RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF SCIENCE

BASIC ENGLISH

1ST TO 4TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

ENGLISH SYLLABI

For Undergraduate Programmes: BA, BSC, BCOM, BBA, BCA, and BSW.

CHOICE BASED CREDIT SYSTEM

(w.e.f. 2020-21 onwards)

BSC/BCA Credit Structure

Part 1: AECC - Ability Enhancement Compulsory Course (Basic English)

Sem	Course Code	Title of the Paper	Teaching Hours/Week	Credits	Marks		Total	Duration of Exam
					Sem End Exam	IA		
I	AECC ENG117	English Gems I	4	3	80	20	100	3 Hrs
II	AECC ENG118	English Gems II	4	3	80	20	100	3 Hrs
III	AECC ENG119	English Language Skills I	4	3	80	20	100	3 Hrs
IV	AECC ENG120	English Language Skills II	4	3	80	20	100	3 Hrs

BSC/BCA PROGRAMME

Part 1: AECC - Ability Enhancement Compulsory Course (Basic English)

Semester I: AECCENG117 - English Gems I

(2 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Introduction: The Course brings in some of the most wonderful, instructive and enjoyable literary pieces to the students beginning their undergraduate course. The literary texts in the course provide powerful contexts to understand human situations in our world and show how they are expressed in English language.

The components of the Language Activity strengthen the students' English vocabulary and understanding of English sentence structure. Internal Assessment consist of Tests and Tutorials ensure that the students are learning well and prepare them for Semester end exams; the one-mark, five-mark and ten-mark questions in the examination are designed to evaluate language comprehension and textual understanding.

Unit 1. Prose (1 hour / week; 25 Marks)

1. The Last Leaf - O Henry
2. The Challenge of Everest – H. P. S. Ahluwalia
3. Zero Budget Natural Farming - Shibu
4. The Kid – Charlie Chaplin

Unit 2. Poetry (1 hour / week; 25 Marks)

1. A Prayer for My Daughter – W. B. Yeats
2. The Road Not Taken – Robert Frost
3. Still I Rise - Maya Angelou
4. How did you Die? - Edmund Vance Cooke

Unit 3. Language Activity (2 Tutorial hours / week; 30 Marks)

1. Word class (Nouns, Adjectives, Verbs, adverbs)
2. Articles
3. Prepositions (Place, Time, Position)
4. Synonyms
5. Antonyms
6. Introducing: Self Introduction and Introducing the chief-guest /principal/president/family member/relatives/friend

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 objective questions 5 from Prose and 5 from Poetry	10x01=10
II.	02 annotations out of 4: (1from Prose and 1 from Poetry	02x05=10
III.	01 essay type question out of 2 from Prose	01x10=10
IV.	01 essay type question out of 2 from Poetry	01x10=10
V.	02 short notes out of 4: One from Prose and one from Poetry	02x05=10
VI.	Language Activity on each topic	06x05=30
Total		80

Semester II: AECCENG118 - English Gems -II
(2 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit 1. Prose (1 hour / week; 25 Marks)

1. Spoken English and Broken English – G. B. Shaw
2. Tiger in the Tunnel - Ruskin Bond
3. Milka Singh: The Flying Sikh – Sonia Sanwalka
4. On Saying Please - A. G. Gardinar

Unit 2. Poetry (1 hour / week; 25 Marks)
1. Once Upon a Time - Gabriel Okara
2. The Quality of Mercy – William Shakespeare
3. La Belle Dame Sans Merci – John Keats
4. Good-bye Party for Miss Pushpa T.S. – Nissim Ezekiel

Unit 3. Language Activity (2 Tutorial hours / week; 30 Marks)
1. Use of Possessive Adjectives and Pronouns
2. Correction of Sentences
3. Use of Negatives
4. Framing Questions (with 'Wh-' words & yes/no questions)
5. Welcome address and vote of thanks
1. Report Writing (Tour, Student Activities, News)

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 objective questions 5 from Prose and 5 from Poetry	10x01=10
II.	02 annotations out of 4: One from Prose and one from Poetry	02x05=10
III.	01 essay type question out of 2 from Prose	01x10=10
IV.	01 essay type question out of 2 from Poetry	01x10=10
V.	02 short notes out of 4: One from Prose and one from Poetry	02x05=10
VI.	Language Activity on each topic	06x05=30
Total		80

Semester III: AECCENG119 - English Language Skills- I
(2 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit 1. Novella (2 hours / week; 50 Marks): The Blue Umbrella - Ruskin Bond

Unit 2. Language Activity (2 Tutorial hours / week; 30 Marks)
1. One-word Substitutes (based on the text)
2. Active and Passive Voice
3. Notice writing
4. Paragraph writing
5. Publication Tips: Revising and rewriting – proof reading – editing
6. Review writing (short films/plays)

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 comprehension questions from the novel	10x1=10
II.	02 essay type questions out of 4 from the novel	2x10=20
III.	04 short notes out of 6 from the novel	4x05=20
IV.	Language Activity on each topic	6x05=30
Total		80

Semester IV: AECCENG120 - English Language Skills - II

(2 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit I:

i. Making enquiries, requests: At least 6 situations: at a hotel, medical shop, railway station, bookshop, bank and college office. (Use of primary and modal auxiliary verbs: be, have, can you please, will you please, can I, if I may, may I, shall we, etc.)

ii. Giving direction/instructions/information: a) Giving directions: (Use of prepositions – in the corner, near, next to, between, opposite to, behind, beyond, along, past, across, down, up, towards, etc.)

Unit II

i. Giving instructions: Being polite, using helping verbs- preparing coffee/tea/recipe, preparing a word file/PPT, conducting a program/campaign, preparing for trech/travel

ii. Telephone conversation (formal and informal): Etiquette, common phrases for beginning and closing conversation etc.

Unit III

i. Academic writing skills: Interpreting and analyzing graphs, tables, diagrams, maps, family/organisation tree, etc.

ii. Fixing an appointment (with doctor, with Bank Manager, with a friend for going to a movie, with

a colleague, etc.)

Unit IV

i. Group Discussion, Public Speaking (short speeches) and Facing an Interview (leadership qualities, positive attitude, etc.)

ii. Short descriptions of people and places (Expressing facts and opinion, use of adjectives)

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)

Theory: 80 Marks

Total : 100 Marks

Question Paper Pattern

I.	2 questions each on i and ii of Unit I	4X5=20
II.	2 questions each on i and ii of Unit II	4X5=20
III.	2 questions each on i and ii of Unit III	4X5=20
IV.	2 questions each on i and ii of Unit IV	4X5=20
Total		80

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RANI CHANNAMMA UNIVERSITY, BELAGAVI
ENGLISH SYLLABI
For Undergraduate Programmes: BA

CHOICE BASED CREDIT SYSTEM
(w.e.f. 2020-21 onwards)

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1. Board of Studies: English (UG)

01	**Prof. Vijay Nagannawar** Department of Studies in English, Rani Chanamma University, Belagavi.	Chairman
02	**Shri. M. C. Karabari** Department of English, BLDEA's College, Jamkhandi.	Member
03	**Shri. U. S. Aralimatti** Department of English, RPD College, Belagavi.	Member
04	**Shri. S. B. Khot** Department of English, MES College, Mudalagi.	Subject Expert
05	**Dr. M. M. Hurali** Department of English, KLE's B. K. College, Chikodi.	Subject Expert
06	**Dr. S. B. Biradar** Department of English, SVM College, Ilkal.	Subject Expert

2. Abbreviation Used

Part 1: AECC – Ability Enhancement Compulsory Course (Basic English)

3. Course Objectives for BA/BSC/BCOM/BBA/BCA/BSW

1) To acquaint the students with communication skills
2) To inculcate life skills and human values
3) To improve the language competency
4) To enhance listening and speaking skills
5) To improve reading and writing skills
6) To encourage to think creatively and critically
7) To expand emotional intelligence
8) To develop gender sensitivity

4. Course Outcomes for BA/BSC/BCOM/BBA/BCA/BSW

On successful completion of CBCS English courses, an undergraduate student will be able to:

1) Read, understand, and interpret a variety of written texts
2) Undertake guided and extended writing using appropriate vocabulary and correct grammar
3) Listen and speak with confidence in both formal and informal contexts with reasonable fluency and acceptable pronunciation
4) Become employable with requisite professional skills, ethics and values

5. Course wise Credit Structure

Choice Based Credit System (CBCS) for **BA Programme**

Part 1: AECC - Ability Enhancement Compulsory Course (Basic English)

Sem	Course Code	Title of the Paper	Teaching Hours/Week	Credits	Marks		Total	Duration of Exam
					Sem End Exam	IA		
I	AECC ENG101	English Language I	4	3	80	20	100	3 Hrs
II	AECC ENG102	English LanguageII	4	3	80	20	100	3 Hrs
III	AECC ENG103	English LanguageIII	4	3	80	20	100	3 Hrs
IV	AECC ENG104	English LanguageIV	4	3	80	20	100	3 Hrs

Course wise Syllabus and Teaching Hours

BA/BSW PROGRAMME

Part 1: AECC - Ability Enhancement Compulsory Course (Basic English)

Semester I: AECCENG101 - English Language - I

(2 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Introduction: The Course brings in some of the most magnificent, instructive and enjoyable artifacts of English literature to the students beginning their undergraduate course. The literary texts in the course provide powerful contexts to understand human situations in our world and show how they are expressed in English language.

The units of the Language Activity strengthen the students' English vocabulary and understanding of English sentence structure. Internal Assessment consists of Tests and Tutorials ensure that the students are learning well and prepare them for Semester end exams; the one-mark, five-mark and ten-mark questions in the examination are designed to evaluate language comprehension and textual understanding.

Unit 1. Prose (1 hour / week; 25 Marks)
1. A Dialogue on Democracy - A. S. Hornsby
2. A Day's Wait - Earnest Hemingway
3. Spoken English and Broken English - G. B. Shaw
4. Round the World on a Bicycle - Bernard Newman

Unit 2. Poetry (1 hour / week; 25 Marks)
1. Where the Mind is without Fear - Rabindranath Tagore
2. True Love - William Shakespeare
3. Don't Quit - Edgar Albert Guest
4. If - Rudyard Kipling

Unit 3. Language Activity (2 Tutorial hours / week; 30 Marks)
1. Word class (Nouns, Adjectives, Verbs, and Adverbs)
2. Articles
3. Prepositions (Place, Time, Position)
4. Synonyms
5. Antonyms
6. Introducing: Self Introduction and Introducing the chief-guest /principal/president/family member/relatives/friend

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)

Theory: 80 Marks

Total : 100 Marks

Question Paper Pattern

I.	10 objective questions 5 from Prose and 5 from Poetry	10x01=10
II.	02 annotations out of 4: One from Prose and one from Poetry	02x05=10
III.	01 essay type question out of 2 from Prose	01x10=10
IV.	01 essay type question out of 2 from Poetry	01x10=10
V.	02 short notes out of 4: One from Prose and one from Poetry	02x05=10
VI.	Language Activity on each topic	06x05=30
Total		80

Semester II: AECCENG102 - English Language - II
(2 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit 1. Prose (1 hour / week; 25 Marks)
1. My Lord, The Baby - Rabindranath Tagore
2. Good Manners - J. C. Mill
3. And then Gandhi Came – Jawaharlal Nehru
4. With the Photographer – Stephen Leacock

Unit 2. Poetry (1 hour / week; 25 Marks)
1. Once upon a Time – Gabriel Okara
2. On His Blindness – John Milton
3. Tables Turned– William Wordsworth
4. Night of the Scorpion – Nissim Ezekiel

Unit 3. Language Activity (2 Tutorial hours / week; 30 Marks)
1. Use of Possessive Adjectives and Pronouns
2. Tenses
3. Use of Negatives (conversion from affirmative to negative and vice versa)
4. Framing Questions (with 'Wh-' words & yes/no questions)
5. Completion of Proverbs / Sayings
6. Punctuations (Capitalization, Comma, Period, Question Mark and Exclamation Mark)

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 objective questions 5 from Prose and 5 from Poetry	10x01=10
II.	02 annotations out of 4: One from Prose and one from Poetry	02x05=10
III.	01 essay type question out of 2 from Prose	01x10=10
IV.	01 essay type question out of 2 from Poetry	01x10=10
V.	02 short notes out of 4: One from Prose and one from Poetry	02x05=10
VI.	Language Activity on each topic	06x05=30
Total		80

Semester III: AECCENG103 - English Language -III
(2 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit 1. Short Stories (2 hours / week; 50 Marks):
1. The Curd Seller – Masti Venkatesh Iyengar
2. The Night Train at Deoli – Ruskin Bond
3. Our Lady's Juggler – Anatole France
4. The Happy Prince – Oscar Wilde
5. Poor Relations – Charles Lamb

Unit 2. Language Activity (2 Tutorial hours / week; 30 Marks)

1. One-word Substitutes
2. Active and Passive Voice
3. Degrees of Comparison
4. Notice writing
5. Narration (fables, films, events)
6. Translation of a Passage (English to Kannada / Hindi / Marathi / Urdu)

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 comprehension questions from the stories	10x01=10
II.	02 essay type questions out of 4 from the stories	02x10=20
III.	04 short notes out of 6 on the stories	04x05=20
IV.	Language Activity on each topic	06x05=30
Total		80

Semester IV: AECCENG104 - English Language - IV
(2 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit 1. Play (2 hours / week; 50 Marks): ***The Merchant of Venice*** – William Shakespeare

Unit 2. Language Activity (2 Tutorial hours / week; 30 Marks)

1. Correction of Sentences (articles, numbers, verbs, prepositions, adjectives, adverbs, concord)
2. Direct and Indirect Speech
3. Transformation of Sentences (Remove 'too….to', 'if', 'as soon as' & Use 'so…that', 'unless', 'No sooner …..than'; Assertive to Exclamatory, Simple to compound / vice versa)
4. Welcome Address and Vote of Thanks
5. Job Application writing
6. Report Writing (Tour, Student Activities, News)

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 comprehension questions from the play	10x01=10
II.	02 annotations out of 4 from the play	02x05=10
III.	02 short notes out of 4 from the play	02x05=10
IV.	02 essay type questions out of 4 from the play	02x10=20
V.	Language Activity:	06x05=30
Total		80

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1ST TO 4TH Semesters

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Academic Year 2020-21 and Onwards

Under

CHOICE BASED CREDIT SYSTEM (CBCS)

Instructions

I.Syllabus Prescribed for B.A. is applicable to B.S.W.

Courses

AECC: Ability Enhancement Compulsory Course

COURSE PATTERNS,SCHEME OF EXAMINATION AND CREDITS
B.A. / B.S.W

SEMESTER	COURSE	TITLE OF THE PAPER	PAPER	TEACHING Hrs per week	Duration of Exam (Hrs)	Marks			CR
						IA	TH	TOTAL	
I	AECC	Study of Prose and poetry	1 T*	4 Hrs	3	20	80	100	3
II	AECC	Study of Prose and poetry	1 T	4 Hrs	3	20	80	100	3
III	AECC	Study of Prose and poetry	1 T	4 Hrs	3	20	80	100	3
IV	AECC	Study of Prose and poetry	1 T	4 Hrs	3	20	80	100	3

Question Paper Pattern and Distribution of Marks

Scheme of Examination:

Assessment Activities for IA will be based on Test/Assign/Tutorial/Viva-voce/Seminar/any other

Assessment for 100 marks will be as follows:(For AECC,DSC,DSE Papers)

IA=20 TH=80 Total=100

Assessment for 50 marks will be as follows: (For SEC Papers)

IA=10 TH=40 Total=50

Question pattern for all AECC Papers

I. Multiple choice questions	(from all text)	1x10=10
II.Essay type question on prose (1out of3)	12x1=12	
III.Summary of the poem	(1 out of3)	12x1=12
IV.Appreciation of verses from Ghazals	(4 out of 6)	03x4=12
V.R C	(4 out of6)	03x4=12
VI.Summary Essay type question on text	(1 out of3)	12x1=12
VII.Short note questions on practical (1 out of2)	10x1=10	

(Que No II to VII are with choice)

B.A. / B.S.W.
SEMESTER I SUBJECT: URDU

AECC (Ability Enhancement Compulsory Course)
TITLE OF THE PAPER: Study of Prose and poetry, various literary form

Unit:I Prose:Nasr1.Waqt
2.Sairpahledarvesh
3.Maulalanawahiduddeensalim
4.Gulbanu
5. Manzoor
Unit: II.Poetry: Nazm
1.Aye Khuda
2.Shahadat H ImamHusain(r) ka
3.Awara hona Gul Bakawali ka
4.Tazheek rozgaar
Unit: III. Poetry: Ghazal
1 Patta patta buta buta
2Dayam pada huwa
3Thani thi dil mein
4Khatir se ya lihaz se
5 Ab na kahin nigah hai
Unit: IV. Fiction
1 Mantar
2 Naya qanoon
3 Main ne aisa kyun kiya
4 Nazara darmiyan hai
Practical:
1. Story telling
2. Collect stories (minimumfive) of the same author

Prescribed Texts: 1**) Asrar -e –adab Compiled by: Dr Khwaja Faraz Badami Dr Md Iqbal I Jarman**

2) Urdu ke dus Afsane Compiled by: Mazjlis e Idarat

B. A. / B. S. W.

SEMESTER II. SUBJECT: URDU

AECC (Ability Enhancement Compulsory Course)
TITLE OF THE PAPER: Study of Prose and poetry, various literary form

UNIT: I Prose:Mazameen

1. Sinema ka ishq
2. Chatari
3. Char paai
4. Internet aur Urdu
5. Gesu-e-urdu gessu daraz

UNIT: II Poetry: Nazm

1.Muflisi
2.Sher se Khitab
3.Shuwa e ummeed
4.Chand taron ka ban

UNIT: III Poetry:Ghazal

1.Husn be parwa
2.Bana bana ke
3.Dil mei ab yun tere
4.Safar mein dhoop to hogi
5.Dhund Chatati jayegi

UNIT: IV Fiction

1.Addu
2.Wo jo kho gaye
3.Bajooka
4.Overcoat

Practical: 1. Read the given poem and find out the difficult words and make 'Farhang'
2.Write an Essay on a current issues and give an appropriate title.

Prescribed Texts: **1) Asrar -e–adab Compiled by: Dr Khwaja Faraz Badami Dr Md Iqbal I Jarman**

2) Urdu ke dus afsane Compiled by: Mazjlis e Idarat

B.A./ B.S.W.

SEMESTER III SUBJECT: URDU

AECC (Ability Enhancement Compulsory Course)

TITLE OF THE PAPER: Study of Prose and poetry, various literary form

UNIT : I Prose:Nasr

1 Urdu Abzad ka saktiyati tajziya
2 Insan kisi hal me khush nahi rehta
3 Naya kanoon
4 Jeene ka Saleeqa
5 Garam coat

UNIT : II Poetry: Nazm

1 Surat taqweer
2 Mukafat e amal
3 Gujre zamane ki yad
4 Mahajan awr mufliss

UNIT: III Poetry: Ghazal

1 Hamare aage ter jab kisi ne
2 Gada dast e ahle karam
3 Asar usko zara nahin hota
4 Aah ko chahiye
5 Gamza nahi hota ke

UNIT: IV Fiction

1 Amawas ki rat
2 Aazmaish
3 Naya qanoon
4 Kalu bhangi

Practical:1. Vocabulary: Homonyms, Homographs, Homophones.
2. Note taking and note making

Prescribed Books:

1) Kaynat -e –adab **Compiled by: Prof. M N Saeed**

2) Numainda Mukhtasar Afsane **Compiled by: Md Tahir farooqi**

B. A./ B.S.W. **SEMESTER IV.** **SUBJECT: URDU**

AECC (Ability Enhancement Compulsory Course)
TITLE OF THE PAPER: Study of Prose and poetry, various literary form

UNIT: I Prose:Nasr

1 Saheb e alam

2.Bhagwan ki aamad

3 Khuda ki hasti

4 Moulavi Abdul haq

5 Ulti ho gayin sab tadbire

UNIT: II Poetry: Nazm

1Chand taron ka bun

2 Mai gotam nahi hoon

3 Subah e aazadi

4 Ukhde khemon ka dard

UNIT: III Poetry:Ghazal

1 Agar kaj ro hain

2 Nigah e naaz jise

3 Dunya ke sitam yaad

4 Bahut pahle se un kadmon ki

5 Dil me ek lehr si

UNIT: IV Fiction

1 Athara aane

2 Sirf ek aana

3 Garhan

4 Chouthi ka joda

Practical:1. Making Albumof famous Urdu poets

2. Making Albumof famous Urdu Prose writer

Prescribed Books:

1) Kaynat -e –adab **Compiled by: Prof. M N Saeed**

2) Numainda Mukhtasar Afsane **Compiled by: Md Tahir farooqi**

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CHOICE BASED CREDIT SYSTEM (CBCS)

I.Syllabus Prescribed for B.Sc. is applicable to B.C.A.

Courses

AECC: Ability Enhancement Compulsory Course

COURSE PATTERNS,SCHEME OF EXAMINATION AND CREDITS

B. Sc./ B. C. A.

I	AECC	Study of Prose and poetry	1 T*	4 Hrs	3	20	80	100	3
II	AECC	Study of Prose and poetry	1 T*	4 Hrs	3	20	80	100	3
III	AECC	Study of Prose and poetry	1 T*	4 Hrs	3	20	80	100	3
IV	AECC	Study of Prose and poetry	1 T*	4 Hrs	3	20	80	100	3

*T- Theory

Question Paper Pattern and Distribution of Marks

Scheme of Examination:

Assessment Activities for IA will be based on Test/Assign/Tutorial/Viva-voce/Seminar/any other

Assessment for 100 marks will be as follows:(For AECC,DSC,DSE Papers)

IA=20 TH=80 Total=100

Assessment for 50 marks will be as follows: (For SEC Papers)

IA=10 TH=40 Total=50

Question pattern for all AECC Papers

I. Multiple choice questions (from all text) 1x10=10
II.Essay type question on prose (1out of3) 12x1=12
III.Summary of the poem (1 out of3) 12x1=12
IV.Appreciation of verses from Ghazals (4 out of 6) 03x4=12
V.R C (4 out of6) 03x4=12
VI.Summary Essay type question on text (1 out of3) 12x1=12
VII.Short note questions on practical (1 out of2) 10x1=10
(Que No II to VII are with choice)

Question pattern for all DSC Papers

I.Multiple choice questions (from all Chapters) 1x10=10
II. Summary/critical / Essay type question of the Prescribed topics (1 out of2) 12x1=12
III.Summary/critical / Essay type question of the Prescribed topics (1 out of2) 12x1=12
IV.Short notes question on Author /character/style /art (2outof3) 06x2=12
V.Summary/critical / Essay type question of the Prescribed topics (1 out of 2) 12x1=12
VII.Summary/critical / Essay type question of the Prescribed topics (1out of2) 12x1=12
VII.Short notes question on Practical (1 outof2) 10x1=10
(Que No II to VII are with choice)

Question pattern for all DSE Papers

I. Multiple choice questions (fromall Chapters) 1x10=10
II. Summary/critical / Essay type question of the Prescribed topics (1 out of2) 12x1=12
III.Summary/critical / Essay type question of the Prescribed topics (1 out of 2) 12x1=12
IV.Short notes question on Author /character/style /art (2outof 3) 06x2=12
V.Summary/critical / Essay type question of the Prescribed topics (1 out of 2) 12x1=12
VII.Summary/critical / Essay type question of the Prescribed topics (1out of 2) 12x1=12
VII.Short notes question on Author /character/style /art (1 out of 2) 10x1=10
(Que No II to VII are with choice)

Question pattern for all SEC Papers

I.Multiple choice questions (from all Chapters) 1x10=10
II.Summary/critical / Essay type question of the Prescribed topics (1 out of2) 10x1=10
III.Summary/critical / Essay type question of the Prescribed topics (1 out of2) 10x1=10
IV.Short notes question on Practical (1out of2) 10x1=10
(Que No II to IV are with choice

B.Sc./ B.C.A. **SEMESTER I** **SUBJECT: URDU**

AECC (Ability Enhancement Compulsory Course)

TITLE OF THE PAPER: Study of Prose and poetry, various literary form

UNIT: I Prose/Nasr

1.Urdu me lisani adab
2.Hali ki seerat
3.Bhola
4.Ham huye tum huye ke meer huye
5.Gul banu

UNIT: II Poetry / Nazm

1) Samp
2) Jugnu
3) Qaid khane ki rat
4) Tehzeeb ka urooj
5) Ay shareef insano

UNIT: III Gazaliyat

1)Dil me kisi ke raah
2)Donu jahan teri mohabbat me
3)Qatl Aashique
4)Husn ma garcha hangam
5)Hasti apni habab ki si
6)Naye kapde badal kar

UNIT: IV Jadeed ilm e science

1)Science aur naaptol
2) Taqat aur harakat
3) Hawa, hawa ka dabaw aur barometer

Practical: 1. Write an article in your own style.
2. Use library and website collect modern poems and prose (five each)

Prescribed Books: **1) Anwar -e –adab** **Compiled by: Prof.Syed Dastgeer pasha**
Prof Mushtaque Ahmad Byakod

Dr Syed Alimullah Husaini

2) Jadeed ilm e science **Compiled by Wazahat Husain**

B. Sc./ B. C. A. PROGRAMMESEMESTER II SUBJECT: URDU

AECC (Ability Enhancement Compulsory Course)
TITLE OF THE PAPER: Study of Prose and poetry, various literary form

UNIT: I Prose/Nasr

1)Sahab baat room me hain
2)Sir sayyed marhoom aur Urdu literature
3)Mumtaz mufti ki yaad me
4)Haj e Akbar
5)Achchi kitab

UNIT: II Poetry / Nazm

1) Shuaa e ummeed
2) Raste ki mantak
3) Dawat e inqilab
4) Banjara nama
5) Dehli marhoom

UNIT: III Gazaliyat

1)Tamasha e der o haram
2)Dil mera jis se behalta
3)Asar usko zaranahi hota
4)Sar me sauda bhi nahi
5)Tere ishq ki inteha

UNIT: IV Jadeed ilm e science

1)Hararat
2) Roshani
3) Miqnatees

Practical: 1. Collect stories (minimumfive) of the same author
2. Precis writing, read passage and Re-write it in your own words.

Prescribed Books**:** **1) Anwar -e –adab** **Compiled by: Prof.Syed Dastgeer pasha**
Prof Mushtaque Ahmad Byakod
Dr Syed Alimullah Husaini

2) Jadeed ilm e science **Compiled by Wazahat Husain**

B. Sc./ B. C. A. **SEMESTER III SUBJECT: URDU**

AECC (Ability Enhancement Compulsory Course)
TITLE OF THE PAPER: Study of Prose and poetry, various literary form

UNIT: I Prose/Nasr

1 Bint e bahadur shah
2 Khutut e Galib
3 Kafan
4 Faiz ahmad
5 Savere jo kal meri aankh khuli

UNIT: II Poetry/ Nazm

1) Qaid khane ki raat
2) Aata daal
3) Jadeed Taraqqiyat
4) Zamana

UNIT: III Gazaliyat

1 piya baaz
2 hasti apani
3 layi hayat
4 Badao
5 chup ke chuoke

UNIT: IV Jadeed ilm e science

1)Bijali
2) Mada aur uski khususiyat
3) Tabayi aur Kemiyai Tagayyur

Practical:

1. Discussion of multiple facets of a Gazal and Urdu poems. Pair work
2. Creating, presenting an argument, expressing a point of view. Pair work

Prescribed Books: **1) Karwan-e –adab** **Compiled by: Prof.Syed Sana ullah**
2) Jadeed ilm e science **Compiled by Wazahat Husain**

B. Sc./ B. C. A.SEMESTER IVSUBJECT: URDU

AECC (Ability Enhancement Compulsory Course)

TITLE OF THE PAPER: Study of Prose and poetry, various literary form

UNIT: I

1 Umar e rafta
2 Mirza Galib ke akhlaq o aadat
3 Kahawatein aur muhaware
4 Mohle ki holi
5 Mumtaz shereen se abbas tabish ka interview

UNIT: II Poetry: Nazm

1Tazheek e rozgaar
2 Khak e Hind
3Taleem e niswan
4bol ari o dharti

UNIT: III Poetry:Ghazal

1 nagah chaman me
2 ye na thi hamari qismat
3lagta nahin
4 ham ne sun
5 Hum hain mata ekucha

UNIT: IV Jadeed ilm e science

1 Pani
2 Hydrozon,oxyzon,carbon dhyoxide
3 Tezab, Khad,aur namak

Practical: 1. Read the given poem and find out the difficult words and make 'Farhang'
2.Write an Essay on a current issues and give an appropriate title.

Prescribed Books: **1) Karwan -e –adab Compiled by: Prof.Syed Sana ullah**
2) Jadeed ilm e science Compiled by Wazahat Husain

RANI CHANNAMMA UNIVERSITY
BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

APPLIED STATISTICS

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

B.A Applied Statistics (UG) Course Structure (CBCS)

Sem	Course Code	Title of the Paper	Teaching Hrs Per	Credits	Marks			Duration of Exam
					Sem Exam	IA	Total	
I	DSC1A	Basics Statistics	5hrs	3	80	20	100	3 hrs
II	DSC1B	Descriptive Statistics	5hrs	3	80	20	100	3 hrs
III	DSC1C	Probability & Standard Probability Distributions	5hrs	3	80	20	100	3 hrs
	SEC-1	Descriptive Statistics–I	2hrs	1	40	10	50	2 hrs
IV	DSC1D	Inference and Exact Sampling Distributions	5hrs	3	80	20	100	3 hrs
	SEC-2	Descriptive Statistics - II	2hrs	1	40	10	50	2 hrs
V	DSC1E	Theory of Sampling	5hrs	3	80	20	100	3 hrs
	DSE1A OR	Population Studies	5hrs	3	80	20	100	3 hrs
	DSE1B	Statistical Quality Control & Econometrics	5hrs	3	80	20	100	3 hrs
	SEC3	Sampling Theory	2hrs	1	40	10	50	2 hrs
VI	DSC1F	ANOVA and Design of Experiments	5hrs	3	80	20	100	3 hrs
	DSE2A OR	Operation Research -I	5hrs	3	80	20	100	3 hrs
	DSE2B	Operation Research-II	5hrs	3	80	20	100	3 hrs
	SEC4	Population Studies	2hrs	1	40	10	50	2 hrs

Regulations and Syllabus

For

APPLIED STATISTICS

In

Three Year B.A. Course (CBCS 2020)

Regulation and Scheme of Instructions:

Regulations for governing three years semesterised bachelor degree programme of Rani Channamma University, Belagavi in Applied Statistics optional subject with effect from academic year 2020-2021.

I. Goals and Objectives:

The following aims have been kept in view while designing the syllabus of Bachelor's programme (BA) in applied statistics as one of the optional statistics.

1. To create an aptitude and bring statistical awareness among the students.
2. To train promising learners to teach Applied Statistics effectively at various level in the educational institutions.
3. To provide adequate Statistical knowledge and skills as required for the competitive examination.
4. To enrich and enhance analytical skill through Statistical techniques.
5. To make the subject student friendly, socially relevant and to cultivate research culture among the students.

II. Admission criteria:

Any candidate who have passed PUC/10+2 with any subjects are eligible to choose Applied Statistics as one of the optional subjects at the under graduate course. The other rules for admission are as per the university and government notifications from time to time.

III. Medium of Instruction:

The medium of instruction will be in English, however, the students are allowed to opt Kannada medium also.

IV. Attendance:

A minimum of 75% of attendance in each semester is compulsory.

V. Scheme of instruction:

1. The M.A/M.Sc./M. Stat. Master degree holders in Statistics can only teach Applied Statistics optional subject at UG level.
2. Applied Statistics as an optional subject at UG level which consists of six semesters. There will be one theory paper in I, II, III and IV semester of 100 marks. Where as in the V and VI semesters there will be two theory papers each of 100 marks. The duration of teaching hours will be 5 hours per week in each paper.

VI. Scheme of Instruction:

1. Theory course shall carry 100 marks of which 80 marks allotted for semester end examination and 20 marks for internal assessment.
2. The semester end examination will be conduction by the university which will be of three hours duration and maximum 80 marks. The minimum passing marks in the examination is of 40 percent.
3. There shall be three sections in every question paper- A, B and C. Section A shall have 12 question of each 2 marks and candidates have to solve 10 questions (10x2 = 20 marks). Section B shall have 8 questions of each 5 marks and the candidate has to solve 6 questions only (6x5 = 30 marks). Section C shall have 6 questions of each 10 marks and the candidate has to solve 3 questions as per instructions (3x10 = 30 marks).

Question Paper Pattern in Applied Statistics (Optional) for all semester

Section A

I. Answer any **10** questions out of **12** questions (Q. No. 1 to 12)

10x2 = 20 Marks.

Section B

II. Answer any **6** questions out of **8** questions (Q. No. 13 to 20)

6x5 = 30 marks.

Section C

III. Answer any **6** questions out of **8** questions (Q. No. 21 to 26)

3x10 = 30 marks.

21 or 22

23 or 24

25 or 26

Total = 80 marks

Rani Channamma University, Belagavi

BLUE PRINT FOR MODEL QUESTION PAPERS IN APPLIED STATISTICS

Questions of 2 marks, 5 marks and 10 marks to be asked from each unit of the semester syllabus of B.A. Course in Applied Statistics is as follows:

B.A.I Semester Applied Statistics Paper
DSC1A - Basic Statistics

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I Introduction to Statistics and Basic concepts	3	2	1	26
II Diagrammatic and Graphical representation	2	2	1	24
III Measures of Central Tendency	3	1	2	31
IV Measures of Dispersion	2	2	1	24
V Skewness and Kurtosis	2	1	1	19
Total Questions	**12**	**08**	**06**	**124**

B.A.II Semester Applied Statistics Paper
DSC1B -Descriptive Statistics

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I Index Numbers	3	2	2	36
II Time Series	3	2	1	26
III Correlation	2	2	1	24
IV Regression	2	1	1	19
V Association of Attributes	2	1	1	19
Total Questions	**12**	**08**	**06**	**124**

B.A.III Semester Applied Statistics
DSC1C – Probability and Standard Probability Distributions

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I Probability	3	2	1	26
II Random variable and Mathematical Expectation	3	2	1	26
III Binomial Distribution	2	1	1	19
IV Poisson Distribution	2	1	1	19
V Normal Distribution	2	2	2	34
Total Questions	**12**	**08**	**06**	**124**

B.A.III Semester Applied Statistics
SEC1 – Descriptive Statistics-I

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I Introduction to Statistics	2	1	0	09
II Measures of Central Tendency	2	2	2	34
III Measures of Dispersion	2	1	1	19
Total Questions	**6**	**4**	**3**	**62**

B.A.IV Semester Applied Statistics
DSC1D - Statistical Inference & Exact Sampling Distributions

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I Sampling Distribution	2	1	00	09
II Estimation	2	2	1	24
III Testing of Hypothesis	2	1	2	29
IV Chi-Square Distribution	3	2	1	26
V *t* - test and F-test	3	2	2	36
Total No of Questions	**12**	**08**	**06**	**124**

B.A.IV Semester Applied Statistics
SEC2 – Descriptive Statistics-II

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I Index Numbers	2	1	1	19
II Time Series	2	1	1	19
III Correlation Regression	2	2	1	24
Total Questions	**6**	**4**	**3**	**62**

B.A.V Semester Applied Statistics

DSC1E – Theory of Sampling

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I Indian Official Statistics	2	1	0	09
II Sampling Theory	3	2	1	26
III Simple Random Sampling	2	1	2	29
IV Stratified Random Sampling	2	2	2	34
V Systematic Random Sampling	3	2	1	26
Total Questions	**12**	**08**	**06**	**124**

B.A.V Semester Applied Statistics

DSE1A – Population Studies

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I National Population Census	3	2	0	16
II Census Survey	3	2	1	26
III Population Studies	2	2	2	34
IV Measurement of Mortality	2	1	1	19
V Life Tables	2	1	2	29
Total Questions	**12**	**08**	**06**	**124**

B.A.V Semester Applied Statistics

DSE1B –SQC & Econometrics

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I Introduction to SQC	3	1	1	21
II Control Charts for Variables	2	1	2	29
III Control Charts for Attributes	3	2	1	26
IV Single sampling and Double Sampling	2	2	1	24
V Econometrics	2	2	1	24
Total Questions	**12**	**08**	**06**	**124**

B.A.V Semester Applied Statistics
SEC3 – Sampling Theory

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I Introduction to Sampling	2	2	0	14
II Simple Random Sampling	2	1	1	19
III Stratified Random Sampling	2	1	2	29
Total Questions	**6**	**4**	**3**	**62**

B.A.VI Semester Applied Statistics

DSC1F – ANOVA & Designs of Experiment

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I One-way Classification	3	2	1	26
II Two-way Classification	3	2	1	26
III Completely Randomised Design	2	1	1	19
IV Randomised Block Design	2	2	1	24
V Latin Square Design	2	1	2	29
Total Questions	**12**	**08**	**06**	**124**

B.A.VI Semester Applied Statistics

DSE2A – Operations Research - I

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I Linear Programming Problems	3	2	2	36
II Transportation Problems	3	2	1	26
III Assignment Problems	2	1	1	19
IV Game Theory	2	2	1	24
V Replacement Theory	2	1	1	19
Total Questions	**12**	**08**	**06**	**124**

B.A.VI Semester Applied Statistics

DSE2B – Operations Research - II

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I Linear Programming Problems	3	2	2	36
II Sequencing	2	1	1	19
III Decision Theory	2	2	1	24
IV Inventory Theory	3	1	1	21
V PERT/CPM	2	2	1	24
Total Questions	**12**	**08**	**06**	**124**

B.A.VI Semester Applied Statistics
SEC4 – Population Studies

Unit and unit Title	Questions from each unit			Total Marks
	2 marks	5 marks	10 marks	
I Census survey	2	2	0	14
II Population Studies & Fertility	2	1	1	19
III Measurement of Mortality	2	1	2	29
Total Questions	**6**	**4**	**3**	**62**

COURSE: DSC1A (BA-I Semester)

Basic Statistics

MAX. MARKS: 100 (SEC- 80 + IA – 20) **Credits: 3**

Teaching Hours: 60 Hours **Workload: 05 Hrs/ Week**

Unit-I. Introduction to Statistics and Basic Concepts:

Meaning, origin, definition, functions and limitations of Statistics, applications in other subjects. Primary and secondary data. Methods of collection of primary data with merits and demerits. Meaning of questionnaire and schedule, Source of secondary data. Classification meaning and objectives of classifications. Types of classifications. Chronological, Geographical, Qualitative and Quantitative classifications. Explanation with examples, Explanation of range, class, class limits, class intervals, width of class interval, open-end classes, inclusive and exclusive classes. Formation of discrete and continues frequency distributions.

Tabulation: Meaning and objectives and Rules of tabulation, format of a table and brief explanation of parts of table. Types of table Preparation of tables of blank table and tables with numerical information 15 Hours

Unit-II. Diagrammatic and Graphical Representation of Data:

Diagrams : Meaning, importance of diagrams and general rules of construction of diagrams. Types of Diagrams – simple, multiple, Component, percentage bar diagrams and pie diagram. Problems on the construction of diagrams. Graphs: Types of Graphs – explanation of construction histogram and examples on obtaining mode from histogram. Method of construction of frequency Polygon and frequency curve. Ogives - method of construction of Ogives and problems obtaining the value of median and quartiles from less than Ogive. Difference between diagrams and graphs. 10 Hours

Unit-III. Measures of Central Tendency:

Meaning, types and functions of measures of central tendency. Essentials of a good measure of central tendency. Arithmetic mean definition, merits and demerits. Properties of arithmetic mean. Problems on both grouped and ungrouped data. Median-definition and merits and demerits. Problems on grouped and ungrouped and data. Mode –definition and merits and demerits. Problems on grouped and ungrouped data. Median Empirical relationship between mean, median and mode. Geometric mean-definition merits and demerits.Harmonic mean mean-definition merits and demerits. Partition values-definition and types of partition values , meaning of quartiles, deciles and percentiles. Problems on Quartiles for grouped ungrouped data only. 15 Hours

Unit-IV. Measures of Dispersion:

Meaning and objectives of measures of dispersion. Essentials of a good measure of dispersion, absolute and relative measures of dispersion. Range –definition, absolute and relative measures formulae. Examples on ungrouped data, Merits and demerits. Quartile Deviation definition, absolute and relative measures formulae. Merits and demerits Problems on grouped and ungrouped data. Mean Deviation definition, absolute and relative formulae, merits & demerits, simple problems on grouped and ungrouped data, Standard Deviation-definition and merits and demerits, Coefficient of Variation, Simple problems on grouped and ungrouped data on standard deviation and coefficient of variation. 15 Hours

Unit-V. Skewness and Kurtosis:

Skewness- Definition, objectives and types of skewness, explanation of positive skewness and negative skewness with diagrams. Measures of skewness- Karl Pearson's coefficient of skewness and Bowley's coefficient of skewness. Simple problems.

Kurtosis :Definition and types of kurtosis. Explanation of types of kurtosis with neat diagrams. Measure of skewness based on moments. Difference between skewness and kurtosis. 05 Hours

Books for Reference:

1. Sankhyshastra and Ganakayantra: by S. G Gani
2. Fundamentals of applied Statistics: by Gupta S C. and V K Kapoor :
3. Applied Statistics: Parimala Mukhyopadhyaya
4. Gupta S P. and V K Kapoor
5. Applied Statistics: by S.P.Gupta
6. Statistics Volume-1. by Raj Mohan

COURSE: DSC1B (BA–II Semester)

Descriptive Statistics

MAX. MARKS: 100 (SEC- 80 + IA – 20) **Credits: 3**

Teaching Hours: 60 Hours **Workload: 05 Hrs/ Week**

Unit-I. Index Numbers:

Definition, uses and limitations of index numbers. Brief description of the steps in the construction of index numbers, Classification of index numbers. Construction of Laspeyre's, Paasche's, Fishers, and Marshall – Edge worth's price and quantity index numbers. Tests of a index number-Unit test, time reversal test, factor reversal test and circular test. Verification of index numbers satisfying the time reversal and factor reversal tests. Problems on index numbers. Cost of living index numbers- meaning, uses and brief description of the steps involved in the construction of a cost of living index number. Methods of construction of cost of living index numbers-Aggregate expenditure method and Family budget method. Problems on cost of living index number. 15 Hours

Unit-II. Time Series:

Definition, uses, components of time series, brief explanation of the components of time series. Measurement of trend by graphical, semi average, moving averages method and problems on them. Method of least squares- Fitting of straight line trend –method, normal equations, obtaining trend values, estimating future trend and plotting the original and trend values on the graph. Fitting of second degree trend–Normal equations and obtaining trend line and making future estimates. 15 Hours

Unit-III. Correlation:

Definition, meaning of types of correlation-positive, negative, perfect and no correlation with examples. Utility of study of correlation analysis. Methods of studying correlation. Scatter diagram-definition and explanation with charts. Merits and demerits, problems regarding construction of scatter diagram. Karl Person's coefficient of correlation-definition, formulae, and properties of coefficient of correlation. Problems based on ungrouped data. Spearman's Rank coefficient of correlation-definition and explanation of method with merits and demerits. Problems with ties and without ties. 15 Hours

Unit-IV. Regression:

Definition of regression, regression equation of X on Y and Y on X, Properties of regression co-efficient and regression lines. Problems based on ungrouped data. Comparison between correlation and regression. 08 Hours

Unit-V. Association of Attributes:

Meaning of association of attributes, definition of class of the first order and second order. Methods of studying association. Yule's coefficient of association and its interpretation. Determination of Yule's coefficient of association in case of two attributes. 07 Hours

Reference Books :

1. Goon A.M., Gupta M.K.: Das Gupta B. (2005): Fundamentals of Statistics, Vol. I, World Press, Calcutta.
2. Mukhopadhyay.P, (2005): Applied statistics, New Central Book agency , Calcutta.
3. Gupta S.C and Kapoor V.K.: Statistical Methods-Sultan Chand & Sons Publications Delhi.

COURSE: DSC1C (BA–III Semester)

Probability and Standard Probability Distributions:

MAX. MARKS: 100 (SEC- 80 + IA – 20) **Credits: 3**

Teaching Hours: 60 Hours **Workload: 05 Hrs/ Week**

Unit-I. Theory of Probability:

Introduction to probability, definition of experiment, outcomes, sample space, events, equally events, mutually exclusive events, exhaustive events, favourable events, complimentary events, independent events, dependent events, union and intersection of events with examples. Classical/mathematical, empirical/Statistical and axiomatic definitions of probability. Statements and proof of $p[\phi] = 0$, $P[S] = 1$and $0 \leq P[A] \leq 1$. Statement and proof of addition theorem of probability for two non-mutually exclusive events and mutually exclusive events. Definition of independent and dependent events with examples. Conditional probability. Statement and proof of multiplication of theorem of probability for dependent independent events. Simple numerical problems. 15 Hours

Unit-II. Random Variable and Mathematical Expectation:

Definition with examples of discrete and continuous random variables. Definition of probability mass function and probability density function. Definition of mathematical expectation, expected mean and variance of discrete random variable. Applications to find expectation of a discrete random variable and variance. Expectation and variance of the functions-a, ax, ax+b,where a and b are constants and related examples.Statement of addition and multiplication theorem of expectation. 15 Hours

Unit-III. Binomial Distribution:

Definition of Binomial variate, Bionomical distribution and probability mass function. Properties of Bionomical distribution. Examples of Occurrence of Binomial distributions, expression for mean and variance of Binomial distribution. Given the mean and variance, finding the parameters. Fitting of Binomial distribution and obtaining expected probabilities. Simple problems. 10 Hours

Unit- IV. Poisson Distribution:

Definition of Poisson variate, Poisson distribution and probability mass function. Examples of occurrence of Poisson Distribution. Properties of Poisson distribution. Expression for mean and variance of Poisson distribution. Computing probabilities for large n and small p for the given λ, finding λ for given two successive probabilities. Conditions for Poisson distribution as limiting form of Binomial distribution. 10 Hours

Unit-V. Normal Distribution:

Definition of normal variate, normal distribution, examples of occurrence of normal distribution, properties of normal distribution and importance of normal distribution, Definition of standard normal variate, standard normal distribution and properties of standard normal distribution. Statement of conditions under which binomial distribution tend to normal distribution. Finding probabilities and expected numbers when mean and variance are given quartile deviation, mean deviation and standard deviation and problems. 10 Hours

Reference and Text Books:

1. S.G. Gani - A New Introductory Statistics Vol-II
2. S.C. Gupta and V.K.Kapoor - Fundamental of Mathematical Statistics.
3. S.C. Gupta - Fundamentals of Statistics.
4. S.P. Gupta - S atistical Methods.
5. D.C. Sanchethi and V.K.Kapoor - Statistics.
6. R.H. Dhareshwar & Sangeetashetti- Business Statistics

COURSE: SEC1 (BA–III Semester)

Descriptive Statistics-I

MAX. MARKS: 50 (SEC- 40 + IA – 10) **Credits: 3**
Teaching Hours: 30 Hours **Workload: 02 Hrs/ Week**

Unit-I. Introduction:

Meaning, origin, definition, functions and limitations, scope of Statistics. Basics Concept of statistics, Primary and secondary data. Presentation – classification meaning , objectives, types. Construction of frequency distribution,. Tabulation - meaning , objectives, types, format of table, parts of table. Procedure for construction of blank tables with examples.
Diagrammatic and Graphical representation data: Meaning, types of diagrams - simple, multiple, subdivided, percentage and pie-diagram. Graphs– Construction Histogram examples on obtaining mode, construction of frequency polygon, frequency curve, ogive curves, construction, obtaining median with simple examples. 15Hours

Unit-II. Measures of Central Tendency:

Meaning, definition, essentials of a good measure of central tendency. A.M, Median and Mode. Merits and demerits, problems on grouped and un-grouped data. Partitioned values - quartiles, deciles and percentiles. 07Hours

Unit-III. Measures of Dispersion:

Meaning and objectives of measures, essential of good measure of dispersion absolute and relative measure - range, quartile deviation, mean deviation, standard deviation problems on grouped and un-grouped data. coefficient of variation, problems on grouped and un-grouped data on standard deviation and coefficient of variation. 08 Hours

Books for Reference:

1. Goon A.M., Gupta M.K. and Dasgupta B. (2002): Fundamentals of Statistics, Vol. I & II, 8th Edn. The World Press, Kolkata.
2. Miller, Irwin and Miller, Marylees (2006): John E. Freund's Mathematical Statistics with Applications, (7th Edn.), Pearson Education, Asia.
3. Gupta S.C and Kapoor V.K.: Fundamentals of Mathematical Statistics- Sultan Chand & Sons publications.

COURSE: DSC1D (BA–IV Semester)

Inference and Exact Sampling Distributions

MAX. MARKS: 100 (SEC- 80 + IA – 20) **Credits: 3**
Teaching Hours: 60 Hours **Workload: 05 Hrs/ Week**

Unit-I. Sampling distribution:

Definition of population, parameter, sample, statistic, sampling distribution of a statistic along with examples. Definition of standard error. Standard error. Standard error of mean, standard deviation, proportion, difference of means and difference of proportions. Uses of standard error and simple problems. 05 Hours

Unit-II. Estimation:

Explanation of the terms – estimation, point estimation and interval estimation. Meaning of confidence interval, confidence limits and confidence co-efficient with examples. Construction of 95% and 99% confidence interval for mean, difference of means, proportion and difference of proportions for large samples only .Numerical problems on the construction of 95% and 99% confidence limits for mean , difference mean, proportion and difference of proportions. 15 Hours

Unit-III. Testing of Hypothesis:

Explanation of terms – Statistical hypothesis, Null hypothesis, Alternative hypothesis, Level of significance, critical region, size of the test , power of the test with examples. Definition of type–I and type–II errors. Large sample tests- Test of significance of population mean, test of significance of equality of means of two populations, test of significance of two population proportion and test of significance of equality proportion of two populations.

15 Hours

Unit-IV. Chi-Square Distribution.

Introduction to Chi-square distribution, definition of Chi-square variate. Properties of chi-square distribution. Applications of chi-square distribution. Chi-square test of goodness of fit. Problems on Chi-square test of Goodness of fit. Chi-square test of independence of attributes. Problems on Chi-square test of independence attributes. 10 Hours

Unit-V. *t* - test and F-test.

Definition of t-statistic, assumptions of t-test, properties of t-distribution and applications of t-test. Study of t-test for testing population mean, equality of means and paired t-test and their applications.

Definition of F-statistic, assumptions of F-test and properties of F-distribution. F-test for equality of variances and its applications. 15 Hours

Books for Reference:

1. Sankhyshastra and Ganakayantra: by S.G. Gani
2. Fundamentals of Applied Statistics –by Gupta S C. and V K Kapoor
3. Applied Statistics- by Parimala Mukhyopadhyaya
4. Applied Statistics- by Gupta S P. and V K Kapoor
5. Statistical Methods-by S.P.Gupta
6. Statistics Volume-1 by Raj Mohan

COURSE: SEC2 (BA–IV Semester)

Descriptive Statistics-II

MAX. MARKS: 50 (SEC- 40 + IA – 10) **Credits: 3**
Teaching Hours: 30 Hours **Workload: 02 Hrs/ Week**

Unit-I. Index Numbers:

Meaning and definition, Uses ,Limitations, Brief description of the steps in the construction of index number types- Price, quantity and Value index. Un-weighted and weighted prices and quantities. Cost of living index numbers, Uses and brief description of the steps involved in the construction of cost of living index number-Aggregate expenditure method and Family budget method. Problems on cost of living index numbers. 8 Hours

Unit–II. Time Series :

Meaning and definition of time series, uses , components of time series. brief explanation of the components Measurement of Time series – Graphical method. semi- averages method, method of moving averages (3,4 and 5 yearly),methods of least square(Linear) simple problems. 8 Hours

Unit-III. Correlation & Regression:

Correlation: Meaning and Definition simple correlation, types- positive, negative and Zero correlation. Methods of measurement- scatter diagram, Karl Pearson's correlation coefficient, Spearman's Rank correlation coefficient, Properties, coefficient of correlation co-efficient. numerical problems.

Regression: Meaning, definition, regression equations. Regression co-efficient, properties of regression lines and regression co-efficient and numerical problems. Comparison between correlation and regression. 14 Hours

Books for Reference:

1. Sankhyshastra and Ganakayantra: by S.G. Gani
2. Fundamentals of Applied Statistics –by Gupta S C. and V K Kapoor
3. Applied Statistics- by Parimala Mukhyopadhyaya
4. Applied Statistics- by Gupta S P. and V K Kapoor
5. Statistical Methods-by S.P.Gupta
6. Statistics Volume-1 by Raj Mohan

COURSE: DSC1E (BA–V Semester)

Theory of Sampling

MAX. MARKS: 100 (SEC-80 + IA – 20) **Credits: 3**
Teaching Hours: 60 Hours **Workload: 05 Hrs/ Week**

Unit-I. Indian Official Statistics:

Statistical organization at the Centre, National Sample Survey–historical background and functions. Central Statistical Organization–introduction, functions and publications of CSO.

5 Hours

Unit-II. Sampling Theory:

Meaning of population, population size, finite population, infinite population, sample, sample size, sampling, sampling technique, sampling unit, sampling frame, census and sample survey, advantages of sampling. Examples of sampling. Types of errors in sample survey-Sampling errors and non-sampling errors- non response errors, response errors and tabulation errors. Advantages of sampling over complete census. Limitation of sampling. Planning of sample survey and its execution. 10 Hours

Unit-III. Simple Random Sampling:

Methods of sampling. Meaning of random sampling. Definition of simple random sampling and formulae for estimating population mean, total and variance. Methods of obtaining simple random sample-Lottery method and Random numbers table method. Merits demerits of methods. Simple problems on simple random sampling method. 15 Hours

Unit-IV. Stratified Random Sampling:

Definition of strata, stratification, and stratified random sampling. Formulae for estimating population mean, total and variance. Methods of allocation and sample size in difference strata-Equal allocation, Proportional allocation and Optimal allocation. Determination of Bowley's formulae for proportional allocation and Neyman's formula for optimal allocation. Advantages and disadvantages of stratified random sampling method. Simple problems on stratified random sampling method, Proportional and Optimal allocation. 15 Hours

UNIT-V. Systematic Random Sampling:

Definition of systematic random sampling. Explanation of methods of obtaining systematic random sample. Examples of systematic random sample. Formulae for estimating population mean, total and variance. Situations of applications of systematic random sampling method. Merits and demerits of systematic random sampling method. Simple problems on systematic random sampling method. 15 Hours

Books for Reference:

1. Sankhyshastra and Ganakayantra: by S.G. Gani
2. Fundamentals of applied Statistics: by Gupta S.C. and V.K. Kapoor
3. Applied Statistics: by Parimala Mukhyopadhyaya
4. Statistics Volume-I: by Raj Mohan

COURSE: DSE1A (BA–V Semester)

Population Studies

MAX. MARKS: 100 (SEC- 80 + IA – 20) **Credits: 3**

Teaching Hours: 60 Hours **Workload: 05 Hrs/ Week**

Unit-I. National Population Census:

Definition of National Population census, official system in India for census enumeration. Reference point of time. Methods of collecting census data - Household method, Canvasser method and Mailed questionnaire method, their merits & demerits. Framing of census questionnaire. 10 Hours

Unit-II. Census Survey:

Methods of conducting census survey. De-facto method and D-jure method, their merits and demerits. Distinction between D-facto and D-jure methods of conducting census. Functions and aims of census. Changes introduced in the house schedule of 2010 and 2011 census.

10 Hours

Unit-III. Population Studies and Fertility Measures:

Meaning of population studies. Definition of vital events and vital Statistics. Sources of vital Statistics- Census enquiry, Registration method, Sample survey, Hospital records and Research and analysis. Uses of Vital Statistics. Merits and demerits. Fertility measure- Definition of fertility and fecundity. Population growth rates- CBR, GFR, ASFR and TFR- definition, merits and demerits , computation and interpretation. Growth Rate – Gross Reproduction Rate and Net Reproduction Rate – definition, merits and demerits, computation and interpretation, difference between GRR and NRR. 15 Hours

Unit-IV. Measurement of Mortality:

Mortality rates – CDR, ASDR, STDR- Definition, merits and demerits , Computation and interpretation, Infant mortality rate (IMR), Neo-Natal morality rate (NNMR) and maternal mortality rate (MMR) – meaning and simple problems. 10 Hours

Unit-V. Life Tables: Life Tables: Definition and uses, components of life table- Explanation of the columns of life table. Abridged life table- King's method. 15 Hours

Books for Reference:

1. Sankhyshastra and Ganakayantra- by S. G Gani
2. Fundamentals of Applied Statistics- by Gupta S C. and V K Kapoor
3. Applied Statistics – by Parimala Mukhyopadhyaya
4. Applied Statistics- by Gupta S P. and V K Kapoor
5. Statistical Methods – by S.P.Gupta
6. Statistics Volume-1 by Raj Mohan

COURSE: DSE1B (BA–V Semester)

SQC & ECONOMETRICS

MAX. MARKS: 100 (SEC- 80 + IA – 20) **Credits: 3**

Teaching Hours: 60 Hours **Workload: 05 Hrs/ Week**

UNIT- I: Introduction: Quality assurance and management, Quality pioneers, Quality costs. Aims &objectives of statistical process control. Chance & assignable causes of variation. Statistical Quality Control, importance of Statistical Quality Control in industry. 10 Hours

UNIT-II: Control charts for variables: Theoretical basis and practical background of control charts for variables. 3 -sigma limits, Warning limits & probability limits. Criteria for detecting lack of control. Derivation of limits and construction of a Mean (x) and R-charts and interpretation. Natural limits &specification limits. . 15 Hours

UNIT-III: Control charts for attributes: np-chart, p-chart c-chart and u-chart.- Construction and examples. 15 Hours

UNIT-IV: Single Sampling & Double Sampling Plans: 10 Hours

UNIT-V: Econometrics: Definition and scope of econometrics. Relationship between variables, the simple linear regression model. 10 Hours

Books for Reference:

1. Gujarati, D. and Sangeetha, S. (2007): Basic Econometrics, 4th Edition, McGraw Hill Companies.
2. Johnston, J. (1972): Econometric Methods, 2nd Edition, McGraw Hill International.
3. Koutsoyiannis, A. (2004): Theory of Econometrics, 2nd Edition, Palgrave Macmillan Limited,
4. Maddala, G.S. and Lahiri, K. (2009): Introduction to Econometrics, 4th Edition, John Wiley & Sons.
5. Applied Statistics by S.C. Gupta & V.K.Kapoor

COURSE: SEC3 (BA–V Semester)

Sampling Theory

MAX. MARKS: 50 (SEC- 40 + IA – 10) **Credits: 3**
Teaching Hours: 30 Hours **Workload: 02 Hrs/ Week**

Unit-I. Introduction:

Meaning of population, population size, finite population, infinite population, sample, sample size, sampling, sampling technique, sampling unit, sampling frame, census and sample survey, advantages of sampling. Examples of sampling. Types of errors in sample survey-Sampling errors and non-sampling errors- non response errors, response errors and tabulation errors. Advantages of sampling over complete census. Limitation of sampling. Planning of sample survey and its execution. 10 Hours

Unit-II. Simple Random Sampling:

Methods of sampling. Meaning of random sampling. Definition of simple random sampling and formulae for estimating population mean, total and variance. Methods of obtaining simple random sample-Lottery method and Random numbers table method. Merits demerits of methods. Simple problems on simple random sampling method. 10 Hours

Unit-III. Stratified Random Sampling:

Definition of strata, stratification, and stratified random sampling. Formulae for estimating population mean, total and variance. Methods of allocation and sample size in difference strata-Equal allocation, Proportional allocation and Optimal allocation. Determination of Bowley's formulae for proportional allocation and Neyman's formula for optimal allocation. Advantages and disadvantages of stratified random sampling method. Simple problems on stratified random sampling method, Proportional and Optimal allocation. 10 Hours

Books for Reference:

1. Sankhyshastra and Ganakayantra: by S.G. Gani
2. Fundamentals of applied Statistics: by Gupta S.C. and V.K. Kapoor
3. Applied Statistics: by Parimala Mukhyopadhyaya
4. Statistics Volume-I: by Raj Mohan

COURSE: DSC1F (BA–VI Semester)

Analysis of Variance and Design of Experiment

MAX. MARKS: 100 (SEC- 80 + IA – 20) **Credits: 3**

Teaching Hours: 60 Hours **Workload: 05 Hrs/ Week**

Unit-I. Analysis of Variance: One-Way Classification:

Definition of analysis of variance and basic assumptions of it. Meaning of assignable and chance variations. ANOVA for one-way classified data-definition, linear mathematical model, assumptions, statement of hypothesis, splitting up of total sum of squares into various components, degrees of freedom and ANOVA table. Simple numerical problems one-way classified data. 10 Hours

Unit-II. Two-Way Classification:

Analysis of variance for two way classification – definition, linear mathematical model, assumptions, statement of hypothesis, splitting up of total sum of squares into various components. Degrees of freedom and ANOVA table. Simple numerical problems on two way classified data. 10 Hours

Unit-III. Completely Randomized Design:

Definition of terms - Experiment, treatment, experimental unit, experimental material, yield, block, precision, experimental error, uniformity trails, and efficiency. Basic principles of design of experiments - Replication Randomization and Local control. Completely Randomized Design-definition, layout, linear mathematical model, assumptions, hypothesis, splitting up of sum of squares into various components, degrees of freedom and ANOVA table. Merits and demerits and applications of CRD. Simple numerical problems. 10 Hours

Unit-IV. Randomized Block Design:

Definition of RBD, layout, linear mathematical model, assumptions, statistical hypothesis, splitting up of total sum of squares into various components, degree of freedom, and ANOVA table. Merits and demerits of RBD. Applications of RBD. Comparative study of CRD and RBD. Simple problems. 15 Hours

Unit-V. Latin Square Design:

Definition of LSD, layout of LSD, linear mathematical model, Assumptions, Statistical hypothesis, splitting up of total sum of squares into various components, degree of freedom and ANOVA table., merits and demerits of LSD, applications of LSD, Comparative study of RBD and LSD. Simple problems. 15 Hours

Books for Reference:

1. Sankhyshastra and Ganakayantra- by S. G Gani
2. Fundamentals of Aapplied Statistics- by Gupta S C. and V K Kapoor
3. Applied Statistics – by Parimala Mukhyopadhyaya
4. Applied Statistics- by Gupta S P. and V K Kapoor
5. Statistical Methods – by S.P.Gupta
6. Statistics Volume-1 by Raj Mohan

COURSE: DSE2A (BA–VI Semester)

Operations Research-I

MAX. MARKS: 100 (SEC- 80 + IA – 20) **Credits: 3**
Teaching Hours: 60 Hours **Workload: 05 Hrs/ Week**

Unit-I. Linear Programming Problem:

Origin, development, definition and applications of Operations research. Definition of LPP and statement of the general linear programming problem. Explanation of terms- Objective function, feasible solution and Optimal solution. Mathematical formulation of linear programming problem in case of two variables with examples. Graphical method of solving LPP and merits and demerits. Simple numerical problems. 15 Hours

Unit-II. Transportation Problem:

Definition of transportation problem, feasible solution, basic feasible solution , degenerate solution, non-degenerate solution and optimal solution. Methods of finding basic feasible solution-North West Corner Rule, Vogel's approximation method (Unit cost penalty method) and Matrix Minima method (lowest cost entry method) simple problems. 15 Hours

Unit-III. Assignment Problem:

Definition of Assignment problem, procedure of solving assignment problem. Simple numerical problems on assignment. 10 Hours

Unit-IV. Game Theory:

Meaning of a competitive game. Explanation of a n-person game, a two-person game, a two-person zero-sum game, strategy, pure and mixed strategies, pay off matrix, meaning of maximin and minimax, and saddle point. Solving rectangular game with maximin-minimax principle and dominance principle. 10 Hours

Unit-V. Replacement Theory:

Meaning, need for replacement, the principle of replacement in case of items that deteriorate with age (discrete case) without considering the change in money value. The formula for finding the average annual cost and problems relating to it. 10 Hours

Books for Study:

1. Kantiswaroop,Man Mohan and P.K Gupta (2003):Operations Research-Sultan Chand & co .
2. S.Kalavathy. Operations Research, Vikas Publishing House.
3. Sharma J.K: Operations Research - Theory and Applications, Mc Millan India Ltd., New Delhi
4. Anand Sharma: Quantitative techniques, Himalaya Publishing House.
5. Kapoor V.K: Operations Research- Sultan Chand & Co.
6. Vohra N.D. Quantitative Techniques in Management. Mc Graw Hill Education Pub's

COURSE: DSE2B (BA–VI Semester)

Operations Research-II

MAX. MARKS: 100 (SEC- 80 + IA – 20) **Credits: 3**
Teaching Hours: 60 Hours **Workload: 05 Hrs/ Week**

Unit-I. Linear Programming Problem:

Origin, development, definition and applications of Operations research. Definition of LPP and statement of the general linear programming problem. Explanation of terms- Objective function, feasible solution and Optimal solution. Mathematical formulation of linear programming problem in case of two variables with examples. Graphical method of solving LPP and merits and demerits. Simple numerical problems. 15 Hours

Unit-II. Sequencing Problems: Introduction, Terminology and notations. Principle assumptions. Solution of sequencing problems. Processing of *n* jobs through 2 machines. Processing *n* jobs through 3 machines. 10 Hours

Unit-III. Decision Theory: Introduction, basic terminology, steps in decision making. Decision making environment - Decision under conditions of uncertainty – maximax criterion, maximin criterion, Laplace criterion, Regret criterion and Hurwicz criterion. Decisions making under conditions of risk – EMV, EVPI and EOL. Decision tree analysis.

15 Hours

Unit-IV. Inventory Theory: Description of Inventory system. Inventory costs. Demand, lead time. EOQ model without shortages – Purchasing model with uniform demand and with finite replenishment rate. Examples based on these models. 10 Hours

Unit-V. PERT-CPM: Introduction, Historical development of PERT/CPM techniques. Basic steps in PERT/CPM techniques. Network diagram representation. Rules for drawing network diagram. Labelling: Fulkerson's I-J rule. Time estimation and Critical path in network analysis. Project evaluation and Review techniques (PERT). Uses of PERT and CPM for management. 10 Hours.

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Books for Study:

1. Kantiswaroop,ManMohan and P.K Gupta (2003):Operations Research-Sultan Chand & co .
2. S.Kalavathy. Operations Research, Vikas Publishing House.
3. Sharma J.K: Operations Research - Theory and Applications, Mc Millan India Ltd., New Delhi
4. Anand Sharma: Quantitative techniques, Himalaya Publishing House.
5. Kapoor V.K: Operations Research- Sultan Chand & Co.
6. Vohra N.D. Quantitative Techniques in Management. Mc Graw Hill Education Pub's

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COURSE: SEC4 (BA–VI Semester)

Statistical Data Analysis

MAX. MARKS: 50 (SEC- 40 + IA –10) **Credits: 3**
Teaching Hours: 30 Hours **Workload: 02 Hrs/ Week**

Unit-I. Introduction:

Meaning, objectives and motivation in research. Types of research, research approach, and significance of research. Research problems: Definition, selection and necessity of research problems, techniques in defining a research problem. 10 Hours

Unit-II. Survey Methodology and Data Collection

Introduction, inference and error in surveys, target population, sampling frames and coverage error. Methods of data collection, non response, questions and answers in surveys. 10 Hours

Unit-III. Statistical Analysis and Report Writing

Measures of Central Tendency and average. Measures of Dispersion, Skewness and Kurtosis.

Layout of research report and characteristics of a good research report. 10 Hours

Books for Reference:

1. Research Methodology Methods and Techniques: Kothari C.R. (2004)- New age International (P) Ltd, Publishers.

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF SCIENCE

BOTANY

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

CHOICE BASED CREDIT SYSTEM [CBCS]
B.Sc. Program with Optional Subject: BOTANY

B.Sc., BOTANY Syllabus under CBCS scheme (With effect from the academic year 2020-21 onwards)								
Sem	**Part**	**Paper Code**	**Title of the Paper**	**Hours/ Week**	**Marks**			**Subject Credits**
					IA	**Exam**	**Total**	
I	**Part – 1 DSC**	BOTDSCT1.1	Biodiversity (Microbes, Algae, Fungi and Archegoniate)	4	20	80	100	3
		BOTDSCP1.1	Practical I	3	10	40	50	1
		Total : Hours / Credits		**7**			**150**	**4**
II	**Part – 1 DSC**	BOTDSCT2.1	Plant Ecology and Diversity of angiosperms	4	20	80	100	3
		BOTDSCP2.1	Practical II	3	10	40	50	1
		Total : Hours / Credits		**7**			**150**	**4**

B.Sc., BOTANY Syllabus under CBCS scheme (With effect from the academic year 2021-22 onwards)								
Sem	**Part**	**Paper Code**	**Title of the Paper**	**Hours/ Week**	**Marks**			**Subject Credits**
					IA	**Exam**	**Total**	
III	**Part – 1 DSC**	BOTDSCT3.1	Plant Anatomy and Embryology	4	20	80	100	3
		BOTDSCP3.1	Practical III	3	10	40	50	1
	Part – 2 SEC	BOTSECT3.2	Herbal technology	2	10	40	50	2
		Total : Hours / Credits		**9**			**200**	**6**
IV	**Part – 1 DSC**	BOTDSCT4.1	Plant Physiology and Biochemistry	4	20	80	100	3
		BOTDSCP4.1	Practical IV	3	10	40	50	1
	Part – 2 SEC	BOTSECT4.2	Nursery and Gardening	2	10	40	50	2
		Total : Hours / Credits		**9**			**200**	**6**

CHOICE BASED CREDIT SYSTEM [CBCS]
B.Sc. Program with Optional Subject: BOTANY

B.Sc., BOTANY Syllabus under CBCS scheme (With effect from the academic year 2022-23 onwards)								
Sem	**Part**	**Paper Code**	**Title of Paper**	**Hours/ Week**	**Marks**			**Subject Credits**
					IA	**Exam**	**Total**	
V	**Part – 1 DSE**	BOTDSET5.1	Economic Botany and Biotechnology	4	20	80	100	3
		BOTDSEP5.1	Practical V	3	10	40	50	1
		BOTDSET5.2A (**Elective I)**	Cell and Molecular Biology	4	20	80	100	3
		BOTDSEP5.2A **(Elective I)**	Practical VIA	3	10	40	50	1
		BOTDSET5.2B **(Elective II)**	Genetics, Plant Breeding and Evolution	4	20	80	100	3
		BOTDSEP5.2B **(Elective II)**	Practical VIB	3	10	40	50	1
	Part – 2 SEC	BOTSECT5.3	Medicinal Botany	2	10	40	50	2
		Total : Hours / Credits		**16**			**350**	**10**
Note: Students have to choose either Elective-I or Elective-II								
VI	**Part – 1 DSE**	BOTDSET6.1	Analytical Techniques in Plants.	4	20	80	100	3
		BOTDSEP6.1	Practical VII	3	10	40	50	1
		BOTDSET6.2A (**Elective III)**	Research Methodology	4	20	80	100	3
		BOTDSEP6.2A (**Elective III)**	Practical VIIIA	3	10	40	50	1
		BOTDSET6.2B (**Elective IV)**	Biofertilizers and Organic Farming	4	20	80	100	3
		BOTDSEP6.2B (**Elective IV)**	Practical VIIIB	3	10	40	50	1
	Part – 2 SEC	BOTSECT6.3	Ethnobotany	2	10	40	50	2
		Total : Hours / Credits		**16**			**350**	**10**
Note: Students have to choose either Elective-III or Elective-IV								

T: Theory, P: Practical, CC/EA: Co-curricular/Extension Activities. AECC: Ability Enhancement Compulsory Course, DSC: Discipline Specific Course. DSE: Discipline Specific Elective, SEC: Skill Enhancement Course)

Note: Duration of examinations is 03 Hrs for 80 Marks theory and 02 hrs for 40 marks theory. For practical's duration of examination is 03 Hrs.

First Semester B.Sc. (Botany)

Paper Code: BOTDSCT1.1 **Paper Title:** Biodiversity (Microbes, Algae, Fungi and Archegoniate)
Teaching Hours: 4 Hrs / Week **Marks:** Th-80+IA-20
Total hours: 60 **Credits: 3**

Unit1:

- **Viruses** : Discovery, general structure, replication (general account), DNA virus (T-phage); Lytic and lysogenic cycle, RNA virus (TMV); Economic importance;
- **Bacteria:** Discovery, General characteristics and cell structure; Reproduction – vegetative, asexual and recombination (conjugation, transformation and transduction); Economic importance.
- **Viral Plant Diseases**: TMV. Vein clearing, Dwarfing, Yellowing and BBTV disease.
- **Bacterial Plant Disease**: Citrus canker, Bacterial blight and Crown gall disease.

15 hours

Unit2:

- **Algae**: General characteristics; Ecology and distribution; Range of thallus organization and reproduction; Classification of algae by smith; Morphology and life-cycles of the following: *Nostoc*, *Oedogonium*, *Vaucheria*, *Volvox*, *Ectocarpus & Batrachospermum*. Economic importance of algae.
- **Fungi**: Introduction- General characteristics, ecology and significance, range of thallus organization, cell wall composition , nutrition, reproduction and classification; True Fungi- General characteristics, ecology and significance, life cycle of *Rhizopus* (Zygomycota), *Penicillium* (Ascomycota), *cercospora (Deutoromycota), Puccinia, Agaricus* (Basidiomycota);
- **Fungal Diseases:** Late blight of potato, White rust of *Albugo candida*., Black rust of *Puccinia*, Powdery mildew and Early Blight of Tomato.
- **Symbiotic Associations-Lichens**: General account, reproduction and significance; Mycorrhiza: ectomycorrhiza and endomycorrhiza and their significance **15 hours**.

Unit 3:

- **Introduction to Archegoniate:** Unifying features of archegoniates, Transition to land habit, Alternation of generations.
- **Bryophytes:** General characteristics, adaptations to land habit, Classification, Range of thallus organization. Classification (up to family), morphology, anatomy and reproduction of *Riccia*, *Marchantia, Anthoceros* and *Funaria* (Developmental details not to be included). Ecology and economic importance of bryophytes with special mention of *Sphagnum*.

15 hours

Unit 4:

- **Pteridophytes:** General characteristics, classification, Early land plants (*lepidodendron, Lepidocarpon, Calamites*). Classification (up family), morphology, anatomy and reproduction of *Selaginella*, *Equisetum* and *Pteris*. (Developmental details not to be included). Heterospory and seed habit, stelar evolution. Ecological and economical importance of Pteridophytes.
- **Gymnosperms:** General characteristics, classification. Classification (up to family), morphology, anatomy and reproduction of *Cycas, Gnetum* and *Pinus*. (Developmental details not to be included). Ecological and economical importance. **15 hours**

Practical

Paper Code: BOTDSCTP1.1 **Paper Title:** Biodiversity (Microbes, Algae, Fungi and Archegoniate)
Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10
Credits: 1

1. EMs/Models of viruses – T-Phage and TMV, Line drawing/Photograph of Lytic and Lysogenic Cycle.
2. Types of Bacteria from temporary/permanent slides/photographs; EM bacterium; Binary Fission; Conjugation; Structure of root nodule.
3. Gram staining
4. Study of vegetative and reproductive structures of *Volvox, Nostoc,* (electron micrographs), *Oedogonium, Vaucheria, Ectocarpus and Batrachospermum* through temporary preparations and permanent slides.
5. *Rhizopus and Penicillium*: Asexual stage from temporary mounts and sexual structures through permanent slides.
6. *Cercospora Specimens*/photographs and tease mounts.
7. *Puccinia*: Herbarium specimens of Black Stem Rust of Wheat and infected Barberry leaves; section/tease mounts of spores on Wheat and permanent slides of both the hosts.
8. *Agaricus*: Specimens of button stage and full grown mushroom; Sectioning of gills of *Agaricus*.
9. Lichens: Study of growth forms of lichens (crustose, foliose and fruticose)
10. Mycorrhiza: ectomycorrhiza and endomycorrhiza (Photographs)
11. ***Marchantia***-morphology of thallus, w.m. rhizoids and scales, v.s. thallus through gemma cup, w.m. gemmae (all temporary slides), v.s. antheridiophore, archegoniophore, L.S. sporophyte (all permanent slides).
12. ***Funaria***- morphology, w.m. leaf, rhizoids, operculum, peristome, annulus, spores (temporary slides); permanent slides showing antheridial and archegonial heads, L. S. capsule and protonema.
13. ***Selaginella***- morphology, w.m. leaf with ligule, T.S. stem, w.m. strobilus, w.m. microsporophyll and megasporophyll (temporary slides), L.S. strobilus (permanent slide).
14. ***Equisetum***- morphology, T.S. internode, L.S. strobilus, T.S. strobilus, w.m. sporangiophore, w.m. spores (wet and dry) (temporary slides); T.s rhizome (permanent slide).
15. ***Pteris***- morphology, T.S. rachis, v.s. sporophyll, w.m. sporangium, w.m. spores (temporary slides), T.S. rhizome, w.m. prothallus with sex organs and young sporophyte (permanent slide).
16. ***Cycas***-morphology (coralloid roots, bulbil, leaf), T.S. coralloid root, T.S. rachis, v.s. leaflet, v.s. microsporophyll, w.m. spores (temporary slides), L.S. ovule, T.S. root (permanent slide).
17. ***Pinus***- morphology (long and dwarf shoots, w.m. dwarf shoot, male and female), w.m. dwarf shoot, T.S. needle, T.S. stem, L.S./T.S. male cone, w.m. microsporophyll, w.m. microspores (temporary slides), L S. female cone, T. L.S. & R. L.S. stem (permanent slide).
18. Study tour two days compulsory.

Suggested Readings

1. Kumar, H.D. (1999). Introductory Phycology. Affiliated East-West. Press Pvt. Ltd. Delhi. 2nd edition.
2. Tortora, G.J., Funke, B.R., Case, C.L. (2010). Microbiology: An Introduction, Pearson Benjamin Cummings, U.S.A. 10th edition.
3. Sethi, I.K. and Walia, S.K. (2011). Text book of Fungi & Their Allies, Mac Millan Publishers Pvt. Ltd.,Delhi.
4. Alexopoulos, C.J., Mims, C.W., Blackwell, M. (1996). Introductory Mycology, John Wiley and Sons (Asia), Singapore. 4th edition.
5. Raven, P.H., Johnson, G.B., Losos, J.B., Singer, S.R., (2005). Biology. Tata McGraw Hill, Delhi,India.
6. Vashishta, P.C., Sinha, A.K., Kumar, A., (2010). Pteridophyta, S. Chand. Delhi, India.
7. Bhatnagar, S.P. and Moitra, A. (1996). Gymnosperms. New Age International (P) Ltd Publishers, New Delhi, India.
8. Parihar, N.S. (1991). An introduction to Embryophyta. Vol. I. Bryophyta. Central Book Depot, Allahabad.

Second Semester B.Sc. (Botany)

Paper Code: BOTDSCT2.1 **Paper Title:** Plant Ecology and Diversity of angiosperms
Teaching Hours: 4 Hrs / Week **Marks:** Th-80+IA-20
Teaching hours: 60 **Credits:** 3

Unit1:

- **Atmosphere:** Atmosphere gaseous composition and Atmospheric layers.
- **Ecological factors:** Soil, weathering, composition, pedogenesis and soil profile. Water: States of water in the environment, precipitation types. Light and temperature: Variation Optimal and limiting factors; Shelford law of tolerance. Adaptation of hydrophytes and xerophytes.

15 hours

Unit 2:

- **Plant Succession:** Characters; Ecotone and edge effect; Succession; Hydrosere and Xerosere.
- **Ecosystem:** Structure; energy flow trophic organisation; Food chains and food webs, Ecological pyramids production and productivity; Biogeochemical cycles; carbon, nitrogen and Phosphorous cycles.
- **Phytogeography:** Principle, biogeographical zones; Endemism.

15 hours

Unit3

- **Morphology of Angiosperms:** Root, Stem, leaf and its modifications: inflorescence, flower and fruit.

15 hours

Unit4:

- **Plant Taxonomy:** Introduction, Identication Functions of Herbarium, important herbaria and botanical gardens of the world and India; Documentation: Flora, Keys: single access and multi-access
- **Classification**

  Types of classification-artificial, natural and phylogenetic. Bentham and Hooker (upto series), Engler and Prantl (upto series).
- **Taxonomic hierarchy**

  Ranks, categories and taxonomic groups, Taxonomic evidences from palynology, cytology, phytochemistry and molecular data.
- **Botanical nomenclature**

  Principles and rules (ICN); ranks and names; binominal system, typification, author citation, valid publication, rejection of names, principle of priority and its limitations.

15 hours

Practical

Paper Code: BOTDSCP2.1 **Paper Title:** Plant Ecology and Diversity of angiosperms
Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10
Credits: 1

1. Study of instruments used to measure microclimatic variables: Soil thermometer, maximum and minimum thermometer, anemometer, psychrometer /hygrometer, rain gauge and lux meter.
2. Determination of pH, and analysis of two fertile soil samples for carbonates, chlorides, nitrates, sulphates, organic matter and base deficiency by rapid field test.
3. (a) Study of morphological adaptations of hydrophytes (Submerged, Free floating, Amphibious and Rooted floating) and xerophytes (succulent and non succulent).
   (b)Study of biotic interactions of the following: Stem parasite (*Cuscuta),* Root parasite (Orobanche), Epiphytes, Predation (Insectivorous plants)
4. Morphology of Angiosperms: Root, Stem, leaf and its modifications: Inflorescence, Flower and Fruit.
5. Study of vegetative and floral characters of the following families (Description,V.S. flower, section of ovary, floral diagram/s, floral formula/e and systematic position according to Bentham & Hooker's system of classification): Polypetalae: Magnoliaceae, Malvaceae, Rutaceae, Brassicaceae. Gamopetaleae– Rubiaceae, Asteraceae, Apocynaceae, Asclepiadaceae. Apetalae-Euphorbiaceae. Monocot- Poaceae
6. Mounting of a properly dried and pressed specimen of any wild plant with herbarium Label (Herbarium any 10 to be submitted in the record book).
7. Study tour for minimum 3 days compulsory.

Suggested Readings

1. Kormondy, E.J. (1996). Concepts of Ecology. Prentice Hall, U.S.A. 4th edition.
2. Sharma, P.D. (2010) Ecology and Environment. Rastogi Publications, Meerut, India. 8th edition.
3. Simpson, M.G. (2006). *Plant Systematics.* Elsevier Academic Press, San Diego, CA, U.S.A.
4. Singh, G. (2012). *Plant Systematics:* Theory and Practice. Oxford & IBH Pvt. Ltd., New Delhi. 3rd edition.

Third Semester B.Sc. (Botany)

Paper Code: BOTDSCT3.1 **Paper Title:** Plant Anatomy and Embryology
Teaching Hours: 4 Hrs / Week **Marks: Th-80+IA-20**
Teaching hours: 60 **Credits: 3**

Unit1:

- **Tissues**: Tunica carpous theory and apical theory, meristems and its types; Simple and complex tissues.
- **The tissue system:** Epidermal tissue system, Ground and fundamental tissue system and Vascular or conducting tissue system.
- **Organ:** Structure of dicot and monocot root stem and leaf.

15 hours

Unit 2:

- **Secondary Growth**: Stelar and Extrastelar Secondary growth in root and stem, Wood (heartwood and sapwood). Abnormal secondary growth in Bignonia, Dracaena and Beet root.
- **Leaf fall and healing of wounds**.
- **Special tissues**: Secretary.
- **Mechanical tissues in plants**

15 hours

Unit3:

- **Structural organization of flower:** Structure of anther and pollen; Structure and types of ovules; Types of embryo sacs, organization and ultra structure of mature embryo sac.
- **Pollination and fertilization:** Pollination mechanisms and adaptations; Types of pollination: Anemophily, Entemophily, hydrophily. Double fertilization; Endosperm types, structure and functions.

15 hours

Unit 4:

- **Embryo and endosperm:** Dicot and Monocot seed-structure, appendages and dispersal mechanisms. Structure and development of Dicot and Monocot embryo; Embryo- endosperm relationship.
- **Apomixis and polyembryony:** Definition, Classification and practical applications.

15 hours

Practical

Paper Code: BOTDSCP3.1 **Paper Title:** Plant Anatomy and Embryology
Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10
Credits: 1

1. Study of meristems through permanent slides and photographs.
2. Tissues (parenchyma, collenchyma and sclerenchyma); Macerated xylary elements, Phloem (Permanent slides, photographs)
3. Stem: Monocot: *Zea mays;* Dicot: *Helianthus*; Secondary growth: *Helianthus* (Permanent slides).
4. Root: Monocot: *Zea mays*; Dicot: *Helianthus*; Secondary growth: *Helianthus* (Permanent slides).
5. Leaf: Dicot and Monocot leaf (Permanent slides).
6. Structure of anther (young and mature), tapetum (amoeboid and secretory) (Permanent slides).
7. Types of ovules: anatropous, orthotropous, circinotropous, amphitropous / campylotropous.
8. Female gametophyte: *Polygonum* (monosporic) type of Embryo sac Development (Permanent slides/photographs).
9. Ultrastructure of mature egg apparatus cells through electron micrographs.
10. Pollination types and seed dispersal mechanisms (including appendages, aril, caruncle) (Photographs ands pecimens).
11. Dissection of embryo/endosperm from developing seeds.
12. Calculation of percentage of germinated pollen in a given medium.

Suggested Readings

1. Bhojwani, S.S. & Bhatnagar, S.P. (2011). Embryology of Angiosperms. Vikas Publication House Pvt. Ltd. New Delhi. 5th edition.
2. Mauseth, J. D. (1988).Plant Anatomy.The Benjamin/Cummings Publisher, USA.

Third Semester B.Sc. (Botany) Skill Enhancement Course

Paper Code: BOTSECT3.2 **Paper Title:** Herbal technology
Teaching Hours: 2Hrs / Week **Marks:** Th-40+IA-10
Teaching Hours: 30 **Credits :**2

Unit1:

- **Herbal medicines**: History and scope, definition of medical terms and role of medicinal plants in Siddha systems of medicine; cultivation, harvesting, processing, storage, marketing and utilization of medicinal plants.
- **Pharmacognosy**: Systematic position medicinal uses of the following herbs in curing various ailments; Tulsi, Ginger, Fenugreek, Indian Gooseberry and Ashoka.

15 hours

Unit2:

- **Phytochemistry**: Active principles and methods of their testing, identification and utilization of the medicinal herbs; *Catharanthus roseus* (cardiotonic), *Withania somnifera* (drugs acting on nervous system), *Clerodendron phlomoides* (anti-rheumatic) and *Centella asiatica* (memory booster).

- **Analytical pharmacognosy:** Drug adulteration, types, methods of drug evaluation, Biological testing of herbal drugs, Phytochemical screening tests for secondary metabolites (alkaloids, flavonoids, steroids, triterpenoids, phenolic compounds)

- **Medicinal plant banks** micropropagation of important species (*Withania somnifera*, neem and tulsi, Herbal foods and future of pharmacognosy.)

15 hours

Suggested Readings

1. Glossary of Indian medicinal plants, R. N. Chopra, S. L. Nayarand I. C. Chopra, 1956. C.S.I.R, New Delhi.

2. The indigenous drugs of India, Kanny, Lall, Deyand Raj Bahadur, 1984. International Book Distributors.

3. Herbal plants and Drugs Agnes Arber, 1999. Mangal Deep Publications.

4. Ayurvedic drugs and their plant source. V. V. Sivarajan and Balachandran Indra1994. Oxford IBH publishing Co.

5. Ayurveda and Aromatherapy. Miller, Light and Miller, Bryan, 1998. Banarsi dass, Delhi.

6. Principles of Ayurveda, Anne Green, 2000. Thomsons, London.

7. Pharmacognosy, Dr. C. K. Kokate et al. 1999. Nirali Prakashan.

Fourth Semester B.Sc. (Botany)

Paper Code: BOTDSCT4.1 **Paper Title:** Plant Physiology and Biochemistry
Teaching Hours: 4 Hrs / Week **Marks:** Th-80+IA-20
Teaching Hours: 60 **Credits:** 3

Unit 1:

- **Plant-water relations:** Solutions, Suspensions, colloids, True solutions, Molarity, Molar, Buffer, Molal, pH, Emulsion and Gel. Permeability, Diffusion, Osmosis, Imbibition, membranes, Endoosmosis, Exoosmosis, osmotic pressure, Turger pressure, Wall pressure, Relation between O.P, D.P.D and T.P. Importance of water, water potential and its components;
- **Transpiration**: Transpiration types, Structure of stomata, Types of stomata, stomatal Movment, Starch sugure Interconversion theory and K^+ ion pump theory. significance of transpiration; Factors affecting transpiration; guttation,
- **Pathways of water movment:** Apoplast and symplast.
- **Mineral nutrition:** Essential elements, macro and micronutrients; Criteria of essentiality of elements; Role of essential elements; Transport of ions across cell membrane, active and passive transport, carriers, channels and pumps.

15 hours

Unit 2:

- **Ascent of sap, translocation of solutes:** Theories on Ascent of sap: Root pressure theory and transpiration pull theory. Composition of phloem sap, girdling experiment; Pressure flow model; Phloem loading and unloading.
- **Photosynthesis:** Photosynthetic Pigments (Chl a, b, xanthophylls, carotene); Photosystem I and II, reaction center, antenna molecules; Electron transport and mechanism of ATP synthesis; C_3, C_4 and CAM pathways of carbon fixation; Photorespiration, Blackmen's law of Limiting factor and factors affecting photosynthesis.

15 hours

Unit3:

- **Respiration:** Aerobic cellular respiration: Glycolysis, TCA cycle, Oxidative phosphorylation & Pentose Phosphate Pathway. Anaerobic respiration: Alcoholic lactic acid and acetic acid fermentation amphibolic pathway. Respiratory quotient of carbohydrate, protein and organic acid.
- **Enzymes:** Structure and properties, Classification, Mechanism of enzyme catalysis Lock and key model and induced fit model, enzyme inhibition and factors affecting enzyme activity.
- **Nitrogen metabolism:** Nitrogen cycle, Biological nitrogen fixation; Nitrate and ammonia assimilation.

15 hours

Unit 4:

- **Plant growth regulators:** Discovery and physiological roles of auxins, gibberellins, cytokinins, ABA, ethylene. Application of Phytoharmones.
- **Plant Movements:** Photoperiodism (SDP, LDP, Day neutral plants); Phytochrome (discovery and structure), red and far red light responses on photomorphogenesis; Vernalization.
- Structure and classification of Proteins, carbohydrates and Lipids. **15 hours**

Practical

Paper Code: BOTDSCP4.1 **Paper Title:** Plant Physiology and Biochemistry
Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10
Credits: 1

1. Determination of osmotic potential of plant cell sap by plasmolytic method.
2. Calculation of stomatal index and stomatal frequency of a mesophyte and a xerophyte.
3. Demonstration of rate of transpiration by Ganong's photometer / Farmer's photometer
4. Demonstrate the activity of catalase and study the effect of pH and enzyme concentration.
5. To study the effect of light intensity and bicarbonate concentration on O_2 evolution in photosynthesis.
6. Comparison of the rate of respiration.
7. Separation of Chlorophyll pigments by paper chromatography.
8. Qualitative test for proteins, carbohydrate and lipids.
9. Demonstration experiments
   - Bolting.
   - Effect of auxins on rooting.
   - Suction due to transpiration.
   - R.Q. (Ganong's respirometer.)
   - Phototropism.
   - Seismonastic movements.
   - Nyctinastic movements.

Suggested Readings

1. Taiz, L., Zeiger, E., (2010). Plant Physiology. Sinauer Associates Inc., U.S.A. 5th Edition.
2. Hopkins, W.G., Huner, N.P., (2009). Introduction to Plant Physiology. John Wiley & Sons, U.S.A. 4th Edition.
3. Bajracharya, D., (1999). Experiments in Plant Physiology- A Laboratory Manual. Narosa Publishing House, New Delhi.

Fourth Semester B.Sc. (Botany) Skill Enhancement Course

Paper Code: BOTSECT4.2 **Paper Title :**Nursery and Gardening
Teaching Hours: 2Hrs / Week **Marks:** Th-40+IA-10
Teaching Hours: 30 **Credits :**2

Unit 1:

- **Nursery:** Definition, objectives and scope, building up of infrastructure for nursery, planning and seasonal activities. Planting, direct seeding and transplants.

- **Seed:** Structure and types. Seed dormancy; causes and methods of breaking dormancy, Seed storage: Seed banks, factors affecting seed viability, genetic erosion, Seed production technology, seed testing and certification.

- **Vegetative propagation**: Air layering, cutting, selection of cutting, collecting season, treatment of cutting, rooting medium and planting of cuttings. Hardening of plants, green house, mist chamber, shed root, shade house and glass house.

15 hours

Unit2:

- **Gardening:** Definition, objectives and scope. Different types of gardening: Landscape and home gardening, parks and its components. Plant materials and design. Computer applications in landscaping. Gardening operations: soil laying, manuring, watering, management of pests and diseases and harvesting.
- **Sowing/raising of seeds and seedlings - Transplanting of seedlings:** Study of cultivation of different vegetables: cabbage, brinjal, lady's finger, onion, garlic, tomatoes, and carrots-Storage and marketing procedures**.**

15 hours

Suggested Readings

1. Bose T.K. & Mukherjee, D., 1972, Gardening in India, Oxford & IBH Publishing Co., New Delhi.
2. Sandhu, M. K., 1989, Plant Propagation, Wile Eastern Ltd., Bangalore, Madras.
3. Kumar, N., 1997, Introduction to Horticulture, Rajalakshmi Publications, Nagercoil.
4. Edmond Musser & Andres, Fundamentals of Horticulture, Mc Graw Hill Book Co., New Delhi.
5. Agrawal, P.K. 1993, Hand Book of Seed Technology, Dept. of Agriculture and Cooperation, National Seed Corporation Ltd., New Delhi.
6. Janick Jules. 1979. Horticultural Science. (3rd Ed.), W.H. Freeman and Co., San Francisco, USA.

Fifth Semester B.Sc. (Botany)

Paper Code: BOTDSET5.1 **Paper Title :**Economic Botany and Biotechnology
Teaching Hours: 4Hrs / Week **Marks:** Th-80+IA-20
Teaching Hours:60 **Credits :**3

Unit1:

- **Origin of Cultivated Plants:** Concept of centers of origin, their importance with reference to Vavilov's work.
- **Cereals:** Origin, morphology and uses of Wheat, Jowar and Rice
- **Legumes:** General account with special reference to Gram and Soybean
- **Pulses**: Origin, morphology and uses of Chick pea, Cow pea and Lentil.

15 hours

Unit2:

- **Spices:** General account with special reference to clove and black pepper (Botanical name, family, part used, morphology and uses)
- **Beverages:** Tea (morphology, processing, uses)
- **Oils and Fats:** General description with special reference to groundnut.
- **Rubber:** General description with special reference to Hevea sp.
- **Fiber Yielding Plants:** General description with special reference to Cotton (Botanical name, family, part used morphology and uses).

15 hours

Unit 3:

- **Microbial genetic manipulation**: Bacterial transformation, selection of recombinant and trasformants, genetic improvement of industrial microbes, nitrogen fixers and fermentation technology.
- **Immunology:** Hybridoma and monoclonal antibodies, ELISA and Immunodetection. Molecular diagnosis of human disease, Human gene Therapy.
- **Plant tissue culture:** Micropropagation; haploid production through androgenesis and gynogenesis; brief account of embryo & endosperm culture with their applications

15 hours

Unit4:

- **Recombinant DNA Techniques**: Biotechnology scope, tools of genetic engineering, gene cloning techniques, gel electrophoreses, Bioreactor, transgenic plants. Agro bacterium and retroviruses as natural genetic engineer. Intellectual property rights and possible ethical risks.
- **Blotting techniques:** Northern, Southern and Western Blotting, DNA Fingerprinting; Molecular DNA markers i.e. RAPD, RFLP, SNPs; DNA sequencing, PCR and Reverse Transcriptase-PCR.

15 hours

Practical

Paper Code: BOTDSEP5.1 **Paper Title :**Economic Botany and Biotechnology
Teaching Hours: 3Hrs / Week **Marks:** Th-40+IA-10
Credits :1

1. Study of economically important plants: Wheat, Jowar, Rice, Gram, Soybean, Black pepper, Clove, Tea, Cotton, Groundnut through specimens.
2. Study of economically important plants: chick pea, cowpea, Clove, Tea, Cotton, Groundnut and rubber through specimens.
3. Familiarization with basic equipments in tissue culture.
4. Study through photographs: Anther culture and somatic embryogenesis
5. Study through photographs: endosperm and embryo culture; micropropagation.
6. Study of molecular techniques: PCR and Blotting techniques.
7. Demonstration of Gel electrophoresis.
8. Demonstration and comparison of genetically modified plants.(Bt Cotton, Bt Brinjal and Bt, Tomato)

Suggested Readings

1. Kochhar, S.L. (2011). Economic Botany in the Tropics, MacMillan Publishers India Ltd., New Delhi. 4thedition.
2. Bhojwani, S.S. and Razdan, M.K., (1996). Plant Tissue Culture: Theory and Practice. Elsevier Science Amsterdam. The Netherlands.
3. Glick, B.R., Pasternak, J.J. (2003). Molecular Biotechnology- Principles and Applications of recombinant DNA. ASM Press, Washington.

Fifth Semester B.Sc. (Botany) Elective I

Paper Code: BOTDSET5.2A **Paper Title :** Cell and Molecular Biology
Teaching Hours: 4Hrs / Week **Marks:** Th-80+IA-20
Teaching Hours:60 **Credits :**3

Unit 1:

- **Techniques in Biology**
  Principles of microscopy; Light Microscopy; Phase contrast microscopy; Fluorescence microscopy; Confocal microscopy; Sample Preparation for light microscopy; Electron microscopy (EM)- Scanning EM and Scanning Transmission EM (STEM); Sample Preparation for electron microscopy; X-ray diffraction analysis.
- **Cell as a unit of Life**
  The Cell Theory; Prokaryotic and eukaryotic cells; Cell size and shape; Eukaryotic Cell components.
- **Cell Membrane and Cell Wall**
  The functions of membranes; Models of membrane structure; The fluidity of membranes; Membrane proteins and their functions; Carbohydrates in the membrane; Faces of the membranes; Selective permeability of the membranes; Cell wall.

15 Hours

Unit 2:

- **Mitochondria:** Structure, marker enzymes, composition; Semiautonomous nature; Symbiont hypothesis; Proteins synthesized within mitochondria; mitochondrial DNA.
- **Chloroplast:** Structure, marker enzymes, composition; semi autonomous nature, chloroplast DNA.
- **ER, Golgi body & Lysosomes:** Structures and roles.
- **Peroxisomes and Glyoxisomes:** Structures, composition, functions in animals and plants and biogenesis.
- **Nucleus:** Nuclear Envelope- structure of nuclear pore complex; chromatin; molecular organization, DNA packaging in eukaryotes, euchromatin and heterochromatin, nucleolus and ribosome structure (brief).

15 Hours

Unit 3:

- **Cell Cycle**
  Overview of Cell cycle, Mitosis and Meiosis; Molecular controls.
- **Genetic material**
  Gene concept: DNA: Miescher to Watson and Crick- historic perspective, Griffith's and Avery's transformation experiments, Hershey-Chase bacteriophage experiment, DNA structure, types of DNA, types of genetic material.
- **DNA replication (Prokaryotes and eukaryotes):** bidirectional replication, semi–conservative, semi discontinuous RNA priming, Ǿ (theta) mode of replication, replication of linear, ds- DNA, replicating the 5́ end of linear chromosome including replication enzymes.

15 Hours

Unit4:

- **Transcription (Prokaryotes and Eukaryotes)**
  Types of structures of RNA (mRNA, tRNA, rRNA), RNA polymerase- various types; Protein synthesis in Prokaryotes and eukaryotes, genetic code.
- **Regulation of gene expression**
  Gene concept and protein synthesis, Prokaryotes: Lac operon and Tryptophan operon; and in Eukaryotes.

15 Hours

Practical: Elective I

Paper Code: BOTDSE P5.2A **Paper Title :** Cell and Molecular Biology
Teaching Hours: 3Hrs / Week **Marks:** Th-40+IA-10
Credits :3

1. To study prokaryotic cells (bacteria), viruses, eukaryotic cells with the help of light and electron micrographs.
2. Study of the photomicrographs of cell organelles
3. To study the structure of plant cell through temporary mounts.
4. Study of mitosis and meiosis (temporary mounts and permanent slides).
5. Measure the cell size (either length or breadth/diameter) by micrometry.
6. Study the structure of nuclear pore complex by photograph (from Gerald Karp) Study of special chromosomes (polytene & lampbrush) either by slides or photographs.
7. Preparation of the Karyotype and ideogram from given photograph of somatic metaphase chromosome.
8. Isolation of DNA from plants.

Suggested Readings

1. Karp, G. 2010. Cell and Molecular Biology: Concepts and Experiments. 6th Edition. John Wiley & Sons. Inc.
2. De Robertis, E.D.P. and De Robertis, E.M.F.2006. Cell and Molecular Biology. 8th edition. Lippincott Williams and Wilkins, Philadelphia.
3. Cooper, G.M. and Hausman, R.E.2009.The Cell: A Molecular Approach. 5th edition. ASM Press & Sunderland, Washington, D.C.; Sinauer Associates, MA.
4. Becker, W. M., Kleinsmith, L.J., Hardin.J. and Bertoni,G.P.2009.TheWorld of the Cell.7th edition. Pearson Benjamin Cummings Publishing, San Francisco.

Fifth Semester B.Sc. (Botany) Elective II

Paper Code: BOTDSET 5.2B **Paper Title :** Genetics, Plant Breeding and evolution
Teaching Hours: 4Hrs / Week **Marks:** Th-80+IA-20
Teaching Hours:60 **Credits :**3

Unit1: Heredity

1. Brief life history of Mendel
2. Terminologies
3. Laws of Inheritance
4. Modified Mandelian Ratios: 2:1-lethal Genes; 1:2:1-Co-dominance,incomplete dominance; 9:7; 9:4:3; 13:3;12:3:1.
5. Chi Square
6. Pedigree Analysis
7. Cytoplasmic Inheritance: Shell Coiling in Snail, Kappa particles in Paramecium, leaf variegation in Mirabilis jalapa, Male sterility.
8. Multiple allelism
9. Pleiotropism
10. Chromosome theory of Inheritance.

15 Hours

Unit2:

- **Sex-determination and Sex-linked Inheritance**
- **Linkage and Crossing over:** Linkage: concept & history complete & incomplete linkage, bridges experiment, coupling& repulsion, recombination frequency, linkage maps based on two and three factor crosses. Crossing over: concept and significance, cytological proof of crossing over.
- **Mutations and Chromosomal Aberrations:** Types of mutations, effects of physical & chemical mutagens. Numerical chromosomal changes: Euploidy, Polyploidy and Aneuploidy; Structural chromosomal changes: Deletions, Duplications, Inversions &Translocations. **15 Hours**

Unit 3:

- **Plant Breeding:** Introduction and objectives. Breeding systems: modes of reproduction in crop plants. Important achievements and undesirable consequences of plant breeding.
- **Methods of crop improvement:** Introduction, Centres of origin and domestication of crop plants, plant genetic resources; Acclimatization; Selection methods: For self pollinated, cross pollinated and vegetatively propagated plants; Hybridization: For self, cross and vegetatively propagated plants – Procedure, advantages and limitations.
- **Crop improvement and breeding:** Role of mutations; Polyploidy; Distant hybridization and role of biotechnology in crop improvement. **15 Hours**

Unit 4:

- **Evolution;** Origin of life: Special creation theory, Theories of spontaneous generation or abiogenesis. Theory of chemical evolution and spontaneous origine of life at molecular level Oparin's hypothesis Miller's experiment, Protenoid microsphere.
- **Process of origin of life**:Structure of cosmos, primitive earth, Prebiotic synthesis, Evolution of progenote, Origine and evolution of protein RNA, DNA, Plasma membrane,
- Origin of prokaryotes and eukaryotes (endo symbiotic hypothesis)
- **Theories of organic evolution:** Lamarkism, Darwinism, Mutational and Modern concept of Evolution. **15 Hours**

Practical: Elective II

Paper Code: BOTDSEP5.2B	**Paper Title :** Genetics, Plant Breeding and evolution
Teaching Hours: 3Hrs / Week	**Marks:** Th-40+IA-10
	Credits :1

1. Mendel's laws through seed ratios. Laboratory exercises in probability and chi-square.
2. Chromosome mapping using point test cross data.
3. Pedigree analysis for dominant and recessive autosomal and sex linked traits.
4. Incomplete dominance and gene interaction through seed ratios (9:7, 9:6:1, 13:3, 15:1, 12:3:1, 9:3:4).
5. Study of aneuploidy: Down's, Klinefelter's and Turner's syndromes through photographs.
6. Photographs/Permanent Slides showing Translocation Ring, Laggards and Inversion Bridge.
7. Hybridization techniques - Emasculation, Bagging (For demonstration only).
8. Induction of polyploidy conditions in plants (For demonstration only).
9. Genetic problems.
10. Genetic problems.

Suggested Readings

1. Gardner E J, Simmons M J, Snustad D P (2008).Principles of Genetics. 8th Ed. Wiley- India.
2. Snustad, D. P. and Simmons, M.J. (2010). Principles of Genetics, John Wiley & Sons Inc., India. 5th edition.
3. Klug W S, Cummings MR, Spencer, C, Palladino, M (2011).Concepts of Genetics, 10th Ed., Benjamin Cummings
4. Griffiths, A.J.F., Wessler, S.R., Carroll, S.B., Doebley, J. (2010). Introduction to Genetic Analysis. W. H. Freemanand Co., U.S.A.10th edition.
5. Pierce B A (2011) Genetics: A Conceptual Approach, 4th Ed., Macmillan Higher Education Learning
6. Singh, B. D. (2005). Plant Breeding: Principles and Methods. Kalyani Publishers. 7th edition.
7. Chaudhari, H.K. (1984). Elementary Principles of Plant Breeding. Oxford – IBH. 2nd edition.
8. Acquaah, G. (2007).Principles of Plant Genetics & Breeding. Blackwell Publishing.

Fifth Semester B.Sc. (Botany) Skill Enhancement Course

Paper Code: BOTSEC5.3 **Paper Title :** Medicinal Botany
Teaching Hours: 2Hrs / Week **Marks:** Th-40+IA-10
Credits :2

Unit1:

- History, Scope and Importance of Medicinal Plants. Indigenous Medicinal Sciences; Definition and Scope-Ayurveda: History, origin, pancha mahabhutas, sapta dhatu and tridosha concepts, Rasayana, plants used in ayurvedic treatments, Siddha:Origin of Siddha medicinal systems, Basis of Siddha system, plants used in Siddha medicine. Unani: History, concept: Umoor-e-tabiya, tumors treatments/therapy, polyherbal formulations.
- Conservation of endangered and endemic medicinal plants. Definition: endemic and endangered medicinal plants, Red list criteria; In situ conservation: Biosphere reserves, sacredgroves, National Parks; Exsitu conservation: Botanic Gardens, Ethnomedicinal plant Gardens.

15 Hours

Unit 2:

- **Propagation of Medicinal Plants**: Objectives of the nursery, its classification, important components of a nursery, sowing, pricking, use of green house for nursery production, propagation through cuttings, layering, grafting and budding.
- **Ethnobotany and Folk medicines. Definition**; Ethnobotany in India: Methods to study ethnobotany; Applications of Ethnobotany: National interacts, Palaeo-ethnobotany. folk medicines of ethnobotany, ethnomedicine, ethnoecology, ethnic communities of India. Application of natural products to certain diseases- Jaundice, cardiac, infertility, diabetics, Blood pressure andskindiseases. **15 Hours**

Suggested Readings

1. Trivedi P C, 2006. Medicinal Plants: Ethnobotanical Approach, Agrobios, India.

2. Purohit and Vyas, 2008. Medicinal Plant Cultivation: A Scientific Approach, 2nd edn. Agrobios, India.

Sixth Semester B.Sc. (Botany)

Paper Code: BOTDSE6.1 **Paper Title :** Analytical Techniques in Plants
Teaching Hours: 4Hrs / Week **Marks:** Th-80+IA-20
Credits :3

Unit1:

- **Imaging and related techniques**

  Principles of microscopy; Light microscopy; Fluorescence microscopy; Confocal microscopy; Use of fluorochromes: (a) Flow cytometry (FACS); (b) Applications of fluorescence microscopy: Chromosome banding, FISH, chromosome painting; Transmission and Scanning electron microscopy – sample preparation for electron microscopy, cryofixation, negative staining, shadow casting, freeze fracture, freez eetching.

15 Hours

Unit 2:

- **Cell fractionation**

  Centrifugation: Differential and density gradient centrifugation, sucrose density gradient, $CsCl_2$ gradient, analytical centrifugation, ultracentrifugation, marker enzymes.
- **Radioisotopes**

  Use in biological research, auto-radiography, pulse chase experiment.
- **Spectrophotometry**

  Principle and its application in biological research.

15 Hours

Unit3:

- **Chromatography**

  Principle; Paper chromatography; Column chromatography, TLC, GLC, HPLC, Ion- exchange chromatography; Molecular sieve chromatography; Affinity chromatography.
- **Characterization of proteins and nucleic acids**

  Mass spectrometry; X-ray diffraction; X-ray crystallography; Characterization of proteins and nucleic acids; Electrophoresis: AGE, PAGE, SDS-PAGE

15 Hours

Unit4:

- **Biostatistics**

  Statistics, data, population, samples, parameters; Representation of Data: Tabular, Graphical; Measures of central tendency: Arithmetic mean, mode, median; Measures of dispersion: Range, mean deviation, variation, standard deviation; Chi-square test for goodness of fit.

15 Hours

Practical

Paper Code: BOTDSEP 6.1 **Paper Title :** Analytical Techniques in Plants
Teaching Hours: 3Hrs / Week **Marks:** Th-80+IA-20
Credits :3

1. Study of Blotting techniques: Southern, Northern and Western, DNA fingerprinting, DNA sequencing, PCR through photographs.

2. To separate Amino acids by paper chromatography.

3. To separate chlorophyll pigments by paper chromatography.

4. To estimate protein concentration through Lowry's methods.

5. Study of different microscopic techniques using photographs/micrographs (freeze fracture, freeze etching, negative staining, positive staining, fluorescence and FISH).

6. Preparation of permanent slides (double staining).

7. Calculation of central tendencies (Mean, Mode and Median)

8. Calculation of standard deviation.

9. Calculation of ANOVA (Analysis of variance- one way ANOVA)

Suggested Readings

1. Plummer, D.T. (1996). An Introduction to Practical Biochemistry. Tata Mc Graw-Hill Publishing Co. Ltd. New Delhi. 3rd edition.

2. Ruzin, S.E. (1999). Plant Microtechnique and Microscopy, Oxford University Press, New York. U.S.A.

3. Ausubel, F., Brent, R., Kingston, R. E., Moore, D.D., Seidman, J.G., Smith, J.A., Struhl, K. (1995). Short Protocols in Molecular Biology. John Wiley & Sons. 3rd edition.
4. Zar, J.H. (2012). Biostatistical Analysis. Pearson Publication. U.S.A. 4th edition.

Sixth Semester B.Sc. (Botany) Elective III

Paper Code: BOTDSET6.2A **Paper Title :**Research Methodology
Teaching Hours: 4Hrs / Week **Marks:** Th-80+IA-20
Credits :3

Unit1:

- **Basic concepts of research**
  Research-definition and types of research (Descriptive vs analytical; applied vs fundamental; quantitative vs qualitative; conceptual vs empirical). Research methods vs methodology. Literature-review and its consolidation; Library research; field research; laboratory research.

15 hours

Unit2:

- **General laboratory practices**
  Common calculations in botany laboratories. Understanding the details on the label of reagent bottles. Molarity and normality of common acids and bases. Preparation of solutions. Dilutions. Percentage solutions. Molar, molal and normal solutions. Technique of handling micropipettes; Knowledge about common toxic chemicals and safety measures in their handling.
- **Data collection and documentation of observations**
  Maintaining a laboratory record; Tabulation and generation of graphs. Imaging of tissue specimens and application of scale bars. The art of field photography.

15 hours

Unit3:

- **Overview of Biological Problems**
  History; Key biology research areas, Model organisms in biology (A Brief overview): Genetics, Physiology, Biochemistry, Molecular Biology, Cell Biology, Genomics, Proteomics-Transcriptional regulatory network.
- **Methods to study plant cell/tissue structure**
  Whole mounts, peel mounts, squash preparations, clearing, maceration and sectioning; Tissue preparation: living vs fixed, physical vs chemical fixation, coagulating fixatives, non- coagulant fixatives; tissue dehydration using graded solvent series; Paraffin and plastic infiltration; Preparation of thin and ultrathin sections.

15 hours

Unit 4:

- **Plant microtechniques**
  Staining procedures, classification and chemistry of stains.Staining equipment. Reactive dyes and fluorochromes (including genetically engineered protein labeling with GFP and other tags). Cytogenetic techniques with squashed plant materials.
- **The art of scientific writing and its presentation**
  Numbers, units, abbreviations and nomenclature used in scientific writing. Writingre ferences. Powerpoint presentation. Poster presentation. Scientific writing and ethics, Introduction to copyright-academic misconduct/plagiarism.

15 hours

Practical: Elective III

Paper Code: BOTDSE P 6.2A **Paper Title :**Research Methodology
Teaching Hours: 3Hrs / Week **Marks:** Th-40+IA-10
Credits :1

1. Basic introduction to laboratory safety.
2. Research techniques.
   a. Microscopic techniques.
   b. Chromatography technique.
   c. Separation technique.
3. Experimental design.
4. Sampling techniques.
5. Introduction to research methodology.
6. Introduction to research ethics.
7. Introduction to Intellectual property rights.
8. Skill of writing Scientific/research paper.
9. Research paper communication.
10. Search engines and research databases.
11. Academic misconduct and plagiarism

Suggested Readings

1. Dawson, C. (2002). Practical research methods. UBS Publishers, New Delhi.

2. Stapleton, P., Yondeowei, A., Mukanyange, J., Houten, H. (1995). Scientific writing for agricultural research scientists – a training reference manual. West Africa Rice Development Association, Hong Kong.

3. Ruzin, S.E. (1999). Plant microtechnique and microscopy. Oxford University Press, New York, U.S.A.

Sixth Semester B.Sc. (Botany) Elective IV

Paper Code: BOTDSET6.2B **Paper Title : Biofertilizers and Organic Farming**
Teaching Hours: 4Hrs / Week **Marks:** Th-80+IA-20
Teaching Hours:60 **Credits :**3

Unit 1:

- **Manures and Biofertilizers:** Need for fertilizers, manures. Manure composition. Manures for crop productivity.

Differences between fertilizers and biofertilizers: pH changes and water contamination.

- **Organic Farming:** Organic farming – Green manuring and organic fertilizers, Recycling of bio-degradable

municipal, agricultural and industrial wastes, Biocompost making- types, method of vermicomposting, Panchakavya. Biological pest control (neem)

15 Hours

Unit 2:

- **Bacterial Biofertilizers:** General account on the microbes used as bio fertilizer. *Azotobacter*: classification,

characteristics– crop response to *Azotobacter* inoculum, maintenance and mass multiplication. *Rhizobium* – isolation, identification, mass multiplication, carrier based inoculants, Actinorrhizal symbiosis.

15 Hours

Unit 3:

- **Algal Biofertilizers;** *Azospirillum*: isolation and mass multiplication – carrier based inoculant, associative effect of different microorganisms. *Azolla* and *Anabaena azollae* association, nitrogen fixation, factors affecting growth, *Azolla* in rice cultivation.

15 Hours

Unit 4:

- **Fungal Biofertilizers:** Mycorrhizal association, types of mycorrhizal association, taxonomy, occurrence and

distribution, phosphorus nutrition, growth and yield, colonization of VAM – isolation and inoculum production of VAM, and its influence on growth and yield of crop plants.

15 Hours

Practical: Elective IV

Paper Code: BOTDSE P 6.2B **Paper Title : Biofertilizers and Organic Farming**
Teaching Hours: 4Hrs / Week **Marks:** Th-40+IA-10
Credits :1

PRACTICAL

1. Isolation and culture of *Rhizobium* and Algae.
2. Anatomy of *Azolla* leaf and identification of *Anabaena azollae*.
3. Mass cultivation of *Azolla*.
4. Isolation and culture of VAM.
5. Compost preparation- green manure, vermicompost.
6. Estimation of mineral content of biomass from vermicompost manure(pH, Nitrate,Nitrite, sulphate, Calcium, magnesium, Ammonia, Silica)
7. Isolation of cyanobacteria from soil.
8. Isolation of Fungi from soil
9. Isolation of Bacteria from soil

Suggested Readings

1. Dubey R.C. 2005. A Text book of Biotechnology. S.Chand & Co. New Delhi.
2. Kumaresan V. 2005. Biotechnology. Saras Publications. New Delhi.
3. John Jothi Prakash E. 2004. Outlines of Plant Biotechnology. Emkay Publication. New Delhi.
4. Sathe T.V. 2004. Vermiculture and Organic Farming. Daya Publishers. New Delhi.
5. Subha Rao N.S. 2000. Soil Microbiology, Oxford & IBH Publishers. New Delhi.
6. Vayas S.C, Vayas S. and Modi H.A. 1998.Bio-fertilizers and organic Farming Akta Prakashan. Nadiad.

Sixth Semester B.Sc. (Botany) Skill Enhancement Course

Paper Code: BOTSEC6.3 **Paper Title :** Ethnobotany
Teaching Hours: 2 Hrs / Week **Marks:** Th-40+IA-10
Teaching Hours:30 **Credits :**2

Unit1:

- **Introduction to Ethnobotany:** Introduction, concept, scope and objectives; Ethnobotany as an interdisciplinary science. The relevance of ethnobotany in the present context; Major and minor ethnic groups or Tribals of India, and their life styles. Plants used by the tribals: a)Food plants b)intoxicants and beverages c)Resins and oils and miscellaneous uses.
- **Ethnobotany and legal aspects**

Ethnobotany as a tool to protect interests of ethnic groups. Sharing of wealth concept with few examples from India. Biopiracy, Intellectual Property Rights and Traditional Knowledge.

15 Hours

Unit 2:

- **Methodology of Ethnobotanical studies**

Field work b) Herbarium c) Ancient Literature d) Archaeological findings e) Temples and sacred places.

- **Role of ethnobotany in modern Medicine**

Medico-ethnobotanical sources in India; Significance of the following plants in ethno botanical practices (along with their habitat and morphology) a) *Azadiractha indica* b) *Ocimum sanctum* c) *Vitex negundo*. d) *Gloriosa superba*e) *Tribulus terrestris* f) *Pongamia pinnata* g) *Cassia auriculata* h) *Indigofera tinctoria*. Role of ethnobotany in modern medicine with special example *Rauvolfia sepentina, Trichopus zeylanicus, Artemisia, Withania*.

Role of ethnic groups in conservation of plant genetic resources. Endangered taxa and forest management (participatory forest management). **15 Hours**

Suggested Readings

1) S.K. Jain, Manual of Ethnobotany, Scientific Publishers, Jodhpur, 1995.
2) S. K. Jain (ed.) Glimpses of Indian. Ethnobotny, Oxfordand IBH, New Delhi–1981
3) Lone et al,.Palaeoethnobotany
4) S. K. Jain (ed.)1989.Methods and approaches in ethnobotany. Society of ethnobotanists, Lucknow, India.
5) S. K. Jain, 1990. Contributions of Indian ethnobotny. Scientific publishers, Jodhpur.
6) Colton C.M. 1997. Ethnobotany – Principles and applications. John Wiley and sons – Chichester
7) Rama Ro, N and A.N. Henry (1996). The Ethnobotany of Eastern Ghats in Andhra Pradesh, India. Botanical Survey of India. Howrah. 8) Rajiv K. Sinha – Ethnobotany The Renaissance of Traditional Herbal Medicine–INA–SHREE Publishers, Jaipur-19969)

Question Paper pattern
First Semester B.Sc. Degree Examination, December 2020
(CBCS Scheme-2020-21: Regular)
BOTANY
BOTDSC T11: Biodiversity (Microbes, Algae, Fungi and Archegoniate)

Time: 3 hours Max. Marks: 80

1.		**Answer any 10 sub question**	**10 x 2 = 20**
	i.		
	ii.		
	iii.		
	iv.		
	v.		
	vi.		
	vii.		
	viii.		
	ix.		
	x.		
	xi.		
	xii.		
2.			
	(a)	5 marks	
	(b)		10 marks
		OR	
3.	(a)	5 marks	
	(b)		10 marks
4	(a)	5 marks	
	(b)		10 marks
		OR	
5	(a)	5 marks	
	(b)		10 marks
6.	(a)	5 marks	
	(b)		10 marks
		OR	
7.	(a)		

		5 marks
	(b)	10 marks
8.	(a)	5 marks
	(b)	10 marks
	OR	
9.	(a)	5 marks
	(b)	10 marks

****

Instruction to set the question paper.

1. Question number 1 has 12 sub questions consisting of 3 questions from each unit. Each question carries two marks. Student has to answer any ten questions.
2. Question number 2 and 3 are from unit I.
3. Question number 4 and 5 are from unit II.
4. Question number 6 and 7 are from unit III
5. Question number 8 and 9 are from unit IV.
6. Student has to answer either question number 2 or 3, 4 or 5, 6 or 7 and 8 or 9.

Note: In case student answered both the questions from the same unit in full or part, highest marks from any one choice has to be considered.

Question paper pattern for skill enhancement course, SEC

Third Semester B.Sc. Degree Examination, December 2021
(CBCS Scheme-2020-21: Regular)
Botany
BOTSEC T32: Skill Enhancement Course

Time: 2 hours Max. Marks: 40

1.		**Answer any 5 sub question**	**5 x 2 = 10**
	i.		
	ii.		
	iii.		
	iv.		
	v.		
	vi.		
2.			
	(a)	5 marks	
	(b)		10 marks
		OR	
3.	(a)	5 marks	
	(b)		10 marks
4	(a)	5 marks	
	(b)		10 marks
		OR	
5	(a)	5 marks	
	(b)		10 marks

Instruction to set the question paper.

7. Question number 1 has 6 sub questions consisting of 3 questions from each unit. Each question carries two marks. Student has to answer any five questions.
8. Question number 2 and 3 is from unit I.
9. Question number 4 and 5 is from unit II.
10. Student has to answer either question number 2 or 3, 4 or 5.

Note: In case student answered both the question from the same unit in full or part, highest marks from any one choice has to be considered.

ರಾಣಿ ಚನ್ನಮ್ಮ ವಿಶ್ವವಿದ್ಯಾಲಯ

RANI CHANNAMMA UNIVERSITY

ವಿದ್ಯಾಸಂಗಮ, ರಾಷ್ಟ್ರೀಯ ಹೆದ್ದಾರಿ–೦೪, ಭೂತರಾಮನಹಟ್ಟಿ, ಬೆಳಗಾವಿ –೫೯೧೧೫೬

E-mail: rcukannada@gmail.com Website: WWW.rcub.ac.in

ಶಾಸ್ತ್ರೀಯ ಕನ್ನಡ ಭಾಷಾ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ

ಬಿ.ಎಸ್ಸಿ ತರಗತಿಗೆ

ಮೂರನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.

ಬೇಸಿಕ್ ಕನ್ನಡ (Ability Enhancement Compulsory Course) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

(ಒಟ್ಟು ಪಾಠದ ಅವಧಿ ೮೦ ಗಂಟೆಗಳು. ವಾರಕ್ಕೆ ೦೪ ಗಂಟೆಗಳ ಪಾಠ ಒಟ್ಟು ಅಂಕಗಳು ೧೦೦. ಆಂತರಿಕ ಗುಣಾಂಕಕ್ಕೆ ೨೦ ಅಂಕಗಳು ಹಾಗೂ ಥಿಯರಿ ಪರೀಕ್ಷೆಗೆ ೮೦ ಅಂಕಗಳು.)

ಪದ್ಯ ಭಾಗ

೧. ಪದ್ಯಂ ಸಮಸ್ತ ಜನತಾ ಹೃದ್ಯಂ –ಶ್ರೀವಿಜಯ

೨. ಭೀಷ್ಮ ವಚನ –ರನ್ನ

೩. ಕನ್ನಡಿಗರ ತಾಯಿ –ಎಂ. ಗೋವಿಂದ ಪೈ

೪. ಪ್ರಶ್ನೆಗೆ ಉತ್ತರ –ಕೆ. ಎಸ್. ನರಸಿಂಹಸ್ವಾಮಿ

೫. ಚೈತ್ರ –ಜಿ. ಎಸ್. ಶಿವರುದ್ರಪ್ಪ

೬. ಧಾರವಾಡದಲ್ಲಿ ಮಳೆಗಾಲ –ಚನ್ನವೀರ ಕಣವಿ

೭. ನಿಮ್ಮೊಡನಿದ್ದು ನಿಮ್ಮಂತಾಗದೆ –ಕೆ. ಎಸ್. ನಿಸಾರ ಅಹಮದ್

೮. ಕತ್ತೆ ಮತ್ತು ಧರ್ಮ –ಡಾ. ಸಿದ್ದಲಿಂಗಯ್ಯ

ಗದ್ಯ ಭಾಗ

೯. ನಮ್ಮ ಮನೆಯ ದೀಪ –ಹಾ. ಮಾ. ನಾಯಕ

೧೦. ಕಣ್ಣಿನ ಜಗತ್ತು –ಅ. ರಾ. ಮಿತ್ರ

೧೧. ಬೇಲೂರಿನ ಹೆಣ್ಣುಗಳು –ಹಿರೇಮಲ್ಲೂರು ಈಶ್ವರನ್

೧೨. ನನ್ನ ಅಂಹಕಾರ –ರಾ. ಯ. ಧಾರವಾಡಕರ

೧೩. ಪರರ ಚಿಂತೆ ನಮಗೇಕಯ್ಯ –ವೀರೇಂದ್ರ ಸಿಂಪಿ

೧೪. ಇಂಗ್ಲೆಂಡಿನಲ್ಲಿ ಭಾರತೀಯರು – ಗಿರಡ್ಡಿ ಗೋವಿಂದರಾಜು

೧೫. ಹೃದಯವಂತಿಕೆಯ ಸಮಸ್ಯೆಗಳು –ವಿ. ಕೃ. ಗೋಕಾಕ

೧೬. ವಿನೋದ ಎಲ್ಲಿದೇ ? –ಪಾಟೀಲ ಪುಟ್ಟಪ್ಪ

(ರಾಣಿ ಚನ್ನಮ್ಮ ವಿಶ್ವವಿದ್ಯಾಲಯದ ಪ್ರಸಾರಾಂಗವು **'ಸಾಹಿತ್ಯ ಕೌಮುದಿ ೩'** ಎನ್ನುವ ಪಠ್ಯವನ್ನು ಪ್ರಕಟಿಸಿರುತ್ತದೆ. ಪಠ್ಯಭಾಗದ ಕೊನೆಯಲ್ಲಿ ಮಾದರಿ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ನೀಡಲಾಗಿದೆ.)

ರಾಣಿ ಚನ್ನಮ್ಮ ವಿಶ್ವವಿದ್ಯಾಲಯ

RANI CHANNAMMA UNIVERSITY

ವಿದ್ಯಾಸಂಗಮ, ರಾಷ್ಟ್ರೀಯ ಹೆದ್ದಾರಿ–೦೪, ಭೂತರಾಮನಹಟ್ಟಿ, ಬೆಳಗಾವಿ –೫೯೧೧೫೬

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ಶಾಸ್ತ್ರೀಯ ಕನ್ನಡ ಭಾಷಾ ಅಧ್ಯಯನ ಸಂಸ್ಥೆ

ಬಿ.ಎಸ್ಸಿ ತರಗತಿಗೆ

ನಾಲ್ಕನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.

ಬೇಸಿಕ್ ಕನ್ನಡ (Ability Enhancement Compulsory Course) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

(ಒಟ್ಟು ಪಾಠದ ಅವಧಿ ೮೦ ಗಂಟೆಗಳು. ವಾರಕ್ಕೆ ೦೪ ಗಂಟೆಗಳ ಪಾಠ ಒಟ್ಟು ಅಂಕಗಳು ೧೦೦. ಆಂತರಿಕ ಗುಣಾಂಕಕ್ಕೆ ೨೦ ಅಂಕಗಳು ಹಾಗೂ ಥಿಯರಿ ಪರೀಕ್ಷೆಗೆ ೮೦ ಅಂಕಗಳು.)

ಪದ್ಯ ಭಾಗ

೧. ಪಸಾಯದಾನಂಗೊಟ್ಟಳ್ – ಜನ್ನ

೨. ಕೈವಲ್ಯ ಪದಗಳು – ಮುಪ್ಪಿನ ಷಡಕ್ಷರಿ

೩. ಹುಬ್ಬಳ್ಳಿಯಾಂವಾ – ದ. ರಾ. ಬೇಂದ್ರೆ

೪. ಪ್ರೀತಿ ಇಲ್ಲದ ಮೇಲೆ – ಡಾ. ಜಿ.ಎಸ್. ಶಿವರುದ್ರಪ್ಪ

೫. ವಚನಗಳು – ಕುಮಾರಕಕ್ಕಯ್ಯ ಪೋಳ

೬. ಶ್ರಾವಣದ ಲಾವಣ್ಯ – ಚೆನ್ನವೀರ ಕಣವಿ

೭. ನೋಡಬಾರದು ಚೀಲದೊಳಗನು – ವೈದೇಹಿ

೮. ಒಂದು ಪತ್ರ – ಡಾ. ಸರಜೂ ಕಾಟ್ಕರ

ಗದ್ಯ ಭಾಗ

೯. ಮಹಾತ್ಮಾ ಜ್ಯೋತಿರಾವ ಫುಲೆ – ಡಾ. ಜೆ.ಪಿ. ದೊಡಮನಿ

೧೦. ಕೆಟ್ಟ ಕನಸು – ಗುರುದೇವಿ ಹುಲೆಪ್ಪನವರಮಠ

ನಾಟಕ

೧೧. ಶ್ಮಶಾನ ಕುರುಕ್ಷೇತ್ರಂ – ಕುವೆಂಪು

(ರಾಣಿ ಚನ್ನಮ್ಮ ವಿಶ್ವವಿದ್ಯಾಲಯದ ಪ್ರಸಾರಾಂಗವು **'ಸಾಹಿತ್ಯ ಕೌಮುದಿ ೪'** ಎನ್ನುವ ಪಠ್ಯವನ್ನು ಪ್ರಕಟಿಸಿರುತ್ತದೆ. ಪಠ್ಯಭಾಗದ ಕೊನೆಯಲ್ಲಿ ಮಾದರಿ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ನೀಡಲಾಗಿದೆ.)

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF SCIENCE

CHEMISTRY

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

CHOICE BASED CREDIT SYSTEM [CBCS]
B.Sc. Program with Optional Subject: CHEMISTRY

(With effect from the academic year 2020-21 onwards)								
Sem	Part	Paper Code	Title of the Paper	Hours / Week	Marks			Subject Credits
					IA	Exam	Total	
I	Part – 1 DSC	CHEDSCT 1.1	**Chemistry-1**	4	20	80	100	3
		CHEDSCP 1.1	**Practicals-1**	3	10	40	50	1
		Total: Hours / Credits		7			150	4
II	Part – 1 DSC	CHEDSCT 2.1	**Chemistry-2**	4	20	80	100	3
		CHEDSCP 2.1	**Practicals-2**	3	10	40	50	1
		Total: Hours / Credits		7			150	4

(With effect from the academic year 2021-22 onwards)								
Sem	Part	Paper Code	Title of the Paper	Hours/ Week	Marks			Subject Credits
					IA	Exam	Total	
III	Part – 1 DSC	CHEDSCT3.1	**Chemistry-3**	4	20	80	100	3
		CHEDSCP3.1	**Practicals-3**	3	10	40	50	1
	Part – 2 SEC	CHESECT3.2	Chemistry of Cosmetics & Perfumes	2	10	40	50	2
		Total: Hours / Credits		9			200	6
IV	Part – 1 DSC	CHEDSCT4.1	**Chemistry-4**	4	20	80	100	3
		CHEDSCP4.1	**Practicals-4**	3	10	40	50	1
	Part – 2 SEC	CHESECT4.2	Fuel Chemistry	2	10	40	50	2
		Total: Hours / Credits		9			200	6

(With effect from the academic year 2022-23 onwards)								
Sem	Part	Paper Code	Title of Paper	Hours/ Week	Marks			Subject Credits
					IA	Exam	Total	
V	Part – 1 DSE	CHEDSET 5.1	Chemistry-5	4	20	80	100	3
		CHEDSEP 5.1	Practicals-5	3	10	40	50	1
		CHEDSET 5.2A **(Elective I)**	Chemistry-5A	4	20	80	100	3
		CHEDSEP 5.2A **(Elective I)**	Practicals-5A	3	10	40	50	1
		CHEDSET 5.2B **(Elective II)**	Chemistry-5B	4	20	80	100	3
		CHEDSEP 5.2B **(Elective II)**	Practicals-5B	3	10	40	50	1
	Part – 2 SEC	CHESECT5.3	Basic Analytical Chemistry	3	10	40	50	2
		Total: Hours / Credits		17			350	10
Note: Students have to choose either Elective-I or Elective-II								
VI	Part – 1 DSE	CHEDSET 6.1	Chemistry-6	4	20	80	100	3
		CHEDSEP 6.1	Practicals-6	3	10	40	50	1
		CHEDSET 6.2A **(Elective III)**	Chemistry-6A	4	20	80	100	3
		CHEDSEP 6.2A **(Elective III)**	Practicals-6A	3	10	40	50	1
		CHEDSET 6.2B **(Elective IV)**	Chemistry-6B	4	20	80	100	3
		CHEDSEP 6.2B **(Elective IV)**	Practicals-6B	3	10	40	50	1
	Part – 2 SEC	CHESECT 6.3	Pharmaceutical Chemistry	3	10	40	50	2
		Total: Hours / Credits		17			350	10
Note: Students have to choose either Elective-III or Elective-IV								

T: Theory, P: Practical, CC/EA: Co-curricular/Extension Activities. AECC: Ability Enhancement Compulsory Course, DSC: Discipline Specific Course. DSE: Discipline Specific Elective, SEC: Skill Enhancement Course).

Note: Duration of examinations is 03 h for 80 Marks theory and 02 h for 40 marks theory. For practicals, duration of examination is 03 h.

Schema of Evaluation for Practical Examination

	Particulars	Marks Allotted
1	**Experimental preparation involving the following ***	**30**
2	**Journal (record) assessment**	**05**
3	**Oral performance (Viva-voce)**	**05**
	Total	**40**
*	Brief description & tabulation	04
	Basic reactions involved & Mechanism, if any	04
	Preparation of required solutions and Experimental set-up	04
	Record of observation and performance of experiment	10
	Calculation including drawing graph	06
	Accuracy of result with unit	02

Question Paper pattern

First Semester B.Sc. Degree Examination, December 2020

(CBCS Scheme-2020-21: Regular)

Chemistry

CHEDSCT 1.1: Chemistry-1

Time: 3 Hours | Max. Marks: 80

Q. No. I. Answer any TEN of the following | 2X10= 20 Marks

1)
2)
3)
4)
5)
6)
7)
8)
9)
10)
11)
12)

Q. NO. II. Answer the following questions | 5X3=15 Marks

a)
b)
c)

OR

d)

Q. No. III. Answer the following questions | 5x3= 15 Marks

a)
b)
c)

OR

d)

Q. No. IV. Answer the following questions | 5x3=15 Marks

a)
b)
c)

OR

d)

Q. No. V. Answer the following questions | 5x3=15 Marks

a)
b)
c)

OR

d)

Question Paper pattern

First Semester B.Sc. Degree Examination, December 2020

(CBCS Scheme-2020-21: Regular)

Chemistry

CHESECT 3.2: Title of the Paper

Time: 3 Hours Max. Marks: 40

Q. No. I. Answer any **FIVE** of the following 2X5= 20 Marks

1)

2)

3)

4)

5)

6)

Q. NO. II Answer the following questions 5X3=15 Marks

a)

b)

c)

OR

d)

Q. No. III. Answer the following questions 5x3= 15 Marks

a)

b)

c)

OR

d)

Instruction to set the DSC/DSE question paper.

- Question number 1 has 12 sub questions consisting of 3 questions from each unit. Each question carries two marks. Student has to answer any ten questions.
- Question number II are from unit I.
- Question number III are from unit II.
- Question number IV are from unit III
- Question number V are from unit IV.

Instruction to set the SEC question paper.

- Question number 1 has 6 sub questions consisting of 3 questions from each unit. Each question carries two marks. Student has to answer any five questions.
- Question number I is from unit I.
- Question number II is from unit II.

First Semester B.Sc. (Chemistry) as per CBCS

Paper Code: CHEDSCT 1.1 **Paper Title:** Chemistry-1
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

UNIT-I: Atomic Structure (15 Hours)

Review of Bohr's theory and its limitations, dual behaviour of matter and radiation, de Broglie's relation, Heisenberg Uncertainty principle. Hydrogen atom spectra. Need of a new approach to atomic structure -Introduction to Quantum mechanics: Time independent Schrodinger equation and meaning of various terms in it (no derivation). Significance of ψ and ψ^2. Significance of quantum numbers, orbital angular momentum and quantum numbers $m_l$and m_s. Shapes of *s*, *p* and *d* atomic orbitals, nodal planes. Discovery of spin, spin quantum number (*s*) and magnetic spin quantum number (m_s).

Rules for filling electrons in various orbitals, Electronic configurations of the atoms. Stability of half-filled and completely filled orbitals, concept of exchange energy. Relative energies of atomic orbitals, Anomalous electronic configurations.

UNIT-II: Chemical Bonding and Molecular Structure (15 Hours)

Ionic Bonding: Ionic bonding, lattice energy, Statement of Born-Landé equation for calculation of lattice energy, Born-Haber cycle and its applications, polarizing power and polarizability. Fajan's rules, ionic character in covalent compounds, bond moment, dipole moment and percentage ionic character.

Covalent bonding: *VB Approach:* Shapes of some inorganic molecules and ions on the basis of VSEPR and hybridization with suitable examples of linear, trigonal planar, square planar, tetrahedral, trigonal bipyramidal and octahedral arrangements.*MO Approach*: Rules for the LCAO method, bonding and antibonding MOs and their characteristics for *s-s*, *s-p* and *p-p* combinations of atomic orbitals, nonbonding combination of orbitals, MO treatment of homonuclear diatomic molecules of 1st and 2nd periods (including idea of *s-p* mixing) and heteronuclear diatomic molecules such as CO, NO and NO^+. Comparison of VB and MO approaches.

UNIT-III: Fundamentals of Organic Chemistry and Alkenes (15Hours)

Fundamentals of Organic Chemistry: Physical Effects, Electronic Displacements: Inductive Effect, Electromeric Effect, Resonance and Hyperconjugation. Cleavage of Bonds: Homolysis and Heterolysis.

Structure, shape and reactivity of organic molecules: Nucleophiles and electrophiles. Reactive Intermediates: Carbocations, Carbanions and free radicals.

Strength of organic acids and bases: Comparative study with emphasis on factors affecting pK values. Aromaticity: Benzenoids and Hückel's rule.

Alkenes: Methods of preparation of alkenes by (i) dehydration of alcohols (ii) dehydro halogenation. Saytezaff's elimination (Formation of highly substituted alkene, 2-butene), Hofmann orientation (Formation of least substituted alkene, 1-pentene).

Chemical reactions of alkenes- Peroxide effect and its mechanism, hydroboration, oxidation, oxy-mercuration–reduction and mechanism, ozonolysis with respect to2-butene and 2-methyl-2-butene, oxidation with $KMnO_4$.

Dienes: Classification, Nomenclature and Preparation of 1,3 butadiene; Reactions of 1,2 and 1,4 addition reactions (addition of halogens and halogen acids), Diel's-Alder reaction, polymerization of 1,3 butadiene.

Alkynes: Acidity of Alkynes, reactions of acetylene –metal ammonia reduction, oxidation and polymerization

UNIT-IV: Purification of organic compounds and Stereochemistry (15 Hours)

Purification of organic compounds:

Methods of purification of solids: Crystallization, fractional crystallization and sublimation.

Method of purification of liquids: Distillation, fractional distillation, distillation under reduced pressure, steam distillation.

Chromatography: General principles, types, brief outline of thin layer chromatography, paper chromatography and column chromatography, solvent extraction.

Criteria of purity: Melting point and boiling point.

Stereochemistry:

Cycloalkanes: Baeyer's strain theory, calculation of angle strain, Sachse Mohr theory of strain less rings. Chair and boat forms of cyclohexane. Axial and equatorial bonds.

Conformational isomerism: Basic concept of conformational analysis with reference to ethane and butane.

Geometrical isomerism: definition, E and Z notation for 2-butene and butenedioic acid, rules for assigning notations. Determination of configuration of butenedioic acid by anhydride formation, dipole moment measurement, melting point and stability.

Optical isomerism: Chirality, van't Hoff-Lebel hypothesis, optical activity, D and L configurations, R and S notations, sequence and priority rules, enantiomers, distereoisomers, epimers, anomers, racemic and meso (with suitable examples like lactic and tartaric acids.), racemisation, resolution of racemic mixture by chemical method, asymmetric synthesis, Walden inversion.

References:

1. Lee, J.D. *Concise Inorganic Chemistry* ELBS, 1991.
2. Cotton, F.A., Wilkinson, G. & Gaus, P.L. *Basic Inorganic Chemistry*, 3rd ed., Wiley.
3. Douglas, B.E., McDaniel, D.H. & Alexander, J.J. *Concepts and Models in Inorganic Chemistry*, John Wiley & Sons.
4. Huheey, J.E., Keiter, E.A., Keiter, R.L. & Medhi, O.K. *Inorganic Chemistry: Principles of Structure and Reactivity*, Pearson Education India, 2006.
5. Graham Solomon, T.W., Fryhle, C.B. & Dnyder, S.A. *Organic Chemistry*, John Wiley & Sons (2014).
6. McMurry, J.E. *Fundamentals of Organic Chemistry*, 7th Ed. Cengage Learning India Edition, 2013.
7. Sykes, P. *A Guidebook to Mechanism in Organic Chemistry*, Orient Longman, New Delhi (1988).
8. Eliel, E.L. *Stereochemistry of Carbon Compounds*, Tata McGraw Hill education, 2000.
9. Finar, I.L. *Organic Chemistry* (Vol. I & II), E.L.B.S.
10. Morrison, R.T. & Boyd, R.N. *Organic Chemistry*, Pearson, 2010.
11. Bahl, A. & Bahl, B.S. *Advanced Organic Chemistry*, S. Chand, 2010.

First Semester B.Sc. (Chemistry)

Paper Code: CHEDSCP 1.1 **Paper Title:** Practicals-1
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours: 45 h **Credits :**1

Section A: Inorganic Chemistry - Volumetric Analysis **(40 Marks)**

1. Estimation of sodium carbonate and sodium hydrogen carbonate present in a mixture.
2. Estimation of oxalic acid by titrating it with $KMnO_4$.
3. Estimation of water of crystallization in Mohr's salt by titrating with $KMnO_4$.
4. Estimation of Fe (II) ions by titrating it with $K_2Cr_2O_7$ using internal indicator.
5. Estimation of Cu (II) ions iodometrically using $Na_2S_2O_3$ (demo only).
6. Determination of the percentage loss in weight of I) Zinc carbonate II) mixture of barium sulphate and ammonium chloride

Section B: Organic Chemistry Estimations:

7. Estimation of Phenol.
8. Estimation of Aniline.
9. Estimation of Amide.
10. Estimation of Glucose.

Reference Books:

1. Svehla, G. *Vogel's Qualitative Inorganic Analysis*, Pearson Education, 2012.
2. Mendham, J. *Vogel's Quantitative Chemical Analysis*, Pearson, 2009.
3. Vogel, A.I., Tatchell, A.R., Furnis, B.S., Hannaford, A.J. & Smith, P.W.G., *Textbook of Practical Organic Chemistry*, Prentice-Hall, 5th edition, 1996.
4. Mann, F.G. & Saunders, B.C. *Practical Organic Chemistry* Orient-Longman, 1960.

Second Semester B.Sc. (Chemistry)

Paper Code: CHEDSCT 2.1 **Paper Title:** Chemistry-2
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours: 60 **Credits:** 3

UNIT-I Chemical Energetics and Ionic Equilibria: I (15Hours)

Chemical Energetics: Review of thermodynamics and the Laws of Thermodynamics. Important principles and definitions of thermochemistry. Concept of standard state and standard enthalpies of formations, integral and differential enthalpies of solution and dilution. Calculation of bond energy, bond dissociation energy and resonance energy from thermochemical data. Variation of enthalpy of a reaction with temperature – Kirchhoff's equation. Statement of Third Law of thermodynamics and calculation of absolute entropies of substances. Joule-Thomson effect, derivation of Joule Thomson coefficient for an ideal gas and inversion temperature.

Ionic Equilibria-I: Strong, moderate and weak electrolytes, degree of ionization, factors affecting degree of ionization, ionization constant and ionic product of water. Ionization of weak acids and bases, pH scale, common ion effect.

UNIT-II: Ionic Equilibria: II and Chemical Equilibrium (15Hours)

Ionic Equilibria-II: Salt hydrolysis-calculation of hydrolysis constant, degree of hydrolysis and pH for different salts. Buffer solutions. Solubility and solubility product of sparingly soluble salts – applications of solubility product principle.

Chemical Equilibrium: Free energy change in a chemical reaction. Thermodynamic derivation of the law of chemical equilibrium (VantHoff reaction isotherm). Distinction between ΔG and ΔG^{o}, Le Chatelier's principle. Relationships between K_p, K_c and K_x for reactions involving ideal gases. Variation of equilibrium constants with temperatures.

UNIT-III: Spectroscopy, Alkyl and Aryl Halides (15 Hours)

Spectroscopy: Introduction to conventional methods of elucidation of structure of organic compounds (chemical degradation) and comparison with spectroscopic methods, electromagnetic spectrum.

UV spectroscopy: Principle, types of transitions, chromophores, concept of auxochromes and their effect on λ_{max}, bathochromic shift, hypsochromic shift, hypochromic and hyperchromic shift. Woodward and Fieser rules and illustration of calculation of λ_{max} taking myrcene and B-phelladrene as examples.

Alkyl and Aryl Halides

Functional group approach for the following reactions (preparations & reactions) to be studied in context to their structure.

Alkyl Halides: Types of Nucleophilic Substitution (S_N1, S_N2 and S_Ni) reactions.

Preparation of alkyl halides from alkenes and alcohols.

Reactions: hydrolysis, nitrite & nitro formation, nitrile & isonitrile formation. Williamson's ether synthesis.

Aryl Halides: Preparation of aryl halides (Chloro, bromo and iodo-benzene) from phenol, Sandmeyer & Gattermann reactions.

Reactions (Chlorobenzene): Aromatic nucleophilic substitution (replacement by –OH group) and effect of nitro substituent. Benzyne Mechanism: KNH_2/NH_3 (or $NaNH_2/NH_3$).

Reactivity and Relative strength of C-Halogen bond in alkyl, allyl, benzyl, vinyl and aryl halides.

UNIT-IV: Aldehydes and ketones, Carboxylic Acids, Ethers and Epoxides(15Hours)

Aldehydes and ketones (aliphatic and aromatic): (Formaldehyde, acetaldehyde, acetone and benzaldehyde) *Preparation:* from acid chlorides and from nitriles.

Reactions – Reaction with HCN, ROH, $NaHSO_3$, NH_2-G derivatives. Iodoform test. Aldol Condensation, Cannizzaro's reaction, Wittig reaction, Benzoin condensation. Clemensen reduction.

Carboxylic Acids: Nomenclature, structure and bonding, acid strengths of mono, di and tri chloroacetic acids and nitro, chloro and hydroxy substituted benzoic acids, mechanism of esterification and hydrolysis of ester (Aac2 and Bac2).Reactions of carboxylic acids - i) Conversion into acid derivatives(acid chlorides, amides, esters and anhydrides), ii) Curtius rearrangement, iii) Reaction with organometallic compounds and iv) Hell-Volhard-Zelinsky reaction.

Ethers: Nomenclature of ethers and their methods of preparation, chemical reactions - Reaction with HI, hot and cold taking symmetric and unsymmetrical ethers. Crown ethers: Definition, examples, use of crown ethers as phase transfer catalysts.

Epoxides: Synthesis of 1,2-epoxy ethane and 1,2-epoxycyclopentane, acid catalyzed ring opening of 1,2-epoxycyclopentane in aqueous solution.

Reference:

1. Graham Solomon, T.W., Fryhle, C.B. & Dnyder, S.A. *Organic Chemistry,* John Wiley & Sons (2014).
2. McMurry, J.E. *Fundamentals of Organic Chemistry*, 7th Ed. Cengage Learning India Edition, 2013.
3. Sykes, P. *A Guidebook to Mechanism in Organic Chemistry,* Orient Longman, New Delhi (1988).

4. Finar, I.L. *Organic Chemistry* (Vol. I & II), E.L.B.S.
5. Morrison, R.T. & Boyd, R.N. *Organic Chemistry*, Pearson, 2010.
6. Bahl, A. & Bahl, B.S. *Advanced Organic Chemistry*, S. Chand, 2010.
7. Barrow, G.M. *Physical Chemistry* Tata McGraw-Hill (2007).
8. Castellan, G.W. *Physical Chemistry* 4th Ed. Narosa (2004).
9. Kotz, J.C., Treichel, P.M. & Townsend, J.R. *General Chemistry* Cengage Learning India Pvt. Ltd., New Delhi (2009).
10. Mahan, B.H. *University Chemistry* 3rd Ed. Narosa (1998).
11. Petrucci, R.H. *General Chemistry* 5th Ed. Macmillan Publishing Co.: New York (1985).

Second Semester B.Sc. (Chemistry)

Paper Code: CHEDSCP 2.1 **Paper Title:** Practicals-2
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours:45 **Credits:** 1

***SECTION A.* Organic Spotting**

Identification of following organic compounds and preparation of their derivatives and confirmation by melting points:

S. L	Name of compound	S. L	Name of compound
1	Phthalic acid	9	Acetone
2	Benzoic Acid	10	Ethyl benzoate
3	Salicylic Acid	11	Benzaldehyde
4	Aniline	12	Acetanilide
5	*p*-Nitroaniline	13	Naphthalene
6	Phenol	14	Urea
7	1-Naphthol	15	Benzamide
8	2-Naphthol		

***Section B:* Identification by**

1. Element detection, 2. Solubility, 3. Functional group, 4. Physical constant,

5. Preparation of derivatives and finding melting points.

Reference Books

1. Vogel, A.I., Tatchell, A.R., Furnis, B.S., Hannaford, A.J. & Smith, P.W.G., *Textbook of Practical Organic Chemistry*, Prentice-Hall, 5th edition, 1996.

2. Mann, F.G. & Saunders, B.C. *Practical Organic Chemistry* Orient-Longman, 1960.

3. Khosla, B. D.; Garg, V. C. & Gulati, A. *Senior Practical Physical Chemistry*, R. Chand & Co.: New Delhi (2011).

Third Semester B.Sc. (Chemistry)

Paper Code: CHEDSCT 3.1 **Paper Title:** Chemistry-3
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits:** 3

UNIT-I: Solutions and Liquids (15Hours)

Solutions: Thermodynamics of ideal solutions: Ideal solutions and Raoult's law, deviations from Raoult's law – non-ideal solutions. Vapour pressure-composition and temperature-composition curves of ideal and non-ideal solutions. Distillation of solutions.

Partial miscibility of liquids: Critical solution temperature; effect of impurity on partial miscibility of liquids. Immiscibility of liquids- Principle of steam distillation. Nernst distribution law and its applications, solvent extraction.

Liquids: Surface tension and its determination using stalagmometer. Viscosity of a liquid and determination of coefficient of viscosity using Ostwald viscometer. Effect of temperature on surface tension and coefficient of viscosity of a liquid (qualitative treatment only).

UNIT II: Electrochemistry and Phase Equilibrium 15Hours)

Electrochemistry: Reversible and irreversible cells. Concept of EMF of a cell. Measurement of EMF of a cell. Nernst equation and its importance. Types of electrodes. Standard electrode potential. Electrochemical series. Thermodynamics of a reversible cell, calculation of thermodynamic properties: ΔG, ΔH and ΔS from EMF data. Calculation of equilibrium constant from EMF data. Concentration cells with transference and without transference. Liquid junction potential and salt bridge. pH determination using hydrogen electrode and quinhydrone electrode. Potentiometric titrations -qualitative treatment (acid-base and oxidation-reduction only).

Phase Equilibrium: Phases, components and degrees of freedom of a system, criteria of phase equilibrium. Phase diagrams of one-component systems (water and sulphur) and two component systems involving eutectics, congruent and incongruent melting points (KI/H_2O, Bi-Cd).

UNIT-III: Orientation, Alcohols and Phenols (15Hous)

Orientation: Review of inductive, electromeric, resonance and hyperconjugation effects, activating and deactivating groups, orientation of substituent in aromatic compounds with different functional groups like –OH, -NH2, -Cl, -NO2, -CH3, and -COOH in halogenation and nitration reactions (only electronic interpretation).

Alcohols: Introduction and nomenclature of dihydric and trihydric alcohols, preparation of glycol from ethene, oxidative cleavage of ethylene glycol with lead tetra acetate and per iodic acid, pinacol–pinacolone rearrangement, preparation of glycerol from propene, synthesis and uses of nitroglycerine, composition and uses of dynamite and cordite, distinction between primary, secondary and tertiary alcohols by Lucas reagent.

Phenols: Classification and nomenclature, acidic character of phenol compared to alcohol and cyclohexenol, mechanism of Fries rearrangement, Claisen rearrangement, Elbs persulphate oxidation and Lederer-Manasse reaction, synthesis and uses of n-hexyl resorcinol and picric acid, structure and uses of dettol.

Unit-IV: Spectroscopy and Aromatic Hydrocarbons. (15Hours)

Infrared spectroscopy: Principle, types of vibrations, identification of following organic compounds by stretching frequencies–Alkanes, alkenes, alkynes, benzene, aldehydes, ketone, alcohol, thiols, acids, esters, amines, problems based on molecular formula and stretching frequency.

Mass Spectroscopy: Principle, instrumentation, definitions of parent peak and base peak, McLafferty rearrangement with respect to butyraldehyde.

Aromatic Hydrocarbons: Resonance in benzene, Aromaticity–Huckel's 4n +2 rule with respect to benzene, furan, pyridine and [10]–annulene. Mechanism of electrophilic aromatic substitution–halogenation, nitration, sulphonation and Friedel-Craft's reaction (evidences for two step mechanism and evidences for formation of electrophile).

Poly nuclear hydrocarbons: Classification, examples, constitution of naphthalene, Haworth synthesis, nitration and sulphonation of naphthalene.

Reference Books:

1. Barrow, G.M. *Physical Chemistry* Tata McGraw-Hill (2007).
2. Castellan, G.W. *Physical Chemistry* 4th Ed. Narosa (2004).
3. Kotz, J.C., Treichel, P.M. & Townsend, J.R. *General Chemistry*, Cengage Learning India Pvt. Ltd.: New Delhi (2009).
4. Mahan, B.H. *University Chemistry*, 3rd Ed. Narosa (1998).
5. Petrucci, R.H. *General Chemistry*, 5th Ed., Macmillan Publishing Co.: New York (1985).
6. Morrison, R. T. & Boyd, R. N. *Organic Chemistry*, Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).
7. Finar, I. L. *Organic Chemistry* (*Volume 1*), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).
8. Finar, I. L. *Organic Chemistry* (*Volume 2)*, Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).
9. Nelson, D. L. & Cox, M. M. *Lehninger's Principles of Bioch*emistry *7th Ed.*, W. H. Freeman.
10. Berg, J.M., Tymoczko, J.L. & Stryer, L. *Biochemistry*, W.H. Freeman, 2002.

Third Semester B.Sc. (Chemistry)

Paper Code: CHEDSCP 3.1 Paper Title: Practicals-3
Teaching Hours: 3 H / Week Marks: Th-40+IA-10
Total hours: 45 Credits: 1

Section A: Physical Chemistry Experiments (40 Marks)

1. To study the effect of acid strength on hydrolysis of methyl acetate using HCl and H_2SO_4.
2. To determine the rate constant of second order reaction KI+$K_2S_2O_8$ (a=b) and effect of concentration on rate constant of second order reaction.
3. Adsorption of acetic acid on animal charcoal.
4. Determination of surface tension and parachor of benzene series.
5. Determination of surface tension and parachor of alcohol series.
6. Determination of viscosity of liquids of Ostwald's method.
7. Determination of viscosity of binary liquid mixtures and finding the percentage composition unknown.
8. Determination of molecular weight of urea by Landbergers method.
9. Determination of degree of dissociation of KCl by Landbergers method.
10. Determination of equilibrium constant of distribution of iodine between KI and CCl4.

Section B: Inorganic volumetric experiments:

11. Preparation of aqueous iron solutions and estimation of iron using standard$K_2Cr_2O_7$.(Internal indicator method).
12. Preparation of aqueous solution of copper and zinc from brass andestimation of percentage of copper using standard sodium thiosulphatesolution.
13. Preparation of calcium solution from lime stone and estimation ofpercentage of calcium using oxalate method.
14. Estimation of zinc using standard solution of potassium ferro cyanide(Standardization of the titrant be done using standard zinc sulphatesolution.

Reference Books:

1. Vogel, A.I., Tatchell, A.R., Furnis, B.S., Hannaford, A.J. & Smith, P.W.G., *Textbook of Practical Organic Chemistry*, Prentice-Hall, 5th edition, 1996.
2. Mann, F.G. & Saunders, B.C. *Practical Organic Chemistry* Orient-Longman, 1960.
3. Khosla, B. D.; Garg, V. C. & Gulati, A. *Senior Practical Physical Chemistry,* R. Chand & Co.: New Delhi (2011).
4. Ahluwalia, V.K. & Aggarwal, R. *Comprehensive Practical Organic Chemistry,* Universities Press.

Third Semester B.Sc. (Chemistry) Skill Enhancement Course

Paper Code: CHESECT 3.2 **Paper Title:** Chemistry of Cosmetics & Perfumes
Teaching Hours: 3h / Week **Marks:** Th-40+IA-10
Total hours:30 **Credits:** 2

CHEMISTRY OF COSMETICS & PERFUMES **15 hours**

A general study including preparation and uses of the following: Hair dye, hair spray, shampoo, suntan lotions, face powder, lipsticks, talcum powder, nail enamel, creams (cold, vanishing and shaving creams), antiperspirants and artificial flavours. Essential oils and their importance in cosmetic industries with reference to Eugenol, Geraniol, sandalwood oil, eucalyptus, rose oil, 2-phenyl ethyl alcohol, Jasmone, Civetone, Muscone.

Practicals **15 hours**

1. Preparation of talcum powder.
2. Preparation of shampoo.
3. Preparation of enamels.
4. Preparation of hair remover.
5. Preparation of face cream.
6. Preparation of nail polish and nail polish remover.

Reference Books:

1. E. Stocchi: *Industrial Chemistry*, Vol -I, Ellis Horwood Ltd. UK.
2. P.C. Jain, M. Jain: *Engineering Chemistry*, Dhanpat Rai & Sons, Delhi.
3. Sharma, B.K. & Gaur, H. *Industrial Chemistry,* Goel Publishing House, Meerut(1996).

Fourth Semester B.Sc. (Chemistry)

Paper Code: CHEDSCT 4.1 **Paper Title:** Chemistry-4
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

UNIT I: Transition Elements (3d series) and Coordination Chemistry (15Hours)

Transition Elements (3d series): General group trends with special reference to electronic configuration, variable valency, colour, magnetic and catalytic properties, ability to form complexes and stability of various oxidation states (Latimer diagrams) for Mn, Fe and Cu.

Lanthanoids and actinoids: Electronic configurations, oxidation states, colour, magnetic properties, lanthanide contraction, separation of lanthanides (ion exchange method only).

Coordination Chemistry: Valence Bond Theory (VBT): Inner and outer orbital complexes of Cr, Fe, Co, Ni and Cu (coordination numbers 4 and 6). Structural and stereoisomerism in complexes with coordination numbers 4 and 6. Drawbacks of VBT. IUPAC system of nomenclature.

UNIT- II: Chemistry of d-block and f-block elements, Chelates, Environmental Chemistry (15Hours)

Chemistry of d and f block elements: General characteristics of d block elements- Electronic configuration, oxidation states, metallic property, colour, reactivity, reducing property, magnetic, catalytic and complex formation properties. General characteristics of f block elements - Electronic configuration, cause and consequences of lanthanide contraction. General features of actinides- electronic configuration, oxidation state, extraction of uranium from pitchblende.

Chelates: definition, characteristics, factors influencing the stability of metal chelates and importance of chelates.

Environmental Chemistry

*Air pollution***:** Types of pollutants, sources and control measures- CO, CO_2, SOx, NOx, H_2S, hydrocarbons, CFC's and particulates, pesticides, and their adverse effects.

Water pollution: Types of pollutants, sources and adverse effects (sewage, infectious agents, organic chemicals and inorganic mineral, oils and sediments) Parameters of water pollution – Dissolved oxygen (DO), biological oxygen demand (BOD) and chemical oxygen demand (COD), definitions and their determinations. Treatment of sewage and industrial effluents - Preliminary, primary and secondary treatment (Aerated lagoons, trickling filters and activated sludge).

UNIT-III Kinetic Theory of Gases and Conductance (15Hours)

Kinetic Theory of Gases: Derivation of the kinetic gas equation. Deviation of real gases from ideal behaviour, compressibility factor, causes of deviation. van der Waals equation of state for real gases. Boyle temperature (derivation not required). Critical phenomena, critical constants and their calculation from van der Waals equation. Andrews isotherms of CO_2.Maxwell Boltzmann distribution laws of molecular velocities and molecular energies (graphic representation – derivation not required) and their importance. Temperature dependence of these distributions. Most probable, average and root mean square velocities (no derivation). Collision cross section, collision number, collision frequency, collision diameter and mean free path of molecules. Viscosity of gases and effect of temperature and pressure on coefficient of viscosity (qualitative treatment only).

Conductance: Conductivity, equivalent and molar conductivity and their variation with dilution for weak and strong electrolytes. Kohlrausch law of independent migration of ions. Transference number and its experimental determination using Hittorf and Moving boundary methods. Ionic mobility. Applications of conductance measurements: determination of degree of ionization of weak electrolyte, solubility and solubility products of sparingly soluble salts, ionic product of water, hydrolysis constant of a salt. Conductometric titrations (only acid-base).

UNIT-IV Theory of Solids and Chemical Kinetics (15 Hours)

Solids: Forms of solids. Symmetry elements, unit cells, crystal systems, Bravais lattice types and identification of lattice planes. Laws of Crystallography - Law of constancy of interfacial angles, Law of rational indices. Miller indices. X–Ray diffraction by crystals, Bragg's law. Structures of NaCl, KCl and CsCl (qualitative treatment only). Defects in crystals. Glasses and liquid crystals.

Chemical Kinetics: The concept of reaction rates. Effect of temperature, pressure, catalyst and other factors on reaction rates. Order and molecularity of a reaction. Derivation of integrated rate equations for zero, first and second order reactions (both for equal and unequal concentrations of reactants). Half–life of a reaction. General methods for determination of order of a reaction. Concept of activation energy and its calculation from Arrhenius equation.

Theories of Reaction Rates: Collision theory and Activated Complex theory of bimolecular reactions. Comparison of the two theories (qualitative treatment only).

Reference Books:

1. Barrow, G.M. *Physical Chemistry* Tata McGraw-Hill (2007).
2. Castellan, G.W. *Physical Chemistry* 4th Ed. Narosa (2004).

3. Kotz, J.C., Treichel, P.M. & Townsend, J.R. *General Chemistry* Cengage Learning India Pvt. Ltd., New Delhi (2009).
4. Mahan, B.H. *University Chemistry* 3rd Ed. Narosa (1998).
5. Petrucci, R.H. *General Chemistry* 5th Ed. Macmillan Publishing Co.: New York (1985).
6. Cotton, F.A. & Wilkinson, G. *Basic Inorganic Chemistry*, Wiley.
7. Shriver, D.F. & Atkins, P.W. *Inorganic Chemistry*, Oxford University Press.
8. Wulfsberg, G. *Inorganic Chemistry*, Viva Books Pvt. Ltd.
9. Rodgers, G.E. *Inorganic & Solid-State Chemistry*, Cengage Learning India Ltd., 2008.

Fourth Semester B.Sc. (Chemistry)

Paper Code: CHEDSCP 4.1 **Paper Title:** Practicals-4
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours: 45 **Credits:** 1

Section A: Inorganic Chemistry **(40 Marks)**

Semi-micro Qualitative analysis of two simple inorganic Salts

ANIONS: CO_3^{-2}, S^{-2}, Cl^-, Br^-, I^-, NO_3^-, SO_4^{-2}

CATIONS: Pb^{+2}, Cu^{+2}, Al^{+3}, Fe^{+2}, Fe^{+3}, Mn^{+2}, Co^{+2}, Ni^{+2}, Zn^{+2}, Ca^{+2}, Ba^{+2}, Mg^{+2}, Na^+, K^+ and NH^+_4

Section B: *Inorganic Chemistry*

1. Determination of dissolved oxygen present in water by Winkler's method.
2. Determination of C.O.D in polluted water.

Reference Books:

1. Svehla, G. *Vogel's Qualitative Inorganic Analysis*, Pearson Education, 2012.
2. Mendham, J. *Vogel's Quantitative Chemical Analysis*, Pearson, 2009.
3. Khosla, B. D.; Garg, V. C. & Gulati, A. *Senior Practical Physical Chemistry,* R. Chand & Co.: New Delhi (2011).

Fourth Semester B.Sc. (Chemistry) Skill Enhancement Course

Paper Code: CHESEC 4.2 **Paper Title:** Fuel Chemistry
Teaching Hours: 3 H / Week **Marks:** Th-80+IA-20
Total hours:30 **Credits :**2

UNIT-I: FUEL CHEMISTRY: 15 hours

Review of energy sources (renewable and non-renewable). Classification of fuels and their calorific value.

Coal: Uses of coal (fuel and nonfuel) in various industries, its composition, carbonization of coal. Coal gas, producer gas and water gas—composition and uses. Fractionation of coal tar, uses of coal tar bases chemicals, requisites of a good metallurgical coke, Coal gasification (Hydro gasification and Catalytic gasification), Coal liquefaction and Solvent Refining.

Petroleum and Petrochemical Industry: Composition of crude petroleum, Refining and different types of petroleum products and their applications.

UNIT-II 15 hours

Fractional Distillation (Principle and process), Cracking (Thermal and catalytic cracking), Reforming Petroleum and non-petroleum fuels (LPG, CNG, LNG, bio-gas, fuels derived from biomass), fuel from waste, synthetic fuels (gaseous and liquids), clean fuels. Petrochemicals: Vinyl acetate, Propylene oxide, Isoprene, Butadiene, Toluene and its derivatives Xylene. ***Lubricants:*** Classification of lubricants, lubricating oils (conducting and non-conducting) Solid and semisolid lubricants, synthetic lubricants. Properties of lubricants (viscosity index, cloud point, pore point) and their determination.

Reference:

1. Stocchi, E. *Industrial Chemistry*, Vol-I, Ellis Horwood Ltd. UK (1990).
2. Jain, P.C. & Jain, M. *Engineering Chemistry* Dhanpat Rai & Sons, Delhi.
3. Sharma, B.K. & Gaur, H. *Industrial Chemistry*, Goel Publishing House, Meerut (1996).

Fifth Semester B.Sc. (Chemistry)

Paper Code: CHEDSET 5.1 **Paper Title**: Chemistry-5
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

UNIT-I: Nanomaterials, Theory of gravimetric analysis and Inorganic polymers **(15Hours)**

Nano materials: Overview of nanostructures and nanomaterials: classification. Preparation of gold and silver metallic nanoparticles, self-assembled nanostructures-control of nanoarchitecture-one dimensional control. Carbon nanotubes and inorganic nanowires. Bio-inorganic nanomaterials.

Theory of gravimetric analysis: Principles of gravimetric analysis- super saturation, von Weimar equation, conditions of precipitation, coprecipitation and post precipitation. Separation of precipitate from mother liquor, washing, properties of wash liquid, drying and ignition of precipitate, weighing form.

Inorganic polymers: Inorganic polymers, Types, comparison with organic polymers, silicones, phosphonitrilic halides- formation, structure and applications.

UNIT-II: Heterocyclic Compounds, Green Chemistry, Alkaloids (15Hours)

Heterocyclic Compounds: Classification, molecular orbital picture and Aromatic character of furan, thiophene, pyrrole and pyridine, synthesis of the following compounds.

i). Furan, thiohene and pyrrole from 1,4- diketones. ii) Pyridine by Hantzch synthesis.

Electrophilic substitution reactions of pyrrole, furan and pyridine (chlorination and nitration), comparison of basicities of pyridine, piperidine and pyrrole.

Green Chemistry: The need for green chemistry and eco-efficiency, green methods, green products, recycling of wastes, 12 principles of green chemistry.

Alkaloids: Definition, source, classification and general characteristics, Hofmann exhaustive methylation with pyridine as an example. Isolation, constitution and confirmation by synthesis – Coniine, hygrine and nicotine.

UNIT III: Microwave Spectroscopy & Vibrational spectrum (15Hours)

Microwave Spectroscopy: Classification of molecules, rotational spectra of rigid diatomic molecules, criteria for showing the spectra, energy levels of rigid rotator, selection rules (final equations only), determination of bond length and moment of inertia of HCl molecule.

Vibrational spectrum: Simple harmonic oscillator, Hooke's law, energy level of simple harmonic oscillator model of diatomic molecule (final equations only), selection rules, zero-point energy determination of force constant and qualitative relation between force constant and bond dissociation energies. Vibrational degrees of freedom of molecules (Linear and nonlinear).

UNIT IV Retro synthesis and Properties of Polymers (15Hours)

Retrosynthesis: Introduction to retrosynthetic analysis, synthons, synthetic equivalents, functional group interconversions, one and two group C-X disconnection (definitions and examples only). Retrosynthesis of benzocaine and 4-methoxy acetophenone.

Properties of Polymers (Physical, thermal, Flow & Mechanical Properties): Brief introduction to preparation, structure, properties and application of the following polymers: polyolefins, polystyrene and styrene copolymers, poly (vinyl chloride) and related polymers, poly (vinyl acetate) and related polymers, acrylic polymers, fluoro polymers, polyamides and related polymers. Phenol formaldehyde resins (Bakelite, Novalac), polyurethanes, silicone polymers, polydienes, Polycarbonates, Conducting Polymers, [polyacetylene, polyaniline, poly (p-phenylene sulphide polypyrrole, polythiophene)].

Fifth Semester B.Sc. (Chemistry)

Paper Code: CHEDSEP 5.1 **Paper Title:** Practicals-5
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours: 45 **Credits:** 1

Section A: Organic Chemistry **(40 Marks)**

Analysis of binary Organic mixture

Systematic qualitative analysis of binary mixture (solid+solid and liquid+liquid).
Type of mixture to be given

a. Acid+Base: Benzoic acid+*p*-Nitroaniline / Cinnamic acid+*m*-Nitroaniline
b. Acid+ Neutral: Benzoic acid+Naphthalene / Phthalic acid+Acetanilde
c. Base+Neutral: *o*-Nitroaniline+Acetanilide / p-Nitroaniline+Naphthalene
d. Phenol+Neutral: 1-Naphthol+Benzamide / 2-Naphthol+Acetanilide
e. Phenol+Base: 2-Naphthol+*p*-Nitroaniline / 1-Naphthol+*m*-Nitroaniline
f. Neutral+Neutral (liquid+liquid): Acetone+Ethyl benzoate / Nitrobenzene+Acetone

Section B: ***Organic Chemistry***

a. Fractional crystallization: Separation of mixture of naphthalene and biphenyl
b. Fractional distillation: Separation of mixture of benzene and toluene.

Note: Only experiments in Section A are to be given in practical examination. Student shall separate the mixture and analyze one compound as suggested by examiner and he has to prepare the derivative for the same.

Fifth Semester B.Sc. (Chemistry)

Paper Code: CHEDSET 5.2A **Paper Title:** Chemistry-5A
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

UNIT-I: Industrial Chemistry-I (15Hours)

Alloys-Significance, types of alloys (ferrous and non-ferrous alloys), preparation (fusion and electro-deposition) and their applications.

Abrasives- Classification, Mohr scale of hardness, Manufacture and application of carborundum, alundum, tungsten carbide.

Glass - physical and chemical properties of glass, raw materials, manufacture using tank furnace, annealing of glass, types, composition and uses of glasses.

Industrial Chemistry-II

Cement: Raw materials, composition of Portland cement, manufacture by rotary kiln method, mechanism of setting.

Fuels: characteristic and calorific values of fuels, advantages of gaseous fuels, Manufacture of water gas and biogas.

UNIT-II Reagents and Reactions and Dyes (15Hours)

Reagents and Reactions: Preparation, mechanism of action and applications DCC (Amide formation), $LiAlH_4$ (reduction of aldehyde, carboxylic acid and ester), DDQ (Benzylic oxidation of tetralin, aromatization of tetralin), Lead Tetra Acetate(oxidation of 1,2-diols), NBS(allylic bromination), OsO_4 (hydroxylation of alkenes), PCC(Pyridinium chlorochromate) in the oxidation of primary alcohols.

Dyes: Classification, requirement of a dye, colour and constitution. The synthesis of each of the following Class of dyes: Azo dyes-Congo red, Vat dyes–Indigo, Anthraquinone dyes–Alizarin Triphenylemethane dyes–Malachite green, Crystal violet, Phthalein dyes-Fluoroscein, Eosin; Synthesis of each dyes.

UNIT-III Surface Chemistry and Second law of thermodynamics (15Hours)

Surface Chemistry: Adsorption, derivation of Frendlich and Langmuir's adsorption isotherms. Forms of Langmuir's adsorption isotherms at high- and low-pressure regions, BET equation (No derivation), determination of surface area using BET equation.

Catalysis–Theories of catalysis-intermediate and adsorption theory, enzyme catalysis-Michaelis–Menten equation, industrial applications of catalysis.

Second law of thermodynamics: Statement, cyclic process, Carnot's cycle, heat engine and its efficiently, Carnot's theorem, entropy and its significance, entropy changes in reversible and irreversible process for ideas gases, free energy, dependence of free energy on pressure

and temperature, Gibb's–Helmholtz equation, Clausius-Clapeyron equation and its applications, problems on above, partial molal quantities, chemical potential of on ideal gas.

UNIT IV: Simple collision theory of reaction rates and Industrial Metallurgy (15hours)

Simple collision theory of reaction rates: Derivation of rate constants of unimolecular (Lindemann hypothesis) and bimolecular reaction rates, limitations of collision theory.

Transition state theory: Theory Comparison of transition state theory and collision theory, steric factor.

Chemical kinetics of complex reactions-first order reaction, opposing, consecutive and parallel reactions.

Industrial Metallurgy

*General Principles of Metallurgy***:** Chief modes of occurrence of metals based on standard electrode potentials. Ellingham diagrams for reduction of metal oxides using carbon as reducing agent. Hydrometallurgy, Methods of purification of metals (Al, Pb, Ti, Fe, Cu, Ni, Zn): electrolytic, oxidative refining, Kroll process, Parting process, van Arkel-de Boer process and Mond's process. Preparation of metals (ferrous and nonferrous) and ultrapure metals for semiconductor technology.

Reference

1. Industrial chemistry B.K. Sharma
2. Engineering Chemistry Jain and Jain
3. Reaction Mechanism P.S. Kalsi
4. Mass Spectroscopy Y.R. Sharma
5. Synthetic Organic Chemistry Gurdeep Chatwal
6. Organic Chemistry P.L. Soni
7. Organic syntheses Jagadamba Singh and Yadav
8. Fundamentals of Organic Synthesis (Retrosynthesis) Ratan Kumar Kar
9. Electrochemistry Glasstone
10. Physical Chemistry Atkins
11. Engineering Chemistry Jain

Fifth Semester B.Sc. (Chemistry)

Paper Code: CHEDSEP 5.2A
Teaching Hours: 3 H / Week
Total hours:45

Paper Title: Practicals-5A
Marks: Th-40+IA-10
Credits: 1

Physical Chemistry experiments:

1. Determination of the concentration of HCl by conductometric titrationusing the standard NaOH.
2. Determination of the concentration of CH_3COOH by conductometrictitration using the standard NaOH.
3. Verification of Beer–Lambert's Law by colorimetric method and calculationof molar extension coefficient of $FeCl_3$.
4. Determination of dissociation constant of (weak acid) acetic acidconductometrically.
5. Determination of concentration of strong acid HCl by potentiometrictitration against strong solution of NaOH.
6. Determination of heat of neutralization of strong acid by strong base bywater equivalent calorimetric method.
7. Determination of specific rotation of glucose solution by polarimeter.
8. Determination of solubility of sparingly soluble salt($BaSO_4$)Conductometrically.

Section B: Instrumental Analysis

1. Estimation of Fe^{+3} spectrophotometrically through phenanthroline complex.
2. Determination of pH of biological fluids like milk, orange juice, citric acid, solution and sodium carbonate solution.

Note: Only experiments in Section A are to be given in practical examination.

Fifth Semester B.Sc. (Chemistry)

Paper Code: CHEDSET 5.2B
Teaching Hours: 4 H / Week
Total hours:60

Paper Title: Chemistry-5B
Marks: Th-80+IA-20
Credits :3

UNIT-I **(15 Hours)**

Basics: Constants, variables, bits, bytes, binary and ASCII formats, arithmetic expressions, hierarchy of operations, inbuilt functions. Elements of the BASIC language. BASIC keywords and commands. Logical and relative operators. Strings and graphics. Compiled versus interpreted languages. Debugging. Simple programs using these concepts. Matrix addition and multiplication. Statistical analysis.

UNIT-II Numerical methods: **(15 Hours)**

Roots of equations: Numerical methods for roots of equations: Quadratic formula, iterative method, Newton-Raphson method, Binary bisection and Regula-Falsi.

UNIT-III **(15 Hours)**

Differential calculus: Numerical differentiation.

Integral calculus: Numerical integration (Trapezoidal and Simpson's rule), probability distributions and mean values.

UNIT-IV **(15 Hours)**

Simultaneous equations:Matrix manipulation: addition, multiplication. Gauss-Siedal method.

Interpolation, extrapolation and curve fitting: Handling of experimental data.

Conceptual background of molecular modelling: Potential energy surfaces. Elementary ideas of molecular mechanics and practical MO methods.

Reference:

1. Harris, D. C. *Quantitative Chemical Analysis*. 6th Ed., Freeman (2007) Chapters 3-5.
2. Levie, R. de, *How to use Excel in analytical chemistry and in general scientific dataanalysis*, Cambridge Univ. Press (2001) 487 pages.
3. Noggle, J. H. *Physical chemistry on a Microcomputer*. Little Brown & Co. (1985).
4. Venit, S.M. *Programming in BASIC: Problem solving with structure and style.* JaicoPublishing House: Delhi (1996).

Fifth Semester B.Sc. (Chemistry)

Paper Code: CHEDSET 5.2B
Teaching Hours: 3 H / Week
Total hours: 45

Paper Title: Practicals-5B
Marks: Th-40+IA-10
Credits: 1

APPLICATIONS OF COMPUTERS IN CHEMISTRY (60 Hours)

1. Computer programs based on numerical methods for Roots of equations: (e.g. volume of van der Waals gas and comparison with ideal gas, pH of a weak acid).
2. Numerical differentiation (e.g., change in pressure for small change in volume of a van der Waals gas, potentiometric titrations).
3. Numerical integration (e.g. entropy/ enthalpy changes from heat capacity data), probability distributions (gas kinetic theory) and mean values.
4. Matrix operations. Application of Gauss-Siedel method in colourimetry.
5. Simple exercises using molecular visualization software.

Reference Books:

1. McQuarrie, D. A. *Mathematics for Physical Chemistry* University Science Books(2008).
2. Mortimer, R. *Mathematics for Physical Chemistry*. 3rd Ed. Elsevier (2005).
3. Steiner, E. *The Chemical Maths Book* Oxford University Press (1996).
4. Yates, P. *Chemical Calculations.* 2nd Ed. CRC Press (2007).
5. Harris, D. C. *Quantitative Chemical Analysis*. 6th Ed., Freeman (2007) Chapters 3-5.
6. Levie, R. de, *How to use Excel in analytical chemistry and in general scientific dataanalysis*, Cambridge Univ. Press (2001) 487 pages.

Fifth Semester B.Sc. (Chemistry) Skill Enhancement Course

Paper Code: CHESECT 5.3 **Paper Title: Basic Analytical Chemistry**
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours:30 **Credits :**2

UNIT-I **15 Hours**

Introduction: Introduction to Analytical Chemistry and its interdisciplinary nature. Concept of sampling. Importance of accuracy, precision and sources of error in analytical measurements. Presentation of experimental data and results, from the point of view of significant figures.

Analysis of soil: Composition of soil, Concept of pH and pH measurement, Complexometric titrations, Chelation, Chelating agents, use of indicators. Determination of pH of soil samples. Estimation of Calcium and Magnesium ions as Calcium carbonate by complexometric titration.

Analysis of water: Definition of pure water, sources responsible for contaminating water, water sampling methods, water purification methods. Determination of pH, acidity and alkalinity of a water samples. Determination of dissolved oxygen (DO) of a water sample.

Analysis of food products: Nutritional value of foods, idea about food processing and food preservations and adulteration. Identification of adulterants in some common food items like coffee powder, asafetida. chili powder, turmeric powder, coriander powder and pulses, etc. Analysis of preservatives and colouring matter.

UNIT-II **15 Hours**

Chromatography: Definition, general introduction on principles of chromatography, paper chromatography, TLC etc. Paper chromatographic separation of mixture of metal ion (Fe3+ and Al3+). To compare paint samples by TLC method

Ion-exchange: Column, ion-exchange chromatography etc. Determination of ion exchange capacity of anion / cation exchange resin (using batch procedure if use of column is not feasible.

Analysis of cosmetics: Major and minor constituents and their functional. Analysis of deodorants and antiperspirants, Al, Zn, boric acid, chloride, subphases. Determination of constituents of talcum powder: Magnesium oxide, Calcium oxide, Zinc oxide and Calcium carbonate by complexometric titration

Suggested Applications (Any one):

a. To study the use of phenolphthalein in trap cases.

b. To analyze arson accelerants.

c. To carry out analysis of gasoline

Suggested Instrumental demonstrations

Estimation of macro nutrients: Potassium, Calcium, Magnesium in soil samples by flame photometry.

1. Spectrophotometric determination of Iron in Vitamin / Dietary Tablets.
2. Spectrophotometric Identification and Determination of Caffeine and Benzoic Acid in Soft Drink.

Reference Books:

1. Willard, H.H., Merritt, L.L., Dean, J. & Settoe, F.A. Instrumental Methods of Analysis. 7th Ed. Wadsworth Publishing Co. Ltd., Belmont, California, USA, 1988.
2. Skoog, D.A. Holler F.J. & Nieman, T.A. Principles of Instrumental Analysis, Cengage Learning India Ed.
3. Skoog, D.A.; West, D.M. & Holler, F.J. Fundamentals of Analytical Chemistry 6thEd., Saunders College Publishing, Fort Worth (1992).
4. Harris, D. C. Quantitative Chemical Analysis, W. H. Freeman.
5. Dean, J. A. Analytical Chemistry Notebook, McGraw Hill.
6. Day, R. A. & Underwood, A. L. Quantitative Analysis, Prentice Hall of India.
7. Freifelder, D. Physical Biochemistry 2nd Ed., W.H. Freeman and Co., N.Y. USA (1982).
8. Cooper, T.G. The Tools of Biochemistry, John Wiley and Sons, N.Y. USA. 16 (1977).
9. Vogel, A. I. Vogel's Qualitative Inorganic Analysis 7th Ed., Prentice Hall.
10. Vogel, A. I. Vogel's Quantitative Chemical Analysis 6th Ed., Prentice Hall.

Sixth Semester B.Sc. (Chemistry)

Paper Code: CHEDSET 6.1 **Paper Title**: Chemistry-6
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

UNIT-I Coordination compounds –II and Bioinorganic Chemistry (15 hours)

Coordination compounds –II: Crystal field theory(CFT) with reference to octahedral, distorted octahedral(Jahn- Tellar distortion), tetrahedral and square planar complexes, calculation of crystal field stabilization energy, factors affecting 10Dq, consequences of crystal field splitting on ionic radii of M+2 ions, enthalpy of hydration of M+2 ions, explanation of colour and magnetic properties of magnetic complexes, limitations of crystal field theory, calculation of magnetic moment using Gouy's method.

Bioinorganic Chemistry: Essential and trace elements in biological process, metalloporphyrins with respect to haemoglobin and chlorophyll (structure and function), biological role of Na, K, Fe and Zn. **(4 hours)**

UNIT-II Carbohydrates, Vitamins and Amino acids, Peptides and Proteins (15 hours)

Carbohydrates: Haworth and conformational formulae of glucose and fructose, mutarotation and its mechanism, osazone formation, Killani's synthesis, Ruff's degradation, epimers and epimerisation with respect to monosaccharides, interconversions of glucose and fructose.

Vitamins: Vitamins: Classification and importance of vitamin-A, B6, B12, C, D and E. Synthesis of Vitamin-C from D(+)-glucose, synthesis of vitamin-A by Vandropetal.

Amino acids, Peptides and Proteins: Classification, structure and stereochemistry(D and L) of amino acids, acid-base behaviour, iso-electric point and electrophoresis, peptides- nomenclature and structure of peptides, synthesis of a dipeptide(Bergmann synthesis), Classification of proteins, levels of protein structure(primary, secondary and tertiary structure), protein denaturation and renaturation.**(06 hours)**

UNIT-III Electronic Spectrum, Physical properties and molecular structure and Quantum Chemistry (15 hours)

Electronic Spectrum: Concept potential energy curves for bonding and antibonding molecular orbitals, qualitative description of selection rules, energy levels and respective transitions, Frank–Condon principle. **(06 hours)**

Physical properties and molecular structure: Introduction-dipole moment, induced dipole moment, measurement of dipole moment by temperature variation method and its applications. **(04 hours)**

Quantum Chemistry: Photoelectric effect - Einstein's photoelectric equation, wave particle duality, de- Broglie hypothesis, de-Broglie equation(derivation), experimental verification-Davisson-Germer experiment. **(05 Hours)**

UNIT-IV: Terpenoids, Organometallic Chemistry, Organic Synthesis via enolates and Organic reagents in inorganic analysis. (15 hours)

Terpenoids: Introduction, classification of terpenes, Ingold's isoprene rule, constitution of citral with synthesis, synthesis of α and β ionones, synthesis of α-terpeniol.

Organometallic Chemistry: Introduction, classification of organotransition metal complexes, 18 electron rule with respect to $[Fe(CO)_5]$, $[Ni(CO)_5]$, $[Mn(CO)_5]^+$, ferrocene, structure and bonding in metal olefins (Zeise's Salt).

Organic Synthesis via enolates: Acidity of α-hydrogens, synthesis of ethyl acetoacetate (EAA) by Claisen condensation and its mechanism, synthesis of diethyl malonate, keto-enol tautomerism of EAA

Synthesis of following compounds using EAA and diethyl malonate:

i) ketones ii) carboxylic acids iii) heterocyclic compounds iv) dicarboxylic acids.

Organic reagents in inorganic analysis: Sensitivity, selectivity and specificity, advantages of organic reagents over inorganic reagents - Dimethyl glyoxime, 8-hydroxyquinoline(oxime).

Sixth Semester B.Sc. (Chemistry)

Paper Code: CHEDSET 6.2A **Paper Title:** Chemistry-6A
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

UNIT-I Analytical Chemistry, Soil Analysis and Fertilizer (15 Hours)

Chromatography: Principle, types, stationary and mobile phases, physical factors of separation, brief account of paper chromatography, calculation of Rf value, brief account of column chromatography and its applications.

Flame photometry: Principle, Limitations, Instrumentation, Flame photometric determination of Na and K.

Thermogravimetry: Principle and applications of thermogravimetric methods (TG and DTA).

Electrogravimetry: Principle, Instrumentation, Electrogravimetric determination of Copper.

Soil Analysis: Macro nutrients, trace metals and organic matter in soil. Determination of pH, Determination of nitrogen by alkaline permanganate method and phosphorus by Bray's and Olsen's method present in the soil.

Fertilizers: Different types of fertilizers, manufacture of the following fertilizers: Urea, ammonium nitrate, superphosphate of lime.

UNIT-II: Electronic spectra of transition metal complexes and Acids and Bases (15 Hours)

Electronic spectra of transition metal complexes: Russel-Sandar's coupling in defining ground states of spectrochemical series, derivation of spectroscopic ground terms(d1 to d10 without J values), types of electronic transitions(d-d transitions, charge transfer transitions-MLCT and LMCT), selection rule for d-d transitions, Orgel- energy level diagram-d1 and d2 states, discussion of the electronic spectrum of $[Ti(H_2O)_6]^{3+}$ complex ion.

Acids and Bases: Arrhenius, Bronsted-Lowry, Lux-Flood, solvent system and Lewis concepts of acids and bases. Hard and soft acids and bases (HSAB) - classification of acids and bases as hard and soft, Pearson's HSAB concept.

UNIT-III: Chemotherapy, Soaps and Detergents, Reaction Mechanism (15 Hours)

Chemotherapy: Introduction, requirement of an ideal synthetic drug, classification, synthesis and uses of the following-

Antipyretics–antipyrine, paracetamol Anaesthetics-novacaine (local) and pentothal sodium(general) Antihistamines–chlorpheniramine maleate (CPM) Antimalarials–paludrine, chloroquine Antibiotics-chloromycetin, penicillin, tetracyclin.

Para pharmaceutical reagents–Benedict’s reagent, sodium citrate, Barfoed reagent.

Soaps and Detergents:

Soaps: Introduction, manufacture by modern process, cleaning action of soap.

Detergents: anionic, cationic, nonionic, with suitable examples, distinction between soaps and detergents, emulsifiers, stabilisers and builders.

Reaction Mechanism

a) Beckmann rearrangement

b) Favorskii rearrangement

c) Benzidine rearrangement

d) Benzillic acid rearrangement

UNIT-IV: NMR Spectroscopy, Photochemistry and Solvents (15 Hours)

NMR Spectroscopy: Principle of Proton Magnetic Resonance(1H NMR) spectroscopy, nmr spectrum, chemical shift, nuclear shielding and deshielding, spin-spin coupling(n+1) rule, intensity(height) of the signal, TMS as internal standard-advantages, interpretation of PMR spectra of simple organic molecules such as ethyl bromide, n-propyl bromide, iso propyl bromide, ethanol, acetaldehyde and benzene

Photochemistry: Photochemical reactions, laws of photochemistry – Beer's law, Lambart's Law, Beer- Lambart's Law, Grothus-Draper Law and Einstein's Law of photochemical equivalence, quantum efficiency or yield, reasons for high and low quantum efficiencies with examples, fluorescence, phosphorescence, photosensitization and chemiluminescence.

Solvents: Types, properties of good solvents, non-aqueous solvents - Liquid NH3 and liquid HF, (properties like solvation, acid-base, redox, complex formation and precipitation), water as universal solvent, leveling effect.

Reference:

1. Advance Inorganic Chemistry Vol-I and II Gurudeep Raj
2. Advance Inorganic Chemistry Satya Prakash
3. Modern Inorganic Chemistry R.D. Madan
4. Inorganic Chemistry James Huheey
5. Concise Inorganic Chemistry J.D. Lee

- **Sixth Semester B.Sc. (Chemistry)**

Paper Code: CHEDSEP 6.2A **Paper Title:** Practical-6A
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours: 45 **Credits:** 1

Section A: Inorganic Chemistry:

Gravimetric experiments: (30 Marks)

1. Estimation of barium as Barium sulphate.
2. Estimation of aluminium as aluminium oxide.
3. Estimation of Iron as ferric oxide.
4. Estimation of led as led sulphate.

Section B:

Dissertation/Tour report/Project report (10Marks)

The Dissertation/Tour report/Project Report should be submitted at the time of **Chemistry Practical Examination.**

Student shall be assigned either dissertation /Tour report/Project report. The topics for dissertation shall be selected either from the V and VI semester theory syllabi or general topics related to chemistry. For Tour report, student shall visit an Industry or Academic/Research institutions like BARC, IISC etc.

Note: For examination: Gravimetric experiments and Dissertation/Tour report/Project work are Compulsory.

Sixth Semester B.Sc. (Chemistry)

Paper Code: CHEDSET 6.2B **Paper Title:** Chemistry-6B
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours: 60 **Credits:** 3

UNIT-I Literature Survey: (15 Hours)

Print: Sources of information: Primary, secondary, tertiary sources; Journals: Journal abbreviations, abstracts, current titles, reviews, monographs, dictionaries, text-books, current contents, Introduction to Chemical Abstracts and Beilstein, Subject Index, Substance Index, Author Index, Formula Index, and other Indices with examples.

Digital: Web resources, E-journals, Journal access, TOC alerts, Hot articles, Citation index, Impact factor, H-index, E-consortium, UGC infonet, E-books, Internet discussion groups and communities, Blogs, Preprint servers, Search engines, Scirus, Google Scholar, Chem-Industry, Wiki- Databases, Chem-Spider, Science Direct, Sci-Finder, Scopus.

UNIT-II Methods of Scientific Research and Writing Scientific Papers: 15 Hours

Reporting practical and project work. Writing literature surveys and reviews. Organizing a poster display. Giving an oral presentation. Writing scientific papers – justification for scientific contributions, bibliography, description of methods, conclusions, the need for illustration, style, publications of scientific work. Writing ethics. Avoiding plagiarism

UNIT-III Chemical Safety and Ethical Handling of Chemicals: 15 Hours

Safe working procedure and protective environment, protective apparel, emergency procedure and first aid, laboratory ventilation. Safe storage and use of hazardous chemicals, procedure for working with substances that pose hazards, flammable or explosive hazards, procedures for working with gases at pressures above or below atmospheric – safe storage and disposal of waste chemicals, recovery, recycling and reuse of laboratory chemicals, procedure for laboratory disposal of explosives, identification, verification and segregation of laboratory waste, disposal of chemicals in the sanitary sewer system, incineration and transportation of hazardous chemicals.

UNIT-IV Data Analysis 15 Hours

The Investigative Approach: Making and Recording Measurements. SI Units and their use. Scientific method and design of experiments.

Analysis and Presentation of Data: Descriptive statistics. Choosing and using statistical tests Chemometrics. Analysis of variance (ANOVA), Correlation and regression, Curve fitting, fitting of linear equations, simple linear cases, weighted linear case, analysis of residuals,

General polynomial fitting, linearizing transformations, exponential function fit, *r* and its abuse. Basic aspects of multiple linear regression analysis.

Reference:

1. Dean, J. R., Jones, A. M., Holmes, D., Reed, R., Weyers, J. & Jones, A. (2011) *Practical skills in chemistry*. 2nd Ed. Prentice-Hall, Harlow.
2. Hibbert, D. B. & Gooding, J. J. (2006) *Data analysis for chemistry*. Oxford University Press.
3. Topping, J. (1984) *Errors of observation and their treatment.* Fourth Ed., Chapman Hall, London.
4. Harris, D. C. *Quantitative chemical analysis*. 6th Ed., Freeman (2007) Chapters 3-5.
5. Levie, R. de, *How to use Excel in analytical chemistry and in general scientific data analysis.* Cambridge Univ. Press (2001) 487 pages.
6. Chemical safety matters – IUPAC – IPCS, Cambridge University Press, 1992.OSU safety manual 1.01

Sixth Semester B.Sc. (Chemistry)

Paper Code: CHEDSEP 6.2B **Paper Title:** Practical-6B
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours: 45 **Credits:** 1

Section A: Physical Chemistry (40 Marks)

1. Determination of concentration of given acids mixture ($HCl+CH_3COOH$) conductometrically using standard NaOH.
2. Determination of percentage composition of unknown mixture of A & B liquids using Abbe's refractometer by formula method.
3. Determination of percentage composition of unknown mixture of A & B liquids using Abbe's refractometer by graphical method.
4. Verification of Beer-Lamberts Law by colorimetric method and calculation of molar extension coefficient of copper sulphate.
5. Potentiometric titration of $FeSO_4$ against $K_2Cr_2O_7$.
6. Determination of the solubility and solubility product of sparingly soluble salts (Silver halides) by potentiometrically.
7. Conductometric precipitation titration of NaCl vs $AgNO_3$.
8. Determination of dissociation constant of weak acid (acetic acid) Potentiometrically.

Section B: Organic Preparations (Two step) (40 Marks)

1. Preparation of phthalimide from phthalic anhydride and Urea.
2. Preparation of p-bromoaniline from acetanilide.
3. Preparation of p-nitroaniline from acetanilide.
4. Preparation of Benzidine from Nitrobenzene.

Sixth Semester B.Sc. (Chemistry) Skill Enhancement Course

Paper Code: CHEDSET 6.3 **Paper Title:** Pharmaceutical Chemistry
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours: 30 **Credits:** 2

Unit-I **15 Hours**

Drugs & Pharmaceuticals

Drug discovery, design and development; Basic Retrosynthetic approach. Synthesis of therepresentative drugs of the following classes: analgesics agents, antipyretic agents, anti-inflammatory agents (Aspirin, paracetamol, lbuprofen); antibiotics (Chloramphenicol);antibacterial and antifungal agents (Sulphonamides; Sulphanethoxazol, Sulphacetamide,Trimethoprim); antiviral agents (Acyclovir), Central Nervous System agents (Phenobarbital,Diazepam),Cardiovascular (Glyceryl trinitrate), antilaprosy (Dapsone), HIV-AIDS relateddrugs (AZT- Zidovudine).**(18Hours)**

UNIT-II **15 Hours**

Fermentation

Aerobic and anaerobic fermentation. Production of (i) Ethyl alcohol and citric acid, (ii) Antibiotics; Penicillin, Cephalosporin, Chloromycetin and Streptomycin, (iii) Lysine, Glutamic acid, Vitamin B2, Vitamin B12 and Vitamin C.**(11 Hours)**

Practical's (04Hours)

1. Preparation of Aspirin and its analysis.
2. Preparation of magnesium bisilicate (Antacid).

Reference Books:

1. G.L. Patrick: Introduction to *Medicinal Chemistry, Oxford University* Press, UK.
2. Hakishan, V.K. Kapoor: *Medicinal and Pharmaceutical Chemistry*, Vallabh Prakashan, Pitampura, New Delhi.
3.William O. Foye, Thomas L., Lemke , David A. William: *Principles of Medicinal Chemistry*, B.I. Waverly Pvt. Ltd. New Delhi.

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RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF COMMERCE

1ST & 2ND Semestersw.e.f.

Academic Year 2020-21 and Onwards

Under

CHOICE BASED CREDIT SYSTEM (CBCS)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

Vidyasangama Bhootaramanhatti, Belagavi-591106

COURSE STRUCTURE

Bachelor of Commerce (CBCS)

Regular

(With Effect from Academic Year 2020-21)

	Course Code	Subject and Course	Teaching Hours	Examination Duration	End Semester Examination Marks	IA Marks	Total Marks	Total Credits
First Semester								
Part-I	AECC 1.1	MIL	4	3	80	20	100	3
	AECC 1.2	English	4	3	80	20	100	3
Part-II	DSC 1.3	Financial Accounting-I	5	3	80	20	100	3
	DSC 1.4	Market Behaviour and Cost Analysis	4	3	80	20	100	3
	DSC 1.5	Company Law and Administration	5	3	80	20	100	3
	DSC 1.6	Business Environment	4	3	80	20	100	3
Part-III	SEC 1.7	Practicals on Skill Development	2	2	40	10	50	1
Part-IV	AECC 1.8	Indian Constitution	2	2	40	10	50	2
	CC/EA 1.9	Extra Co-Curricular Activities	-		-	50	50	1
Total			**30**	**-**	**560**	**190**	**750**	**22**
Second Semester								
Part-I	AECC 2.1	MIL	4	3	80	20	100	3
	AECC 2.2	English	4	3	80	20	100	3
Part-II	DSC 2.3	Financial Accounting-II	5	3	80	20	100	3
	DSC 2.4	Modern Management Techniques	4	3	80	20	100	3
	DSC 2.5	Modern Marketing Management	4	3	80	20	100	3
	DSC 2.6	Investment Management	5	3	80	20	100	3
Part-III	SEC 2.7	Practicals on Skill Development	2	2	40	10	50	1

Part-IV	AECC 2.8	Environmental Studies	2	2	40	10	50	2
	CC/EA 2.9	Extra Co-curricular Activities	-	-	-	50	50	1
Total			**30**	**-**	**560**	**190**	**750**	**22**

Note:

1. The B.Com curriculum is divided into four parts and contains different courses, The courses have been named after **AECC:** Ability Enhancement Compulsory Course; **DSC:** Discipline Specific Course; **SEC:** Skill Enhancement Course; and **CC/EA:** Co-curricular and Extra Co-curricular Activities
2. A practicals on skill development subject is a 'hand–on class' which allows students to apply the theories learnt in the class room. One hour practical class is equal to one hour theory class and the class is managed by a single teacher. Practical classes may be conducted in the Business Lab or in Computer Lab or in the class room depending on the requirement. Senior/Experienced/Concerned subject teachers may be allotted the practical workload.
3. IA marks for practical on skill development subject shall be awarded on the basis of practical records submitted by the student and on the basis of internal assessment tests.
4. Co-curricular and Extension Activities: A student shall opt for one of the following activities offered in the college, in all the four semesters of the undergraduate programme. The activity carries a credit each and will be internally assessed for 50 marks. The activities may include a) N.S.S. / N.C.C b) Sports and Games c) Physical Education or Activities related to Yoga d) Field studies / Industry Inplant Training. e) Community work such as promotion of values of National Integration, Environment, Human rights and duties, Peace, Civic sense etc. f) A Small project work concerning the achievements of India in different fields g) Evolution of study groups/seminar circles on Indian thoughts and ideas. h) Computer assisted/web-based learning and e-library skills Evaluation of Co-curricular and Extension Activities shall be as per the procedure evolved by the university from time to time.
5. MIL, English, Indian constitution and Environmental science subjects are studied as per the circulations made by university from time to time. The contents of the syllabus and question papers pattern are also circulated from the university.

B.COM FIRST SEMESTER

COURSE - DSC-1.3: FINANCIAL ACCOUNTING-I

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objectives:

1. To make the students to acquire the conceptual and practical knowledge of accounting.
2. To equip the students with the knowledge of accounting process and skill for preparation of the books of accounts of various forms of business
3. To develop the skills of recording financial transactions and help in preparation of accounts.

Unit	Topics	No of Periods
I	**Conversion of Single entry system into double entry system:** Need for conversion, steps involved in conversion; problems relating thereto.	12
II	**Accounts of Professionals**: Accountants, Lawyers and Doctors only. Fees a/c, Petty Cash book, Clients Ledger, Receipts & Payments a/c, Income & Expenditure a/c & A Balance Sheet.	12
III	**Farm Accounting**: Meaning, objectives, Books of Accounts to be maintained under Single entry & Double entry for Farm Accounting. Preparation of Farm Revenue Account to ascertain the Profit or Loss: of various sections like Crop, Livestock, Dairy & Poultry. Preparation of B/S for Agriculture, Dairy farming & Poultry Farming.	12
IV	**Royalty Accounts**: Meaning and importance - minimum rent, short-workings, recoupment of short–workings, strike period; entries and accounts in the books of lessee and lessor (excluding sub lease)	12
V	**Fire Insurance Accounting:** Introduction – Need – Loss of stock Policy - Steps for Ascertaining Fire Insurance claim - Treatment of salvage – Average Clause – Treatment of Abnormal items – Computation of Fire Insurance Claims.	12

Reference Books:

1. Tulsian: Financial Accounting - Pearson Education, New Delhi.
2. Ashok Sehgal and Deepak Sehgal -Advanced Accounting - Vol. - I, Taxmann Publications, New Delhi.
3. S. N. Maheshwari & S. K. Maheshwari: Advanced Accountancy - Vol. –I & II, Vikas Publications,
4. Shukla & Grewal: Advanced Accountancy - Vol. –I S. Chand & Sons, New Delhi.
5. Jain & Narang: Financial Accounting Kalyani Publishers New Delhi.
6. Advanced Accountancy: Arulanandam, Himalaya publishers.
7. B. S. Navi & R. A. Sanandi: Financial Accounting –I, Shriniketan Publications

COURSE - DSC-1.4: MARKET BEHAVIOUR AND COST ANALYSIS

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To acquaint the students with different dimensions of market behavior and role of cost analysis in decision making.

Unit	Topics	No of Periods
I	**Firms and Decisions:** Firms - Meaning and Goals, Profit Maximization *vs* Wealth Maximization Dynamics, Decision Making – Features, Process, Strategy, Tactical and Operational Decisions, Game Theory, and Problems.	08
II	**Market Forces**: Demand - Meaning, Law of Demand, Nature of Elasticity of Demand, Determinants of Elasticity of Demand, Derived Demand Relations. Demand Forecasting - Meaning and Methods (Problems on Trend Projection by Method Least Squares); Supply - Law of Supply, and Determinants of Supply	10
III	**Location of a Firm**: Locating the Firm, Basic Principles, Selecting an Industrial Location, Primary and Secondary Factors; Sources of Capital, Internal and External Sources; Risk and Uncertainty – Concepts, and Investment Decisions under Uncertainty	10
IV	**Production and Cost Analysis:** Production Function – Concept and Importance, Cost Analysis - Meaning of Short-run and Long-run Costs, Fixed and Variable Costs, Explicit and Implicit Costs, Opportunity Cost and Incremental Costs (concepts only). Total Cost, Average Cost and Marginal Cost Behavior in Short-run and Long-run (including problems). CVP Analysis – Assumptions, Uses, P/V Ratio, BEP, BE Chart, Margin of Safety and Problems.	12
V	**Pricing Practices and Strategies:** Price – Pricing, Pricing Policy, Objectives and Determinants of Pricing Policy, Pricing Methods - Marginal Cost Pricing, Target Rate Pricing, Product Line Pricing, Administered Pricing, Competitive Bidding, Dual Pricing, Transfer Pricing; Price Discrimination - Requirements, Types and Dumping Strategies; Pricing over Product Life Cycle - Skimmed Pricing, Penetration Pricing, Product Line Pricing and Price Leadership; Linear Programming Problems – Problems on Profit Maximization and Cost Minimization using Graphic Method with twoVariables.	10

Note: Each unit to be dealt with suitable numerical problems and case studies from the real economic world wherever necessary.

Reference Books:

1. Dr. B. Mariyappa: Market Behaviour and Cost Analysis, HPH, New Delhi
2. R.L Varshney & Maheshwari: Managerial Economics, Sultan Chand & sons. New Delhi
3. Dwivedi D.N.: Managerial Economics, Vikas Publishing House, New Delhi.
4. Mithani D.M: Managerial Economics, Himalaya publishers, Mumbai
5. Lekhi R.K.: Business Economics, Kalyani Publishers, New Delhi.

COURSE - DSC-1.5: COMPANY LAW AND ADMINISTRATION

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To enable the students to get familiarized with the existing Company Law and Company administration.

Unit	Topics	No of Periods
I	**Joint Stock Companies:** Meaning, Definition and Features Joint Stock Companies, Kinds of Company (concepts only), Public V/c Private Companies- Formation of a Company – Steps viz. Promotion Stage: Meaning of Promoter, Position of Promoter and Functions of Promoter; Incorporation Stage: Steps in incorporation of a company; Meaning and Contents of Memorandum of Association and Articles of Association, Distinction between Memorandum of Association and Articles of Association- Subscription Stage – Meaning, Contents and Types of Prospectus; Commencement Stage – e-filing and Certificate of Commencement of Business.	14
II	**Capital of a Company:** Share Capital – Meaning of Shares – Kinds of Shares – Equity V/s Preference shares; Debentures – Meaning – Features – Types; SEBI guidelines for issue of shares and debentures, Types of Issue of Shares (concepts only), Book Building Process.	12
III	**Key Personnel and Administration:** Key Managerial Personnel – Managing Director, Whole time Directors, Company Secretary, Chief Financial Officer, Resident Director, Independent Director; Auditor – Appointment – Powers – Duties and Responsibilities; Managing Director – Appointment – Powers – Duties and Responsibilities; Audit Committee and CSR Committee, Company Secretary – Meaning, Qualification, Appointment, Duties and Liabilities.	10
IV	**Corporate Meetings:** Meaning and Definition – Requisites of a valid meeting - Types of Meeting: Statutory Meeting– Annual General Meeting – Extra- ordinary General Meeting – Board Meetings; Resolutions: Meaning and Types- Secretary's Duties in relation to these meetings.	12
V	**Structure and Administration of Global Companies:** Meaning – Types – Features – Legal Formalities – Administration- Ethical Practices in Company Administration.	12

Reference Books:

1. Elements of Corporate Law- S.N Maheshwari, HPH.
2. Business Law for Management- Balchandran, HPH
3. Principles of Company Law- M.C. Shukla & Gulshan
4. Company Law and Secretarial Practice- S.C. Kuchhal.

COURSE - DSC-1.6: BUSINESS ENVIRONMENT

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective:

1. To identify and manage factors influencing business.
2. To manage environment by rearranging environmental factors
3. To grab the opportunities and handle the threats

Unit	Topics	No. of periods
I	**Business Environment:** Business-meaning- characteristics-objectives of business. Environment-meaning Business Environment- Types – Internal Environment – External Environment – Micro Environment – factors – Macro Environmental – factors – Business decisions and Business Environment.	10
II	**Economic and Natural Environment:** Meaning – Economic System – Economic Policies – Economic factors – LPG – Natural environmental factors.	10
III	**Political and Legal Environment:** Political environment – Meaning- factors- Government role in business – Legal Environment – Meaning, Advantages and disadvantages of Government intervention in business - Socio-cultural environment – meaning and features.	10
IV	**Business ethics and community services:** Business ethics– meaning, benefits, Community services- meaning, benefits, types of community services, limitations of community services.	10
V	**Technological environment:** Meaning- benefits- impact of technology on society – on economy- on the plant, management of technology.	10

Reference Books:

1. Bedi Suresh, Business Environment – Excel Books, Ansari Road, Darya Ganj, New Delhi
2. Ashwatappa K Essential of Business Environment - Himalaya Publishing House
3. Srivastava O.S. Business Environment – KalyaniPublishers
4. Chidambaram K and Alagappen V Business Environment – Vikash Publishing House
5. Joshi Rosy Walia and Kapoor Sangam Business Environment – Kalyani Publishers
6. Kang K.N.S. Modern Business Environment – Deep and Deep Publishers
7. Saleem Shaik Business Environment – Pearson Education
8. Dr. M.L. Guledgudda Business Environment – Shri Sai Publications, Gadag

COURSE - SEC-1.7: PRACTICALS ON SKILL DEVELOPMENT

Weekly Practical Hours: 2 | Examination Duration: 2 Hours

Credits: 1 | Maximum Marks: 100

Objective: To enable students to learn practical aspects of business functions and help them to improve their knowledge relating to real practices of business in relations to particular functions.

Unit	Topics
I	• Collect a Trial Balance from a Sole Trader and prepare Final Accounts • Collect royalty agreement & prepare of royalty agreement with regard to any suitable situation • List out the transactions by local dairies/poultries and prepare final accounts • Collect Receipts and Payment Account of a Non-trading Concern • Preparation of list of items which comes under Royalty accounts • Calculation of policy premium with imaginary figures • Calculation of fire claims with imaginary figures
II	• Develop a case study on decision making under market uncertainties • A practical example with graphical presentation of Elasticity of Demand. • Construct a table with imaginary figures showing the relationship of various costs. • Practical analysis of product life cycle of a product. • List out factors to be considered for location of a new firm.
III	• Drafting of Memorandum of Association, • Drafting of Articles of Association. • Drafting Notice of Company Meetings – Annual, Special, Extraordinary and Board meetings. • Prepare a prospects of company • Prepare Company's Organization Structure. • List out the rights and obligations of owners of the company • List out code of ethics and governance related aspects of company
IV	• Identify the internal environment of non-trading organization and prepare the strength and weakness of any non-trading organization • Making list of socio-cultural factors of socio-cultural environment of trading organization • Identify the important ethical practices of Hotel Industry (visiting to the units). • Making list of Community Services of business towards village development. • Making list of important business laws that are linked with business. • Making list of business organization that are linked marriage seasons. • Developing techniques to handle the business threats. • Ascertaining impact of Banking Regulations on business.

B.COM SECOND SEMESTER

COURSE - DSC-2.3: FINANCIAL ACCOUNTING-II

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

OBJECTIVES:

1. To appraise the students about the application of accounting knowledge to special business formats
2. To impart the skills of preparation of final accounts of business organizations as per Indian accounting standards
3. To develop the skills of recording of transactions relating to issue of Consignment, branches, Hire purchase, Co-operative Societies and LLP manually.

Unit	Topics	No of Periods
I	**Consignment Accounts:** Meaning of consignment and important terms used in consignment. Valuation of stock, normal loss, abnormal loss; problems relating to consignment in the books of consignor and consignee, cost-price method and invoice-price method – theory and practical problems.	12
II	**Branch Accounts:** Dependent Branches: Features - Books of accounts - Methods of accounting of dependent branches: Debtors System, Stock and debtors (Cost price & Invoice Price) theory and practical problems excluding independent Branch.	12
III	**Hire Purchase Accounting: (**excluding Repossession) Hire Purchase System: Features – Accounting Treatment in the Books of Hire Purchaser and Hire Vendor - and practical problems.	12
IV	**Partnership:** The concept of limited liability partnership: Meaning – Objectives features – Merits in conversion of joint stock companies into Ltd. Liability partnership.	12
V	**Cooperative Society Accounting** – (Theory only) Introduction - Need - Registration, Types of Societies, Books of accounts to be maintained, Accounting standards applicable, Types of audit, Provisions of Co-op Societies Act.	12

ReferenceBooks:

1. Tulsian: Financial Accounting - Pearson Education, New Delhi.
2. Ashok and Deepak Sehgal -Advanced Accounting - Taxmann Publications, New Delhi.
3. S. N. Maheshwari & S. K. Maheshwari: Advanced Accountancy –Vikas Publications,
4. Shukla & Grewal: Advanced Accountancy - Vol. -I, S. Chand & Sons, New Delhi.
5. Jain & Narang: Financial Accounting Kalyani Publishers New Delhi.
6. Advanced Accountancy: Arulanandam, Himalaya publishers
7. Introduction to Accountancy: T.S.Grewal, S. Chand and Co.
8. Financial Accounting : Ashok Banarjee, Excel publications
9. B. S. Navi & R. A. Sanadi: Financial Accounting-II, Shriniketan Publications
10. Cooperative Accounting and Auditing : Y. K. Rao, Mittal Publications
11. Cooperative Accounting : M.Kartikeyan and R. Karunakaran

COURSE - DSC-2.4: MODERN MANAGEMENT TECHNIQUES

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To help students to understand the conceptual framework of management and their applicability in industrial and other organizations.

Unit	Topics	No of Periods
I	**Introduction:** Concept and nature - types of managers- responsibilities and skills of professional managers - functions of management - Fayol's Principles of management - Administration vs Management, management process- Levels of management - Challenges of managing 21st century corporations & organizations.	8
II	**Management Functions:** Planning - meaning & Importance, types, Organizing - concept, principles, theories, types of organizations, Authority, responsibility, power, Delegation, Decentralization, Staffing, Directing, Controlling, Coordinating, Control - nature, process & techniques.	12
III	**Human Resources Management:** Meaning, objectives, functions, HRM process, job analysis, job design, recruitment, selection, placement, Training and development, retention of employees, employee morale, performance appraisal.	10
IV	**Setting Up a New Business Enterprise:** Managerial decisions of setting up a new enterprise - Determination of objectives - Discovery of an idea and its preliminary investigation - Pricing of the product-Marketing of the product- Size of business enterprise – Location - Plant and equipment - Plant layout.	10
V	**Office Management:** Meaning, functions of modern office, duties and responsibilities of office manager, Managerial functions on the office - Planning and organization of an office - Controlling office activities - co-ordination - office layout, techniques and objectives of office layout - locations of departments.	10

Reference Books:

1. Ivancevich; Jhon and Micheal T. Matheson; organizational behavior and Management.
2. Koontz Harold, Cyril O' Donnell, and Hienz Weihrich: Essentials of Management, Tata Mc Graw Hill, New York.
3. A. K. Choudhary; Modern Management Techniques, Commonwealth publications
4. S. L. Goel; Modern Management Techniques, Deep and Deep publications
5. Dr. Pankaj Madan and Dr. Ashotosh; Principles and Practice of Modern Management, Global Vision Publishing House.

COURSE - DSC-2.5: MODERN MARKETING MANAGEMENT

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of this course is to familiarize the students with the concepts, dimensions and trends in modern marketing practices.

Unit	Topics	No of Periods
I	**Introduction:** Meaning and Definition - Evolution of Marketing - Marketing Philosophies - Concepts of Marketing - Functions of Marketing - Importance of Marketing-Marketing Mix - Customer Relationship Management - Job Opportunities in Marketing Field - Ethics in Marketing Field.	**10**
II	**Marketing Environment And Buyer Behaviour:** Types of Environments - Demographic, Economic, Natural, Political, Legal and Socio - Cultural Environments - Market Segmentation – Meaning and Definition - Basis of Market Segmentation, Buyer Behaviour – Factors Influencing Consumer Behaviour - Buying Decision Process.	**10**
III	**Marketing Mix:** Meaning and Elements, Product, Product Mix, Product Line, Product Life Cycle, Product Planning, New Product Development- Pricing – Factors Influencing Pricing - Methods of Pricing (meaning) and Pricing Policy, Physical Distribution – Meaning - Factors affecting Channels of distribution - Types of Marketing Channels, Promotion – Meaning and Significance of Promotion-Personal Selling and Advertising.	**10**
IV	**Recent Developments In Marketing:** Introduction - Online Marketing - Direct Marketing - Social Marketing - Green Marketing - Grey Marketing - Mobile Marketing-Market Forces - e-Business Domain - Marketing in Digital Age - Challenges and Suitability of Digital Marketing in India.	**10**
V	**Services Marketing:** Meaning - Nature and Characteristics of Services - Types of Service – Reasons for Growth of Indian Service Scenario-Services Marketing - Products Marketing V/s Services Marketing - Services Gap Model -7 Ps of Services Marketing - Changing Women's Role in Services marketing - Challenges of Services Marketing.	**10**

Reference Books:

1. Philip Kotler – Marketing Management, PHI.
2. Davar: Marketing Management.
3. Rekha. M.P. &Vibha V – Marketing & Services Mgt –VBH.
4. Sunil B. Rao – Marketing & Services Mgt –HPH.
5. Janardhan T.G., Leelavathy AM, Bhagya G.B. – Marketing & Service Management, Kalyani Publications.

COURSE – DSC-2.6: INVESTMENT MANAGEMENT

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To familiarize the students with different investment alternatives, introduce them to the framework of their analysis and valuation and highlight the role of investor protection

Unit	Topics	No. of periods
I	**Investment Environment**: The investment decision process - Types of Investments – Commodities - Real Estate and Financial Assets - the Indian securities market - the market participants and trading of securities - security market indices - sources of financial information - Concept of return and risk - Impact of Taxes and Inflation on return.	12
II	**Fixed Income Securities**: Bond features - types of bonds, estimating bond yields - Bond Valuation types of bond risks - default risk and credit rating. (with practical problems)	12
III	**Approaches to Equity Analysis**: Introductions to Fundamental Analysis - Technical Analysis and Efficient Market Hypothesis - dividend capitalization models - and price-earnings multiple approach to equity valuation. (with practical problems)	12
IV	**Portfolio Analysis and Financial Derivatives**: Portfolio and Diversification - Portfolio Risk and Return - Mutual Funds - Introduction to Financial Derivatives - Financial Derivatives Markets in India (with practical problems)	12
V	**Investor Protection**: Role of SEBI and stock exchanges in investor protection - Investor grievances and their redressal system - insider trading - investors' awareness and activism.	12

Reference Books:

1. C.P. Jones, Investments Analysis and Management, Wiley, 8th edition.
2. Prasanna Chandra, Investment Analysis and Portfolio Management, McGraw Hill Education.
3. R.P. Rustogi, Fundamentals of Investment, Sultan Chand & Sons, New Delhi.
4. N.D. Vohra and B.R. Bagri, Futures and Options, McGraw Hill Education
5. Mayo, An Introduction to Investment, Cengage Learning

COURSE – SEC-2.7: PRACTICALS ON SKILL DEVELOPMENT

Weekly Practical Hours: 2 | Examination Duration: 2 Hours
Credits: 1 | Maximum Marks: 100

Objectives: The objectives of the course is to enable students to learn practical aspects of business functions and help them to improve their knowledge relating to real practices of business in relations to particular functions.

Unit	Topics
I	• Collect the copy of consignment and analyze the different books maintained • Visit a branch, prepare the report on the method of their accounting • Visit a nearby industry and study the process for hire purchase system of their installations • Draft the accounting procedure of conversion of partnership into joint stock company • Visit a nearby cooperative society, list out the books maintained and accounting standards applicable to them.
II	• List out the principles and functions followed by the nearby organizations. • Identify the management values practiced by the organization • Collect the methods/techniques followed by an organization relating to performance appraisal. • List out the contributions of an organization towards society • Draft an advertisement copy for recruitment of candidates for an organization • Identify the requirements of office management and draft a note by selecting any organization.
III	• Study of consumer behavior for a product of your choice • Suggest strategies for development of a product • Identify the product of your choice and describe in which stage of the product digital marketing shall be adopted • Prepare a chart for distribution network for different products • Develop an advertisement copy for a product
III	• Collect capital structure of any five companies and analyze • List out the financial functions of hotel industry • Draft a note on financial sources of small scale industry • Name the 50 companies whose equities are covered under NIFTY, • Collect information on NCFM (National Certification in Financial Market) and prepare a brief report on the same

QUESTION PAPER PATTERN

Maximum Marks: 80 **Exam Duration: 3 Hours**

Section – A (10X2=20)

1. **Answer any ten sub questions, each sub question carries two marks**
   - **a.**
   - **b.**
   - **c.**
   - **d.**
   - **e.**
   - **f.**
   - **g.**
   - **h.**
   - **i.**
   - **j.**
   - **k.**
   - **l.**

Section – B (3X5=15)

Answer any three questions; each question carries five marks (in case of practical papers four problems and one theory question)

2.
3.
4.
5.

Section – C (2X15=30)

Answer any two questions; each question carries fifteen marks (in case of practical papers three problems and one theory question)

6.
7.
8.
9.
10.

Section - D (1X15=15)

Compulsory question (Case study/problems)

11.

QUESTION PAPER PATTERN

Maximum Marks: 40 **Exam Duration: 2 Hours**

Section – A (5X2=10)

1. Answer any five sub questions, each sub question carries two marks
   a.
   b.
   c.
   d.
   e.
   f.
   g.

Section – B (2X5=10)

Answer any two questions; each question carries five marks

2.
3.
4.
5.

Section – C (2X10=20)

Answer any two questions; each question carries ten marks

6.
7.
8.
9.

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF COMMERCE

5th & 6th Semestersw.e.f.

Academic Year 2022-23 and Onwards

Under

CHOICE BASED CREDIT SYSTEM (CBCS)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

Vidyasangama Bhootaramanhatti, Belagavi-591106

COURSE STRUCTURE

Bachelor of Commerce (CBCS)

Regular

(With Effect from Academic Year 2022-23)

	Course Code	Subject and Course	Teaching Hours	Examination Duration	End Semester Examination Marks	IA Marks	Total Marks	Total Credits
FIFTH SEMESTER								
Par-I	DSC 5.1	Management Accounting	4	3	80	20	100	4
	DSC 5.2	Income Tax-I	5	3	80	20	100	4
	DSC 5.3	Cost Accounting	5	3	80	20	100	4
	DSC 5.4	Indian Accounting Standards	4	3	80	20	100	4
Total			**18**	**-**	**320**	**80**	**400**	**16**
Group-I : ACCOUNTING AND TAXATION								
Part-II	DSCAT 5.5	Accounting for Managerial Decisions	5	3	80	20	100	4
	DSCAT 5.6	Goods and Service Tax	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Group – II : FINANCE								
Part-II	DSCF 5.5	Corporate Valuation and Restructuring	5	3	80	20	100	4
	DSCF 5.6	Strategic Working Capital Management	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Group – III : MARKETING								
Part-II	DSCM 5.5	Fundamentals of Rural Marketing	5	3	80	20	100	4
	DSCM 5.6	Advertising and Salesmanship	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Group – IV : INSURANCE AND BANKING								
Part-II	DSCIB 5.5	Fundamentals of Life Insurance	5	3	80	20	100	4
	DSCIB 5.6	Principles of Banking	5	3	80	20	100	4

Total			**10**	**-**	**160**	**40**	**200**	**8**
Part-III	SEC 5.7	Community Services	2	2	40	10	50	1
Part-IV	SEC 5.8	E-Accounting	2	2	40	10	50	2
Total			**4**		**80**	**20**	**200**	**3**
Grand Total (Vth Semester)			**32**		**560**	**140**	**700**	**27**
SIXTH SEMESTER								
Part-I	DSC 6.1	Principles and Practice of Auditing	4	3	80	20	100	4
	DSC 6.2	Income Tax-II	5	3	80	20	100	4
	DSC 6.3	Costing Methods	5	3	80	20	100	4
	DSC 6.4	Indian Financial Institutions and Markets	4	3	80	20	100	4
Total			**18**	**-**	**320**	**80**	**400**	**16**
Group-I : ACCOUNTING AND TAXATION								
Part-II	DSC 6.5	Strategic Cost and Performance Management	5	3	80	20	100	4
	DSC 6.6	Corporate Tax Planning and Management	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Group – II : FINANCE								
Part-II	DSC 6.5	Risk Management and Derivatives	5	3	80	20	100	4
	DSC 6.6	International Financial Management	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Group – III : MARKETING								
Part-II	DSC 6.5	Services Marketing	5	3	80	20	100	4
	DSC 6.6	Consumer Behaviour	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Group – IV : INSURANCE AND BANKING								
Part-II	DSC 6.5	General Insurance Business	5	3	80	20	100	4
	DSC 6.6	Information Technology in Banking	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Part-	SEC 6.7	Enterprise Resource Planning	2	2	40	10	50	1

III	SEC 6.8	Internship Programme	2	-	40	10	50	2
Total			**4**		**80**	**20**	**100**	**3**
Grand Total (VIth Semester)			**32**		**560**	**140**	**700**	**27**

Note:

1. The B.Com curriculum is divided into four parts and contains different courses, The courses have been named after **AECC:** Ability Enhancement Compulsory Course; **DSC:** Discipline Specific Course; **SEC:** Skill Enhancement Course; and **CC&EC:** Co-curricular and Extra-curricular Activities
2. A practical is a 'hands–on class' which allows students to apply the theories learnt in the class room. One hour practical class is equal to one hour theory class and the class is managed by a single teacher. Practical classes may be conducted in the Business Lab or in Computer Lab or in the class room depending on the requirement. Experienced and Competent subject teachers may be allotted the practical workload.
3. IA marks for practical on skill development subject shall be awarded on the basis of practical records submitted by the student and on the basis of internal assessment tests.
4. Co-curricular and Extra-curricular Activities: A student shall opt for one of the following activities offered in the college, in all the four semesters of the undergraduate programme. The activity carries a credit each and will be internally assessed for 50 marks. The activities may include a) N.S.S. / N.C.C b) Sports and Games c) Physical Education or Activities related to Yoga d) Field studies / Industry Inplant Training. e) Community work such as promotion of values of National Integration, Environment, Human rights and duties, Peace, Civic sense etc. f) A Small project work concerning the achievements of India in different fields g) Evolution of study groups/seminar circles on Indian thoughts and ideas. h) Computer assisted/web-based learning and e-library skills Evaluation of Co-curricular and Extra-curricular Activities shall be as per the procedure evolved by the university from time to time.
5. Student shall have to continue with the same elective groups opted in the Fifth Semester to complete the B.Com course.
6. The students of the sixth semester should undergo 10 days intensive training in any organisation for the Internship Program preferably after completion of fifth semester and before commencement of sixth semester examinations. After the training programme they should prepare and submit the report covering functions of the industry and its contributions towards society. The internship programme should carry 50 marks, out of which 40 marks for the brief report on the in-plant training and 10 marks for the internal assessment. The concerned records should be kept in the college/department for at least six months, which should be produced to the university authorities as and when asked.

COURSE - DSC-5.1: MANAGEMENT ACCOUNTING

Weekly Teaching Hours: 4 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: The objective of this course is to enable the students to understand the analysis and interpretation of financial statements with a view to prepare management reports for decision-making.

Units	Topics	No. of Periods
I	**INTRODUCTION TO MANAGEMENT ACCOUNTING:** Meaning and Definition – Objectives – Nature and Scope – Role of Management Accountant - Relationship between Financial Accounting and Management Accounting - Relationship between Cost Accounting and Management Accounting - advantages and limitations of Management Accounting - Management Reporting– Principles of Good Reporting System.	10
II	**ANALYSIS AND INTERPRETATION OF FINANCIAL STATEMENTS:** Meaning of Financial Statements - Features - Objectives - Advantages and Limitations - Types of Analysis - Methods of Financial Analysis - Problems on Comparative Statement analysis - Common Size Statement analysis and Trend Analysis as per Companies Act, 2013 Schedule III formats.	10
III	**CASH FLOW ANALYSIS:** Meaning and Definition of Cash Flow Statement - Concept of Cash and Cash Equivalents - Uses of Cash Flow Statement – Limitations of Cash Flow Statement– Differences between Cash Flow Statement and Fund Flow Statement – Provisions of Ind.AS-7 - Procedure for preparation of Cash Flow Statement - Cash Flow from Operating Activities - Cash Flow from Investing Activities and Cash Flow from Financing Activities - Preparation of Cash Flow Statement according to Ind.AS-7.	10
IV	**RATIO ANALYSIS:** Meaning and Definition of Ratio - Accounting Ratios and Ratio Analysis - Uses and Limitations - Classification of Ratios - Liquidity Ratios - Profitability Ratios and Solvency Ratios.	10
V	**MANAGEMENT REPORTING SYSTEM:** Meaning and definition of Management Reporting - Requisites of a good reporting system - Principles of good reporting - Kinds of reports - Drafting of reports by management accountant under different situations.	10

Reference Books:

1. Dr. S.N. Maheshwari, Management Accounting, Vikas Publishers.
2. S. C. Saxena, Management Accounting,
3. Dr. S.N. Goyal and Manmohan, Management Accounting,
4. B.S. Raman, Management Accounting, United publishers
5. Sharma and Gupta, Management Accounting, Kalyani Publishers
6. M Muniraju & K Ramachandra, Management Accounting, HPH
7. PN Reddy & Appanaiah, Essentials of Management Accounting, HPH
8. Dr. B Mariyappa , Management Accounting, HPH
9. Sudhindra Bhat- Management Accounting

COURSE - DSC-5.2: INCOME TAX-I

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: The objective of this course is to expose the students to the various provisions of Income Tax Act relating to computation of Income of individual assesses.

Units	Topics	No. of Periods
I	**INTRODUCTION TO INCOME TAX:** Brief History of Indian Income Tax - Legal Frame Work - Types of Taxes - Cannons of Taxation - Important Definitions: Assessment, Assessment Year, Previous Year (including Exceptions), Assessee, Person, Income, Casual Income, Gross Total Income - Scheme of taxation: Meaning and classification of Capital & Revenue - Income tax authorities: Powers & functions of CBDT - CIT & A.O.	10
II	**EXEMPTED INCOMES:** Introduction - Exempted Incomes u/s 10 applicable to Individual Assessees - Agricultural Income: Definition - Scheme of Partial Integration (Theory only)	6
III	**RESIDENTIAL STATUS AND INCIDENCE OF TAX:** Determination of Residential Status of Individual assessees - Incidence of Tax. Problems.	8
IV	**INCOME FROM SALARY:** Meaning and Definition – Basis of Charge – Advance Salary –Arrears of Salary – Allowances - Perquisites - Provident Fund - Profits in Lieu of Salary - Voluntary Retirement – Compensation - Retrenchment Compensation - Gratuity - Commutation of Pension - Encashment of Earned leave - Deductions from Salary u/s 16 - Problems on computation of taxable Income from Salary.	24
V	**INCOME FROM HOUSE PROPERTY:** Basis of Charge - Deemed Owners - Exempted House Property Income - Composite Rent – Annual Value - Determination of Annual Value - Treatment of Unrealized Rent - Loss due to Vacancy - Deductions from Annual Value u/s 24 - Problems on computation of taxable Income from House Property.	12

Reference Books:

1. Dr. Vinod K. Singhania: Direct Taxes – Law and Practice, Taxmann publication.
2. B.B. Lal: Direct Taxes, Konark Publisher (P)ltd.
3. Dr. Mehrotra and Dr. Goyal: Direct Taxes – Law and Practice, Sahitya Bhavan Publication.
4. Dinakar Pagare: Law and Practice of Income Tax, Sultan Chand and sons.
5. Gaur & Narang: Income Tax.
6. 7 Lectures – Income Tax – I,VBH
7. Dr.V.Rajesh Kumar and Dr.R.K.Sreekantha: Income Tax – I, Vittam Publications.

COURSE - DSC-5.3: COST ACCOUNTING

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of this course is to familiarize the students with the cost accounting concepts and their applicability in organizations for the purpose of decision making on cost reduction and efficiency improvement.

Units	Topics	No. of Periods
I	**INTRODUCTION TO COST ACCOUNTING:** Meaning – Nature – Objectives – Functions – Significance - Difference between Cost Accounting and Financial Accounting - Various Elements of Cost and Classification of Cost - Cost object - Cost unit - Cost driver - Use of IT in Cost Accounting; Limitations of Cost Accounting; **Cost Sheet:** Meaning and Cost heads in a Cost Sheet, Presentation of Cost Information in Cost Sheet/Statement - Problems on Cost Sheet - Tenders and Quotations.	14
II	**MATERIALS COST:** Meaning - Importance and Types of Materials – Direct and Indirect Material; Materials procurement**:** Procedure for procurement of materials and documentation involved in procurement of materials -Material Storage and Records: Duties of Store keeper, Store records; Material Issues and Valuation: Procedure for material issues - Valuation of material issues - preparation of Stores Ledger/Account -FIFO, LIFO, Simple Average Price and Weighted Average Price Methods - Problems. EOQ, ABC Analysis, FSN Inventory, VED Inventory, HML Inventory, Physical Control-KANBAN, JIT (concepts only).	12
III	**EMPLOYEE COST:** Meaning – Components - Classification and Importance of Employee (Labour) Cost in Organizations; Time keeping and Time booking - Idle time - Causes and Treatment of Normal and Abnormal Idle time – Overtime - Causes and Treatment (Theory Only); Causes and effects of Employee Turnover - Methods of Remuneration (Payment of Wages and Incentives) Problems on calculation of earnings under Time Rate (Straight Time Rate, Halsey and Rowan Methods) and Piece Rate Systems (Straight Piece Rate and Taylor's Differential Piece Rate only)	8
IV	**OVERHEADS:** Meaning and Classification of Overheads; Accounting and Control of Manufacturing Overheads: Estimation and Collection, Cost Allocation, Apportionment, Re-apportionment and Absorption of Manufacturing Overheads; Problems on Primary and Secondary distribution using Reciprocal Service Methods (Repeated Distribution Method and Simultaneous Equation Method); Absorption of Overheads: Meaning and Methods of Absorption of Overheads; Problems on Machine Hour Rate.	14
V	**RECONCILIATION OF COST AND FINANCIAL ACCOUNTS**: Reasons for differences in Profits under Financial and Cost Accounts; Procedure for Reconciliation - Ascertainment of Profits as per Financial Accounts and Cost Accounts and Reconciliation of Profits of both sets of Accounts - Preparation of Reconciliation Statement - Problems.	8

Reference Books:

1. Jain and Narang. Cost Accounting, Kalyani Publication House
2. M.N Arora Cost Accounting ,HPH
3. M.V. Shukla – Cost and Management Accounting
4. N.K. Prasad: Cost Accounting, Books Syndicate Pvt. Ltd.
5. Dr. V Rajeshkumar, Dr. R K Srikanth – Cost Accounting MHE India
6. Ratnam, Cost Accounting -Kitabmahal
7. P C Tulsian, Cost Accounting – MHE India
8. Nigam & Sharma: Cost Accounting, HPH
9. Dr. B. Mariyappa: Cost Accounting HPH
10. Khanna, Ahuja & Pandey – Practical Costing - S Chand & Co. Ltd.
11. B.S. Raman, Cost Accounting. United Publisher
12. V. A. Patil & B. S. Navi; Cost Accounting-I, S.Chand & Co. Ltd.
13. Ravi M. Kishore – Cost Management –Taxmann.

COURSE - DSC-5.4: INDIAN ACCOUNTING STANDARDS

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of the subject is to enable the students to understand the need and method of presentation of financial statements in accordance with IFRS, which makes the students to acquire knowledge about various IndAS.

Units	Topics	No. of Periods
I	**ACCOUNTING STANDARDS:** Meaning of Accounting Standards - Need for Accounting Standards - Significance or advantages of Accounting Standards - Limitations of Accounting Standards - Orientation to International Accounting Standards and International Financial Reporting Standards - Accounting Standards in Indian Context - Introduction to Indian Accounting Standards (Ind AS). Accounting Bodies. Procedure for issuing Accounting Standards by the Accounting Standards Board	8
II	**PREPARATION OF FINANCIAL STATEMENTS AS PER IND AS:** Framework for preparation of financial statements - Presentation of Financial Statements as per Ind AS 1: Statement of Profit and Loss - Balance Sheet - Statement of Changes in Equity - Statement of Cash Flows and Notes to Accounts; Problems on preparation of Statement of Profit & Loss and Balance Sheet.	10
III	**PROVISIONS UNDER ACCOUNTING STANDARDS FOR ITEMS APPEARING IN FINANCIAL STATEMENTS:** Revenue Recognition (Ind. AS 18); Valuation of Inventory (Ind AS 2); Property - Plant and Equipment - including Depreciation (Ind AS 16); Borrowing Cost (Ind AS 23);Intangible Assets (Ind. AS 38); Provisions (Ind AS 37); Earnings per Share (Ind AS 33).	12
IV	**PROVISIONS UNDER ACCOUNTING STANDARDS FOR ITEMS THAT DO NOT APPEAR IN FINANCIAL STATEMENTS:** Segment Reporting (Ind. AS 108), Related Party Disclosures (Ind AS 24), Events occurring after Balance Sheet Date (Ind. AS 10), Interim Financial Reporting (Ind AS 34)	10
V	**GROUPING OF ACCOUNTS:** Meaning of Group - Holding and Subsidiary Company - Purpose and benefits of preparing Consolidated Financial Statements - Requirements of Companies Act, 2013 in respect of Consolidation of Financial Statements - Components of Consolidated Financial Statements - Calculation of Non controlling Interest - Calculation of Goodwill or Capital Reserve on Consolidation; Accounting treatment for inter-company debts - unrealized profit on stock.	10

Reference Books:

1 IFRS - Student Study Guide - ISDC
2 IFRS for India, Dr. A. L. Saini, Snow White Publications
3 Roadmap to IFRS and Indian Accounting Standards by CA Shibarama Tripathy
4 IFRS Explained - A Guide to IFRS by BPP Learning Media
5 IFRS Concepts and Applications by Kamal Garg, Bharath Law House Private Limited.
6 IFRS: A Quick Reference Guide by Robert J Kirk, Elsevier Ltd.
7 IFRS, Barry Larking, Taxman Publications
8 Anif & Mukherjee, Corporate Accounting, Mc Graw Hill Publishers.
9 Anil Kumar, V. Rajesh Kumar and B. Mariyappa, Indian Accounting Standards, Himalaya Publishing House
10 Miriyala, Ravikanth, Indian Accounting Standards Made Easy, Commercial Law Publishers.
11 Study material of the Institute of Chartered Accountants of India (ICAI), The Institute of Cost and Management Accountants of India (ICMAI), and The Institute of Company Secretaries of India (ICSI) – [Freely downloadable from the websites of respective institutions].

COURSE – DSCAT-5.5: ACCOUNTING FOR MANAGERIAL DECISIONS

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours

Credits: 3 | Maximum Marks: 100

Objective: To develop among learners, an understanding of the various tools and techniques for controlling and reducing cost, and enable effective decision making.

Units	Topics	No. of Periods
I	**COST CONTROL AND COST REDUCTION:** Cost Management - Components of Cost Management - Cost Control and Cost Reduction - Areas of Cost Control and Cost Reduction - Overview of Tools and Techniques for Cost Control and Cost Reduction.	10
II	**MARGINAL COSTING:** Basic concepts of marginal costing - Contribution Margin - Break-even Analysis - Break-even and profit-volume charts - Contribution to Sales Ratio - Margin of Safety - Angle of Incidence - Cost-volume-profit - Multi-product break-even analysis - Key (Limiting) factor.	12
III	**SHORT-TERM DECISION MAKING:** Determination of cost / price of a product / service under marginal costing method - Determination of cost of finished goods and work-in-progress - Comparison of marginal costing with absorption costing methods and reconciliation - Short-term decision making - Make or Buy - Profitable Product Mix - Addition of a new product or line, - Discontinuing an existing product or line.	12
IV	**STANDARD COSTING:** Setting up Standards - Types of Standards - Standard Costing as a method of performance measurement - Calculation and reconciliation of cost variances - Material Cost Variance - Employee Cost Variance - Variable Overhead Variance and Fixed Overhead Variance.	12
V	**BUDGETARY CONTROL:** Meaning of Budget - Essentials of Budget - Budget Manual - Budget Setting Process - Preparation of Budget and Monitoring Procedures - Use of Budget in Planning and Control - Flexible Budget - Preparation of Functional Budget for operating and non-operating functions - Cash budget - Master Budget - Introduction to principal / key budget factor - Zero Based Budgeting (ZBB) - Performance Budget - Control Ratios and Budget Variances.	14

Reference Books:

1. V Rajesh Kumar and R K Sreekantha, "Cost Management", MHE India
2. Guptha, Sachin, Cost and Management Accounting, Taxman Publications
3. Keswani, Sunil, Cost and Management Accounting, Bharat Law House Pvt. Ltd.
4. Kalra, Ashish, Cost and Management Accounting, IGP Publications.
5. Study material of the Institute of Chartered Accountants of India (ICAI), The Institute of Cost and Management Accountants of India (ICMAI), and The Institute of Company Secretaries of India (ICSI) - [Freely downloadable from the websites of respective institutions]

COURSE – DSCAT - 5.6: GOODS AND SERVICE TAX

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: To impart students with knowledge of tax, types and their modalities, to give insight on the taxes influencing a corporate entity – both direct and indirect, and to orient the students on the procedures and formalities to be adhered, with regard to tax matters.

Units	Topics	No. of Periods
I	**INTRODUCTION TO GST:** Meaning of Tax and Types - Differences between Direct and Indirect Taxation - Brief History of Indirect Taxation in India - Structure of Indian Taxation - Rationale for transitions to GST.	10
II	**GST FRAMEWORK:** Introduction to Goods and Services Tax - Constitutional Framework - Orientation to CGST, SGST and IGST - Meaning and Scope of Supply - Types of Supply - Exemptions from GST - GST terminologies and definitions.	10
III	**TIME, PLACE AND VALUE OF SUPPLY:** Time of Supply in case of Goods and Services - Problems on ascertaining Time of Supply - Place of Supply in case of Goods and Services (both General and Specific Services) - Problems on Identification of Place of Supply; Value of Supply - Meaning - Inclusions and Exclusions - Problems on calculation of 'Value of Supply'	12
IV	**GST LIABILITY AND INPUT TAX CREDIT:** Rates of GST - Classification of Goods and Services and Rates based on classification - Problems on computation of GST Liability - Input Tax Credit – Meaning - Process for availing Input Tax Credit - Problems on calculation of Input Tax Credit and Net GST Liability.	14
V	**GST PROCEDURES:** Registration under GST - Tax Invoice - Levy and Collection of GST - Composition Scheme - Due dates for Payment of GST - Accounting record for GST - Features of GST in Tally Package - GST Returns - Types of Returns - Monthly Returns - Annual Return and Final Return - Due dates for filing of returns. Final Assessment - Accounts and Audit under GST.	14

Reference Books:

1. V Rajesh Kumar and Mahadev, "Indirect Taxes", McGraw Hill Education
2. Datey, V S, "Indirect Taxes", Taxmann Publications.
3. Hiregange et al, "Indirect Taxe", Puliani and Puliani.
4. Haldia, Arpit, "GST Made Easy", Taxmann Publications.
5. Chaudhary, Dalmia, Girdharwal, "GST – A Practical Approach", Taxmann Publications.
6. Garg, Kamal, "Understanding GST", Bharat Publications.
7. Hiregange, Jain and Naik, "Students Handbook on GST", Puliani and Puliani.

COURSE - DSCF-5.5: CORPORATE VALUATION AND RESTRUCTURING

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To provide knowledge on valuation of business enterprises and make students to understand the various models of value-based management and give insight on various forms of corporate restructuring.

Units	Topics	No. of Periods
I	**INTRODUCTION AND FUNDAMENTAL TOOLS OF FINANCE:** Meaning of Financial Management - Goals of Financial Management - Analysis of Financial Statements - DU PONT ANALYSIS; Time Value of Money - Compounding, Discounting, Annuity and Perpetuity; Weighted Average Cost of Capital - CAPM based calculation; Beta - Un-levering and Re-levering.	8
II	**CORPORATE VALUATION:** Valuation of Firm and Valuation of Equity - Net Assets Method - Earnings Capitalization Method - Relative Valuation - Chop Shop Method; Discounted Cash Flow (DCF) Method - Adjusted Present Value (APV) Method; ICAI Valuation Standards.	20
III	**VALUE BASED MANAGEMENT:** Marakon Approach - Alcar Approach – Mc-Kinsey Approach - Stern-Stewart Approach (EVA Method) and BCG Approach - Performance Measurement and Analysis - Balanced Scorecard.	10
IV	**CORPORATE RESTRUCTURING:** Corporate Restructuring - Forms of Corporate Restructuring - Asset Restructuring – Securitization - Sale and Lease; Financial Restructuring - Designing and re-designing capital structure; Restructuring of companies incurring continuous losses - restructuring in the event of change in law - Buy-back of shares.	8
V	**BUSINESS COMBINATIONS:** Mergers and Acquisitions - Meaning and differences - Financing of merger (deciding between merger and acquisition) - Determining share Exchange ratio, net asset value, EPS and market price approach - Range and Terms - Feasibility of Mergers and Acquisitions.	10

Reference Books:

1. V. Rajesh Kumar, Strategic Financial Management, Mc Graw Hill Education.
2. Prasanna Chandra, Corporate Valuation and Value Creation, Mc Graw Hill Education.
3. Pattabhiram and Bala, Strategic Financial Management, Snow White Publications.
4. Sridhar A N, Strategic Financial Management, Shroff Publishers and Distributors.
5. Damodaran, Aswath, Damodaran on Valuation, John Wiley.
6. Kishore, Ravi M, Strategic Financial Management, Taxman Publications.
7. Gupta J B, Strategic Financial Management, Taxman Publications.
8. Copeland, Tom, Koller, Tim and Murrin, Jack, "Valuation – Measuring and Managing the Value of Companies", McKinsey Quarterly, Wiley Finance.
9. Weaver, Samuel and Weston, Fred; "Strategic Corporate Finance" South-Western CENGAGE Learning.
10. Allen, David, "An Introduction to Strategic Financial Management – The Key to Long Term Profitability",
11. The Chartered Institute of Management Accountants, Kogan Page. www.valuebasedmanagement.net
12. Study material of the Institute of Chartered Accountants of India (ICAI), The Institute of Cost and Management Accountants of India (ICMAI), and The Institute of Company Secretaries of India (ICSI) – [Freely downloadable from the websites of respective institutions].

COURSE - DSCF-5.6: STRATEGIC WORKING CAPITAL MANAGEMENT

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To orient the students on the estimation of working capital requirements of various types of entities and provide knowledge on managing the components of working capital.

Units	Topics	No. of Periods
I	**INTRODUCTION AND ESTIMATION:** Working Capital - meaning and types; Meaning of Working Capital Management - Meaning and Scope - Estimation of Working Capital Requirement - Need for adequate working capital - Factors influencing working capital requirements - Methods for estimation of Working Capital requirement - Regression method - Operating or cash cycle method and Policy method - Problems on estimation of working capital.	10
II	**FINANCING OF WORKING CAPITAL:** Sources of Working Capital - Trade credit - Loans from banks and financial institutions (Maximum Permissible Bank Finance - concept and problems) - Loan from indigenous bankers - Advances from customers - Accrued expenses - Commercial papers - Debt securitization -Factoring of Receivables and Forfeiting; Factors influencing choice of short-term source of funds - Problems on calculation of cost of each source - Approaches to working capital financing - Matching Approach - Conservative Approach and Aggressive Approach - Problems on approaches to working capital financing.	8
III	**MANAGEMENT OF INVENTORY:** Meaning of Inventory - Inventory Control - objectives - advantages; costs associated with inventory control - scope or areas of inventory control - Procurement of Material - Make or Buy Decision - Purchasing Process, Vendor Selection - Ordering Quantity and Frequency (EOQ) - Manufacturing Quantity and Frequency (EMQ) - Documents relating to procurement of materials - Problems on calculation of EOQ and EMQ; Stores Control - Classes or Types of Stores - Method of Storing - Stock Levels - Classification and codification of material - stock verification - Duties and responsibilities of Stores Manager - Records and documents relating to Stores - Problems on calculation of Stock Levels - Management of Issues - Methods of pricing issues - Ratios relevant to Inventory Control - Problems on Issue of Material.	10
IV	**MANAGEMENT OF RECEIVABLES AND PAYABLES:** Objectives or Purpose of Receivables Management - Costs associated with Receivables; Scope of Receivables Management - Credit Standards - Credit Period - Cash Discount and Collection Efforts - Tools and Techniques for Managing Receivables - Credit Analysis - Risk Classification - Probability Analysis or Decision Tree Analysis - Cost-	20

	benefit Analysis - Ageing schedule - Collection Matrix and Factoring - Problems. **Management of payables:** Introduction - Costs associated with Trade credit - Scope of management of payables - whether to avail credit facility from suppliers or not? Whether to seek extension of credit period or not?, whether to avail discount offer or not?. Problems.	
V	**TREASURY AND CASH MANAGEMENT:** Motives for holding Cash – Transaction - Precautionary and Speculative; Objectives of Cash Management - Costs associated with Cash - Scope of Cash Management - Estimation of Cash Requirement - Managing Cash Inflows - Managing Cash Outflows - Maintenance of Optimal / Ideal Cash Balance; Tools or Techniques for Effective Cash Management - Cash Budget - Invoicing Policy - Concentration Banking - Lock-box System - Playing the Float - Baumol's Model - Miller-Orr Model - Problems - Developments in Cash Management - Electronic Fund Transfer - Virtual Banking - Zero Balance Account - Petty Cash Imprest System etc.	12

Reference Books:

1. Prasanna Chandra, Financial Management – Theory and Practice, Mc Graw Hill Education
2. I M Pandey, Financial Management, Vikas Publications
3. Khan M Y and Jain P K, Financial Management – Text, Problems and Cases, Mc Graw Hill Education
4. V Rajesh Kumar, Financial Management, Mc Graw Hill Education
5. Damodaran, Aswath, Corporate Finance , John Wiley & Sons Inc
6. Damodaran, Aswath, Applied Corporate Finance, John Wiley & Sons Inc
7. Kishore, Ravi M, Financial Management – Problems and Solutions, Taxman Publications
8. Bodhanwala, Ruzbeh, Financial Management using Excel Spreadsheet, Taxman Publications
9. Bahal, Mohit, "Practical Aspects of Financial Management", Suchita Prakashan (P) Ltd.
10. Sharma, Dhiraj, "Working Capital Management – A conceptual Approach", Himalaya Publishing House.
11. Study material of the Institute of Chartered Accountants of India (ICAI), The Institute of Cost and Management Accountants of India (ICMAI), and The Institute of Company Secretaries of India (ICSI) – [Freely downloadable from the websites of respective institutions]

COURSE - DSCM-5.5: FUNDAMENTALS OF RURAL MARKETING

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: To create awareness about the process of marketing in the rural area and help to understand the working of rural marketing institutions with different issues.

Units	Topics	No. of Periods
I	**INTRODUCTION TO RURAL MARKETING:** Meaning, definition, concept, nature, scope, significance of rural marketing - factors contributing to growth of rural markets - components and classification of rural markets - rural market v/s urban market - electronic rural market.	12
II	**AGRICULTURAL MARKETING:** Meaning, definition, concept, nature and types of agriculture produce - concept and types of agricultural markets - marketing channels - methods of sales - market functions.	12
III	**MARKETING MIX FOR RURAL MARKETING:** Product planning for rural products - pricing methods and strategies for products of rural markets - products management in rural markets.	12
IV	**CHANNELS OF DISTRIBUTION:** Distribution pattern and methods in rural markets - special characteristics of rural channels - channel management in rural markets - managing physical distribution in rural markets - storage warehousing and transportation.	12
V	**ISSUES IN RURAL MARKETING:** Rural consumer behavior – features - factors influencing lifestyle of rural consumer - FMCG sector in rural India - concept and classification of consumer goods - marketing channels for FMCG - fast growing FMCG - marketing of consumer durables - role of advertising.	12

Reference Books:

1. Badi R.V. Badi N.V: Rural Marketing, Himalaya Publishing House-2010
2. Acharya S.S Agarawal N.L: Agriculture Marketing In India, Oxford and IBH Publishing Company Pvt. Ltd
3. Marketing Management, planning, implementation and control – Rama Swamy and NamaKumar, Mernillan.
4. Marketing management by C.N Sontakki, Kalyani Publishers

COURSE - DSCM-5.6: ADVERTISING AND SALESMANSHIP

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To familiarize the students regarding advertising and various dimensions of salesmanship and career opportunities available in these fields.

Units	Topics	No. of Periods
I	**INTRODUCTION TO ADVERTISING:** Definition of Advertising – History of Advertising - Roles of Advertising – Functions of Advertising – Key players in Advertising – Types of Advertising – Steps in development of Advertising.	10
II	**ADVERTISING DESIGN:** Advertising Design - Advertising Theory - Types of Advertising Appeals - Structure of an Advertisement - Message Strategies - Cognitive strategies - Exceptional Strategies - Creating an Advertising - Advertising Effectiveness.	10
III	**COPYWRITING:** Meaning and definition of Copywriting – The Copywritr – Copywriting for Print – Copywriting guidelines – Radio of Copywriting – TV Copywriting – Writing for the Web – Tips for writing good web content.	8
IV	**SALESMANSHIP:** Meaning and Definition of Salesmanship - Features of Salesmanship - Scope of Salesmanship - Modern Concept of Salesmanship - Utility of Salesmanship - Elements of Salesmanship - Art or Science Salesmanship – Professional Qualities of Salesman - Psychology of Salesmanship; Attracting Attention - Awakening Interest - Creating Desire and Action.	12
V	**PROCESS OF SELLING:** Stages in Process of Selling – (i) Pre-Sale Preparations (ii) Prospecting (iii) Pre-Approach (iv) Approach (v) Sales Presentation (vi) Handling of Objections (vii) Close (viii) After Sales Follow-up.	10

Reference Books:

1. Dawar S.R --Salesmanship and Advertisement, S. Chand
2. Cummins. J-Sales Promotion—Prentice Hall India
3. Birth and Boyd-New patterns in Sales Management-Mc Graw Hill
4. Debbie Gillialand-Marketing—Mc Graw Hill.
5. Marketing Management Philip Kotler Pearson Publication.
6. Marketing Management RajanSaxena McGraw Hill Education.
7. Principles of Marketing Philip Kotler Pearson Publication

COURSE - DSCIB-5.5: FUNDAMENTALS OF LIFE INSURANCE

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To acquaint students about the principles of managing and administration of insurance business.

Units	Topics	No. of Periods
I	**INTRODUCTION TO LIFE INSURANCE:** Introduction to Life Insurance - Features of Life Insurance, Procedure of taking a Life Insurance Policy- Principles of Life Insurance - Kinds of Life Insurance Policies, Whole Life policies, Endowment policies and Term policies, Annuities - Annuities - Life Insurance Underwriting - Need for Selection - Factors affecting Rate of Mortality - Sources of Data - Concept of Extra Mortality - Numerical Methods of Undertaking and Occupational Hazards.	10
II	**POLICY CONDITIONS AND PREMIUM:** **Policy Conditions:** Conditions relating to commencement of Risk, Riders, Conditions of Premium, Conditions relating to continuation of policies, Nomination and Assignment, Paidup Value, Surrender Value. **Insurance Premium:** Types of Premium, Factors affecting the premium of Life Insurance policies, Methods of premium computation, Natural Premium Plan, Level Premium Plan, Mortality Table, Sources of Mortality information and construction of mortality tables. **Valuation, Surplus and Bonus:** Objects of valuation, Sources of surplus, Bonus and its kinds.	12
III	**LEGAL ASPECTS OF LIFE INSURANCE**: Legal Aspects of Insurance - Indian Contract Act, Special Features of Insurance Contract; Insurance Laws, Insurance Act, LIC Act, and IRDA Act.	14
IV	**CLAIM MANAGEMENT AND RE-INSURANCE**: Claim Management - Claim Settlement - Procedure for settlement of maturity claims - Procedure for death claims - Legal Framework - Third Party Administration - Insurance Ombudsman - Consumer Protection Act.	12
V	**RISK MANAGEMENT AND INSURANCE:** Basic concept of risk, Types of business risk, Assessment and transfer, Basic principles of utmost good faith, Indemnity, Economic function, Proximate cause, Subrogation and contribution, Risk and return relationship, Need for coordination. Power, functions and Role of IRDA, Online Insurance	12

Reference Books:

1. Annie Stephen L, HPH
2. P. Perya Swamy, Principles and Practice of Life Insurance
3. Raman B, Your Life Insurance, Hand Book
4. William C. Arthur, Risk Management and Insurance
5. G. Krishna Swamy, A Text book on Principles and Practices of Life Insurance
6. Gopal Krishnan, Liability Insurance
7. Aramvalarthan, Risk Management I.K. Intl
8. Mishra M.N, Insurance Principles and Practice
9. Agarwal, O.P., *Banking and Insurance*, Himalaya Publishing House
10. Arthur, C. and C. William Jr., *Risk Management and Insurance*, McGraw Hill

COURSE - DSCIB-5.6: PRINCIPLES OF BANKING

Weekly Teaching Hours: 5
Credits: 3

Examination Duration: 3 Hours
Maximum Marks: 100

Objective of the Course: To acquaint the students with the fundamentals of banking and understand the real time banking practices..

Units	Topics	No. of Periods
I	**INTRODUCTION TO BANKING:** Origin of banking - definition - banker and customer relationship - General and special types of customers -Types of deposits - Origin and growth of commercial banks in India - Financial Services offered by banks - Changing role of commercial banks - Types of banks.	12
II	**BANKER AND CUSTOMER**: Introduction - Meaning and Definition of Banker and Customer - General and Special relationship between Banker and Customer - Special types of Customers - Minor, Joint Account, Partnership, Joint Stock Company, Trustee, Clubs and Associations.	10
III	**BANKING OPERATIONS:** Collecting Banker – Meaning, Duties and Responsibilities of Collecting Banker, Holder for Value, Holder in Due Course, Statutory Protection to Collecting Banker; Paying Banker – Meaning, Precautions, Statutory protection to the Paying Banker, New Technology in Banking, e-Services, Debit and Credit Cards, Internet Banking, ATM, Electronic Fund Transfer, MICR, RTGS, NEFT, DEMAT. e– Banking, Core Banking and Mobile Banking.	14
IV	**TYPES OF ACCOUNTS AND LENDING OF FUND**: Savings Bank Account - Current Account and Fixed Deposit Account – Features - Procedure for opening these Accounts; Lending of Funds - Principles of Bank Lending - Secured vs. unsecured advances - types of Loans, Overdrafts, Discounting of Bills, Cash Credit - Advances against various securities.	12
V	**NEGOTIABLE INSTRUMENTS**: Introduction - Meaning and Definition – Features - Kinds of Negotiable Instruments - Meaning, Definition and Features of Promissory Notes - Bills of Exchange and Cheques; Crossing of Cheques - Types of Crossing - Material Alteration - Endorsements - Meaning, Essentials and Kinds of Endorsement.	12

Reference Books:

1. Gordon and Natarajan, Banking Theory Law and Practice, HPH
2. S. P Srivastava, Banking Theory and Practice, Anmol Publications
3. Tandan M.L, Banking Law and Practice in India, Indian Law House
4. Sheldon H.P, Practice and Law of Banking
5. K. Venkataramana, Banking Operations, SHBP
6. Kothari N. M, Law and Practice of Banking
7. Neelam C Gulati, Principles of Banking Management
8. Maheshwari. S.N, Banking Law and Practice, Vikas Publication
9. Shekar. K.C, Banking Theory Law and Practice, Vikas Publication
10. Dr. Alice Mani, Banking Law and Operation, SBH
11. Satyadevi, C., *Financial Services Banking and Insurance*, S.Chand
12. Suneja, H.R., *Practical and Law of Banking*, Himalya Publishing House
13. Chabra, T.N., *Elements of Banking Law*, Dhanpat Rai and Sons
14. Saxena, G.S; *Legal Aspects of Banking Operations*, Sultan Chand and Sons
15. Varshney, P.N., *Banking Law and Practice*, Sultan Chand and Sons

COURSE - SEC-5.7: COMMUNITY SERVICES

Weekly Teaching Hours: 2 | Examination Duration: 2 Hours

Credits: 1 | Maximum Marks: 50

Objective: To enable the students' to learn and develop the skills by involving in the community services.

After the completion of the IV Semester, students should be assigned COMMUNITY SERVICE and it shall be monitored by Mentors. Allocation of the students shall be made to each Mentor. In addition to Commerce faculty, faculty from Languages including English, Additional Subjects, Librarian, and Physical Education Director shall also be appointed as Mentors. The Community Service may be carried out in any type of Non-profit Organisations such as Panchayat Raj Institutions, Public Hospitals, Old Age Homes, Orphanage Houses, Sports Clubs, Women's organisations, Neighbourhood organisations, Religious and Educational organisations, Red Cross, Lions Club, Rotary Clubs, Youth Service Associations, or in any other social service organisation. Minimum of 10 days field service must be ensured. The Report on Community Service shall be submitted 10 days before the commencement of Vth Semester examinations. The Report shall consist of Organisation's Profile, Nature of Service and Experience of the Student, along with Certificate from the Organisation in about 25 pages. The related Marks & Credit will be awarded based on the report.

COURSE - SEC-5.8: E-ACCOUNTING

Weekly Teaching Hours: 2 Examination Duration: 2 Hours

Credits: 2 Maximum Marks: 50

Objective: The objective of the subject is to familiarize the students with Tally.

Units	Topics	No. of Periods
I	**GETTING STARTED WITH TALLY:** Meaning of Tally software – Features - Advantages – Required Hardware - Preparation for Installation of Tally Software – Installation - Items on Tally screen: Menu Options, Creating a New Company, Basic Currency Information, Other Information, Company Features and Inventory Features.	10
II	**CONFIGURING TALLY:** General Configuration, Numerical Symbols, Accounts/Inventory Information – Master Configuration – Voucher Entry Configuration. Working in Tally: Groups - Ledgers, Writing Voucher, Different types of Voucher - Voucher Entry - Problem on Voucher Entry -Trial Balance - Accounts Books, Cash Book - Bank Books, Ledger Accounts - Group Summary - Sales Register and Purchase Register - Journal Register Statement of Accounts & Balance Sheet	10
III	**REPORTS IN TALLY:** Generating Basic Reports in Tally – Financial Statements – Accounting Books and Registers – Inventory Books and Registers – Exception Reports – Printing Reports –Types of Printing Configuration of Options - Printing Format.	10

Reference Books:

1. Raydu – E Commerce, HPH
2. Suman. M – E Commerce & Accounting –HPH
3. Kalakota Ravi and A. B. Whinston: Frontiers of Electronic Commerce, Addison Wesley
4. Watson R T: Electronic Commerce – the strategic perspective. The Dryden press
5. Amrutha Gowry & Soundrajana, E – Business & Accounting, SHBP.
6. Agarwala K. N & Deeksha Ararwala: Business on the Net – Bridge to the online store front, Macmillan, N. Delhi.
7. P. Diwan / S. Sharma – E –Commerce
8. Srivatsava: E.R.P, I.K. International Publishers
9. Diwan, Prag and Sunil Sharma, Electronic Commerce – A manager guide to E-business, Vanity Books International.
10. Tally for Enterprise Solutions.

COURSE – DSC-6.1: PRINCIPLES AND PRACTICE OF AUDITING

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: This course aims at imparting knowledge about the principles and modern auditing techniques and their applications.

Unit	Topics	No. of periods
I	**INTRODUCTION TO AUDITING:** Meaning, definition objectives, difference between accountancy and auditing. Types of audit. Preparation before commencement of new audit- Audit note book, Working papers, audit programme, recent trends in auditing. Nature and significance of GST Audit, cost audit, tax audit and Management audit.	10
II	**PLANNING AND INTERNAL CHECK:** Auditor- Meaning, Definition, Qualification, Qualities and duties of Auditor. Internal control- Meaning, definition, Internal check- Meaning, objectives and fundamental principles. Internal check as regard- wage payment, cash sales, cash purchase. Internal Audit- Meaning, Advantages and disadvantages, difference between internal check and internal audit.	10
III	**VOUCHING:** Meaning, Definition, Importance, Routine checking and vouching- Voucher- Types of vouchers, vouching of receipts- Cash sales receipts from debtors. Proceeds of sale of investments. Vouching of payment- cash purchase, Payment to creditors. Revenue Expenditure.	10
IV	**VERIFICATION AND VALUATION OF ASSETS AND LIABILITY:** Meaning and objectives of verification and valuation of Assets-Land and Building, Plant and Machinery, Goodwill, investment, stock in trade. Liabilities-Bills Payable, Sundry Creditors, Contingent Liability. Errors in Audit.	10
V	**REPORT WRITING:** Meaning, Structure, Types of Audit Reports – Qualified and Clean Audit Report, routine reports and special reports, Professional Ethics of Auditors.	10

Reference Books:

1. R.G.Saxena: Practical Auditing, Himalaya Publications
2. Kamal Gupta: Contemporary Auditing
3. Spicer & Pegler: Practical auditing
4. Jagdish Prakash: Principles and Practices of Auditing
5. Ghatalia: Principles of Auditing
6. N.D.Kapoor: Auditing
7. T.N.Tandon: Practical Auditing
8. Dinkar Pagare: Auditing
9. Kamal Gupta and Ashok Gupta: Fundamentals of Auditing
10. Kumar Sharma: Auditing Principles & Practice, PHI
11. B. S. Navi: Principles and Practice of Auditing, R.Chand and Co

COURSE - DSC-6.2: INCOME TAX-II

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: The Objective of this course is to make the students understand the computation of Taxable Income and Tax Liability of individual assessees.

Units	Topics	No. of Periods
I	**PROFITS AND GAINS FROM BUSINESS OR PROFESSION:** Meaning and Definition of Business - Profession - Vocation - Expenses Expressly Allowed - Allowable Losses – Expenses Expressly Disallowed – Expenses Allowed on Payment Basis – Problems on Computing taxable Business Incomes of Proprietary Concerns and Problems on Computing Income from Profession - Chartered Accountants - Advocates and Medical Practitioners.	16
II	**CAPITAL GAINS:** Basis of Charge - Capital Assets - Transfer of Capital Assets - Computation of Taxable Capital Gains - Exemptions U/S 54, 54B, 54D, 54EC, 54F.	14
III	**INCOME FROM OTHER SOURCES:** Taxable Income under the head Other Sources - Dividend Income - tax treatment for dividends - Interest on Securities - Rules for Grossing up - Bond Washing Transactions - Problems on Computing Taxable Income from Other Sources.	8
IV	**SET-OFF AND CARRY FORWARD OF LOSSES AND DEDUCTIONS FROM GROSS TOTAL INCOME:** Meaning - Provision for Set-off & Carry forward of losses (Theory only) - Deductions u/s: 80C, 80CCC, 80CCD, 80D, 80E, 80G, 80GG, 80GGC, 80QQB, 80TTA, 80TTB, 80U,	8
V	**ASSESSMENT OF INDIVIDUALS**: Computation of Total Income and Tax Liability of an Individual Assessee (In case of income from salary & house property, computed income shall be taken).	10

Reference Books:

1. Dr. Vinod K. Singhania: Direct Taxes – Law and Practice, Taxmann publication.
2. B.B. Lal: Direct Taxes, Konark Publisher (P) Ltd.
3. Dinakar Pagare: Law and Practice of Income Tax, Sultan Chand and sons.
4. Gaur & Narang: Income Tax, Kalyani publishers
5. B.B. Lal: Income Tax, Central Sales Tax Law & Practice, Konark Publisher (P) Ltd.
6. Dr. H.C Mehrothra: Income Tax, Sahitya Bhavan.

COURSE - DSC-6.3: COSTING METHODS

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The learning objective is to familiarize the students on the use of cost accounting methods in different industries.

Units	Topics	No. of Periods
I	**JOB COSTING AND BATCH COSTING:** **Job Costing**: Meaning - prerequisites – job costing procedure - Features – objectives - applications - advantages and disadvantages of Job costing - Job cost sheet - simple problems. **Batch Costing:** Meaning - difference between job and batch costing - process of accumulation and calculation - determination of EBQ - problems	10
II	**CONTRACT COSTING:** Meaning - features of contract costing - applications of contract costing - similarities and dissimilarities between job costing and contract costing - recording of contract costs - meaning of terms used in contract costing - treatment of profit on incomplete contracts - Problems.	10
III	**PROCESS COSTING:** Meaning - features and applications of Process Costing - comparison between Job Costing and Process Costing - advantages and disadvantages of process costing - treatment of process losses and gains in cost accounts - preparation of process accounts - problems	10
IV	**SERVICE COSTING:** Introduction to service costing - Application of Service costing - Service costing v/s product costing - Cost units for different service sectors - Service cost statement - Determination of costs for different service sectors - Transport services - hospitals and educational institutions - problems on preparation of service cost - statements for these service sectors.	16
V	**ACTIVITY BASED COSTING:** Introduction - Weakness of conventional costing system - concept of ABC - Characteristics of ABC - Kaplan and Cooper's Approach - cost drivers and cost pools - allocation of overheads under ABC - Steps in the implementation of ABC - Benefits from adaptation of ABC system - difficulties faced by the industries in the successful implementation of ABC – Simple problems on ABC.	10

Reference Books:

1. M.N Arora, Cost Accounting. HPH
2. Nigam and Sharma, Advanced Costing.
3. B.S. Raman, Cost Accounting, United Publishers
4. K.S Thakur- Cost Accounting, Excel Books
5. B. Mariyappa, Costing Methods HPH.
6. N.K Prasad, Costing, Book Syndicate Pvt. Limited,
7. Jain & Narang, Cost Accounting, Kalyani Publishers
8. Ravi M. Kishore – Cost Management, Taxmann
9. Anthony R. N. – Management Accounting Principles
10. S. Mukherjee & A. P. Roy chowdhry – Advanced Cost and Management Accountancy
11. V. A. Patil & B. S. Navi; Costing Methods and Techniques-II, R. Chand & Co.
12. Tulsian P.C. & Tulsian Bharat, S. Chand Publishing

COURSE - DSC-6.4: INDIAN FINANCIAL INSTITUTIONS AND MARKETS

Weekly Teaching Hours: 4 Examination Duration: 3 Hours
Credits: 3 Maximum Marks: 100

Objective: The objective of this course is to help students to understand the conceptual framework of Indian financial Institutions and markets and their operations.

Units	Topics	No. of Periods
I	**INTRODUCTION TO INDIAN FINANCIAL SYSTEM:** Meaning – Functions – Structure - Role and Importance of System - Components viz. Regulators - Financial Assets - Financial Institutions - Financial Markets - Financial Services - Challenges to the System - Ethical Practices in Finance Field.	8
II	**REGULATORY INSTITUTIONS:** Reserve Bank of India - Objectives, Functions & Monetary Policy - Credit Control Methods - Securities Exchange Board of India - Objectives, Functions and Powers - IEPF and Its creation and Utilization.	12
III	**FINANCIAL INSTITUTIONS:** Introduction -Types of Banking and Non-Banking Financial Institutions - Constitution, objectives & functions of IDBI, SFCs, SIDCs, LIC, EXIM Bank - Regulatory Institutions - RBI and SEBI: Role and Functions in Regulating Financial Markets in India - Narasimhan Committee Report 1991 and 1998	10
IV	**FINANCIAL MARKETS:** Introduction-Meaning - Characteristics, Functions, Significance and recent developments - Types of Financial Market - Money Market and Capital Market - New Issue market and Secondary market - Capital Market securities - Money Market Instruments - Government securities (Gilt-edged market) - Stock exchange – Functions - Listing of securities - Formalities in stock exchange - Stock Price Indices (Nifty, Sensex, CNX 500, BSE 100) - Introduction to FOREX	10
V	**FINANCIAL SERVICES:** Merchant Banking Services - Scope - Fund Based and Non Fund Based Services - Venture Capital, Features, Importance, Stages, Venture Capital Financing in Indian Scenario - Discounting, Factoring and Forfeiting - Meaning, Terms and Conditions, Types of Factoring - Mutual Funds - Meaning, Importance, features, types, Organization Structure, Mutual Funds in India, Specific terms: Corpus, Units, Schemes, Load, NAV, Benchmark.	10

Reference Books:

1. The Indian Financial System - Vasanth Desai, HPH
2. Indian Financial System - Bharati V. Pathak, Pearson Education Pvt. Ltd.
3. Indian Financial System - Dr. Alice Mani, SBH.
4. Financial Institutions and Markets - L M Bhole Tata Mc Graw Hill
5. Indian Financial System - M Y Khan, TMH
6. Indian Financial System - A Datta, Excel Books
7. Indian Financial System - D.K. Murthy and Venugopal, I.K. International Publishers
8. Indian Financial System - P N Varshney &D K Mittal, Sultan Chand & Sons
9. Indian Financial System - K. Venkatramana, SHBP
10. Indian Financial System - H.R.Machiraju, Viaks Publishing House.

COURSE - DSCAT-6.5: STRATEGIC COST AND PERFORMANCE MANAGEMENT

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: To impart knowledge on applying various cost management techniques for planning and controlling performance in order to set, monitor and control strategic objectives.

Units	Topics	No. of Periods
I	**INTRODUCTION TO STRATEGIC COST:** Concept of Strategic Cost Management - Limitations of Traditional Cost Management -Traditional Vs. Strategic Cost Management - - Cost of Quality - Total Quality Management - Business Excellence Model - Throughput Accounting and Theory of Constraints - Supply Chain Management - Gain Sharing Arrangements - Outsourcing.	6
II	**COST MANAGEMENT TECHNIQUES:** Target Costing - Value Analysis / Value Engineering - Pareto Analysis - Life Cycle Costing - Environmental Management Accounting - Just in Time – Kaizen - 5 Ss - Total Productive Maintenance - Six Sigma - Business Process Re-engineering.	10
III	**PRICING STRATEGIES AND DECISIONS:** Theory and principles of Product Pricing - Pricing - New Product - Finished Products and Pricing of Services - Sensitivity Analysis in Pricing Decisions - Pricing Decision under special circumstances - Pricing Strategies.	10
IV	**PERFORMANCE MEASUREMENT AND EVALUATION:** Responsibility Accounting - Linking Critical Success Factors (CSFs) to Key Performance Indicators (KPIs) and Corporate Strategy; Performance Measurement Models - Balanced Scorecard - The Performance Pyramid - The Performance Prism and The Building Block Model - Operating Profit Analysis - Divisional Performance Measures - Preparation of Performance Reports.	14
V	**STRATEGIC DECISION MAKING AND MANAGERIAL CONTROL:** Decision making using CVP Analysis - Relevant Cost Concepts - Ethical and Non-financial Considerations relevant to decision-making.	10

Reference Books:

1. Jawahar Lal, Startegic Cost Management, HPH
2. Hariharan K, "Strategic Cost Management and Performance Evaluation", Wolters Kluwer.
3. Prasath, Saravana, "Strategic Cost Management and Performance Evaluation", Wolters Kluwer.
4. Kishore, Ravi, "Strategic Cost Management", Taxmann
5. Govindarajan, Shank, "Strategic Cost Management: The New Tool for Competitive Advantage", Simon and Schuster.
6. Study material of the Institute of Chartered Accountants of India (ICAI), The Institute of Cost and Management Accountants of India (ICMAI), and The Institute of Company Secretaries of India (ICSI) – [Freely downloadable from the websites of respective institutions].

COURSE - DSCAT-6.6: CORPORATE TAX PLANNING AND MANAGEMENT

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To impart students with knowledge on tax, tax modalities and to orient the students on the procedures and formalities to be adhered, with regard to tax matters

Units	Topics	No. of Periods
I	**TAX PLANNING AND MANAGEMENT:** Tax Planning, Tax Avoidance and Tax Evasions – Meaning and differences. Objectives and Types of Tax Planning, Areas of Tax Planning – Location of Business, Nature of Business, Form of Ownership, Specific Management Decisions – Capital Structure Decisions, Own or Lease an Asset, Make or Buy Decisions, Repair or Replace Decisions, Transfer Pricing. Tax Planning for Amalgamations.	10
II	**DEPRECIATION AND INVESTENT ALLOWANCE:** Meaning and Definition – Important points regarding Depreciation - Block of Assets – Rates of Depreciation – Additional Depreciation on Plant and Machinery – Problems.	12
III	**ASSESSMENT OF CORPORATE ASSESSEES :** Meaning and Definition of Company - Types of Companies, Residential Status and Incidence of Tax for companies, computation of taxable income and tax liability according to Income Tax Provisions, Book Profits, Minimum Alternate Tax under section 115JB, Tax Credit under MAT, Dividend Distribution Tax u/s 115-O.	
IV	**ASSESSMENT PROCEDURE:** Advance Tax – Computation, remittance, Interest on non-payment or short-payment of Advance Tax, Tax Deduction at Source – Rates, Types of Assessment, Types of Returns.	6
V	**CUSTOMS DUTY:** Import Procedures and Export Procedures. Meaning and Types, Features and Sources, Applicability, Chargeability of Customs Duty, Exceptions for levy of customs duty, Taxable Event, Valuation of imported and exported goods for levy of customs duty. Computation of Customs Duty Payable. General Procedures.	10

Reference Books:

1. Singhania, Vinod, and Singhania, Kapil, "Direct Taxes – Law and Practice", Taxmann.
2. Ahuja, Girish and Gupta, Ravi, "Direct Taxes – Law and Practice", Bharat Publications.
3. Manoharan, T. N and Hari, G.R., "Direct Tax Laws", Snow White Publications.
4. V Rajesh Kumar and Mahadev, "Indirect Taxes", Mc Graw Hill Publications.
5. Sodhani, Vineet, "Indirect Taxes", Taxmann Publications.
6. Manoharan, T.N. and Hari, G.R., "Indirect Taxes:, Snow White Publications.
7. Hiregange, Jain and Nayak, "Student's Handbook on Indirect Taxes", Puliani and Puliani.
8. Study material of the Institute of Chartered Accountants of India available at http://www.icai.org/post.html?post_id=10169 and http://www.icai.org/post.html?post_id=10172

COURSE - DSCF-6.5: RISK MANAGEMENT AND DERIVATIVES

Weekly Teaching Hours: 5 Examination Duration: 3 Hours
Credits: 3 Maximum Marks: 100

Objective: To provide knowledge on risks associated with investments outside the business and strategies for hedging the same with derivatives.

Units	Topics	No. of Periods
I	**Investment Risks and Derivatives** Meaning of Derivatives. Types of Derivatives. – Forward Agreements, Future Contracts – Terms associated with Futures – Stock Futures and Index Futures, Differences between Forwards and Futures, Margin and Settlement Mechanism of Futures.	15
II	**Future Contracts – Hedging and Trading** Hedging with Futures – Stock Hedging: When there is a future contract available on the stock and when there is no future contract available on the stock. Portfolio Hedging: Adjusting Portfolio Risk. Pricing of Futures.	15
III	**Options – Basics and Strategies** Option Contracts – Meaning, Types – Call, Put, American, European. Pay-off and Pay-off Diagrams. Hedging Strategies – Protective Put Strategy and Covered Call Strategy. Trading Strategies with Options – Straddle, Strip, Strap, Strangle, Spreads.	12
IV	**Option Pricing** Put-Call Parity Theory, Portfolio Replication Method, Risk Neutralization Method, Binomial Method and Black-Scholes Method. Option Greeks.	10
V	**Commodity Risks and Commodity Derivatives** Commodity Markets, Commodity Exchanges. Commodity Derivatives.	4

Reference Books:

1. Gupta S.L., "Financial Derivatives – Theory, Concepts and Problems", PHI.
2. Cohen, Guy, "Options Made Easy", FT Prentice Hall
3. Sridhar, A.N., "Futures and Options – Equities – Trading Strategies and Skills", Shroff Publishers and Distributors.
4. Duarte, Joe, "Futures and Options for Dummies", Wiley India.
5. Damodaran, Aswath, "Corporate Finance", John Wiley & Sons Inc.
6. Damodaran Aswath, "Applied Corporate Finance", John Wiley & Sons Inc.
7. Chandra, Prasanna, "Financial Management – Theory and Practice", Tata McGraw-Hill Publishing Company Limited.
8. Pandey, I M, "Financial Management", Vikas Publications.
9. Khan, M.Y., and Jain, P.K., "Financial Management – Text, Problems and Cases", Tata McGraw-Hill Publishing Company Limited.
10. Chance/Brooks, *An Introduction to Derivatives & Risk Management*, Thomson.
11. Hull J, *Options, Futures and Other Derivatives*, 6 ed., Prentice Hall.
12. Kumar, SSS, "Financial Derivatives", Prentice Hall of India.
13. Parasuraman, N.R; "Fundamentals of Financial Derivatives", Wiley India.
14. Vohra, and Bagri, "Futures and Options", Tata Mc Graw Hill.

COURSE - DSCF-6.6: INTERNATIONAL FINANCIAL MANAGEMENT

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To make students understand the various international transactions risks of an enterprise and provide knowledge and skills for hedging foreign currency risks.

Units	Topics	No. of Periods
I	**Global Financial Environment** Evolution of International Monetary System, Bimetallism, Classical Gold Standard, Interwar Period, Bretton Woods System, Flexible Exchange Rate Regime, The current Exchange Rate Agreements, European Monetary System, Fixed vs. Flexible Exchange Rate Regime.	10
II	**Balance of Payments** Introduction, Accounting Principles in Balance of Payments, Valuation and Timing, Components of the Balance of Payments, 'Surplus' and 'Deficit' in Balance of Payments, Importance and limitations of BOP Statistics, Relationship of BOP with other economic variables.	10
III	**International Financial Markets** Motives for using International Financial Markets. Foreign Exchange Market – History and Transactions, interpreting Foreign Exchange Quotations, International Money Markets, International Credit Markets and International Bond Markets. Comparison of International Financial Markets.	10
IV	**Exchange Rate Determination** Purchasing Power Parity Theory, Interest Rate Parity Theory, International Fischer's Effect, Pure Expectations Theory.	15
V	**Foreign Exchange Risk and Risk Hedging Strategies** Transaction Risk, Translation Risk, Economic Risk. Risk Hedging Strategies: Internal – Netting, Leads and Lags. External – Forwards, Futures, Options, Money-market Hedging, Currency Swaps. **Interest Rate Risk and Risk Hedging Strategies** Interest Rate Swaps, Forward Rate Agreements, Interest Rate Futures, Interest Rate Options, Caps, Floors and Collars, Swap option.	15

Reference Books:

1. Madura, Jeff, "International Corporate Finance", Thomson South-Western.
2. Sharan, Vyuptakesh, "International Financial Management", Prentice Hall of India.
3. Jain, Peyrard, and Yadav' "International Financial Management", MacMillan
4. J. Fred Weston, Bart: *Guide to International Financial Management*.
5. Robery O. Edmister: *Financial Institutions - markets and Management.*
6. A.V. Rajwade: *Foreign Exchange International Finance and Risk Management*, Prentice Hall.
7. Alan Shapiro: *Multinational Financial Management*, Prentice Hall, New Delhi.
8. Apte, Prakash, "International Finance – A Business Perspective", Tata Mc Graw Hill.
9. *David B. Zenoff & Jack Zwick: International* Financial Management.
10. Rita M. Rodriguez L. Bigame Carter: *International Financial Management*.
11. V. A. Avadhani: *International Finance- Theory and Practice*, Himalaya Publishing House.

COURSE - DSCM-6.5: SERVICES MARKETING

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of this course is to develop an understanding of services and service marketing which emphasis on various aspects of service marketing which make it different from goods marketing.

Units	Topics	No. of Periods
I	**INTRODUCTION TO SERVICES:** Introduction, meaning of services, nature and scope, unique characteristics, difference between services and tangible products, service sector, classification of services, growth of service sectors and service industries.	12
II	**SERVICES MARKETING:** Introduction, concept and evolution of services marketing, meaning of service marketing, myths encountered in services, need for service marketing, and growth in service marketing.	12
III	**SERVICE MODELS:** Service quality gap model, Gronross model of service quality (internal marketing, external marketing and interactive marketing), challenges in marketing of services, application of service marketing to hospitals, educational institutions, tourism industry.	12
IV	**CONSUMER BEHAVIOR IN SERVICE MARKETING:** Introduction, customer expectations in services, service costs experienced by consumer, the role of customer in service delivery, conflict handling in services, customer responses in services, concept of customer delight.	12
V	**EMERGING ISSUES IN SERVICE MARKETING:** Introduction, strategic approach in services marketing, service marketing in e-commerce and e-marketing, and telemarketing services, service marketing research for global markets and rural markets, innovations in services marketing, ethical aspects in service marketing.	12

Reference Books:

1. S. M. Sinha: Service Marketing, HPH
2. Zeithaml, Bitner, Gremler and Pandit, TMH Publication: Service Marketing.
3. Hoffman and Bateson, Marketing of Services, Cengage Learnings
4. K. Karunakaran: Services Marketing, HPH

COURSE - DSCM-6.6: CONSUMER BEHAVIOUR

Weekly Teaching Hours: 4 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: The objective of the course is to make the students to understand consumer behavior in marketing management and the changing trends in consumer behavior.

Units	Topics	No. of Periods
I	**INTRODUCTION TO CONSUMER BEHAVIOUR:** Meaning & Definition of CB – Difference between consumer & customer – Nature & characteristics of Indian Consumers – Consumer Movement in India – Rights & Responsibilities of consumers in India – Benefits of consumerism.	
II	**PSYCHOLOGICAL DETERMINANTS & CONSUMER BEHAVIOR:** (a) Motivation – Needs, Types, Theories – Role of Motivation in Consumer Behavior. (b) Personality & Attitude – Theories of Personalities & its Application. – Freudian, Trait, Jungian, Self-concept. (c) Formation of Attitude – Theories & its Relevance in Consumer Behavior. – Cognitive Dissonance. – Tricomponent. – Changing Attitude in Consumer Behavior.	12
III	**PERCEPTION AND CONSUMER BEHAVIOUR:** Introduction, meaning, nature, Importance and limitation of perception, Barriers to accurate perception, Sensation, perception of values, perception of process. Determining consumer buying Behaviour:- Consumer purchase decision, types of decision, types of decision behaviour, buying stage and situational influence, models of consumer behaviour- Economic model, learning model, sociological model, Howard Sheth model of buying.	12
IV	**SOCIAL CLASS AND GROUP INFLUENCES ON CONSUMER BEHAVIOR:** Introduction, nature of Social Class, Social Class Categories, Money and Other Status Symbols, Source of Group Influences, Types of Reference Groups, Nature of Reference Groups, reference Group Influences, Applications of Reference Group Influences, Conformity to Group Norms and Behavior, Family Life Cycle Stages, nature of Family Purchases and Decision-making, Husband-wife Influences, Parent-child Influences, Consumer Socialization of Children, word-of-Mouth Communications within Groups, opinion Leadership.	12
V	**CONSUMER DECISION MAKING PROCESS:** Outlet selection – Purchase and post Purchase Behaviour – Organisational Buyer Characteristics – Purchase and Demand patterns – Factors Influencing Organisational Buying Behaviour – Organisational Buying Decision Process – Organisational Buying Roles.	

Reference Books:

1. Suja. R. Nair, Consumer behavior and Marketing Research, Himalaya Publishing House, Mumbai.
2. Boyd, Westfall & starch, Marketing Research, text & cases, AITBS, New Delhi
3. G.C.Beri, Marketing Research, Tata McGraw Hill publishing company, New Delhi.
4. M.N.Mishra, Modern Marketing Research; First Edition, Himalaya Publishing House, Mumbai.
5. Malhotra, Marketing Research.
6. Sontakki; Consumer Behaviour.
7. Schiffman; Consumer Behaviour.
8. Batra/Kazmi; Consumer Behaviour.

COURSE - DSCIB-6.5: GENERAL INSURANCE BUSINESS

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objectives: To develop an understanding of the working of the insurance sector as it unfolds a lot of career opportunities. This necessitates students gain an insight into various facets of insurance sector.

Units	Topics	No. of Periods
I	**INTRODUCTION TO GENERAL INSURANCE:** Meaning of General Insurance – The Evolution and Growth of General Insurance – Types of General Insurance – Fundamentals of General Insurance – Recent innovations. Organization and Management of General Insurance Companies – Regulatory Framework for General Insurance in India.	12
II	**FIRE INSURANCE:** Standard policies – Fire Insurance coverage – Consequential loss (fire) Insurance policies – Declaration policies, Marine Insurance: Marine Cargo policies – Hull policies – Institute cargo clauses – Institute hull clauses – Open policies – Accumulation of risk per location -Motor Insurance: Types of policies – Third party Insurance – Comprehensive coverage – Conditions and Exclusions – premium.	14
III	**NON LIFE INSURANCES:** Personal Accident Insurance, Health Insurance and Mediclaim policies, Liability Insurance, Burglary Insurance other Miscellaneous Insurances, Rural Insurance covers, Engineering Insurance and its Consequential loss covers, Aviation hull and Aviation liability.	12
IV	**UNDERWRITING AND SETTLEMENT OF CLAIMS:** Proposal forms, Cover notes, Certificates of Insurance, Endorsements, Moral and Physical Hazards, Statistics Spreading of Risks, Premium Rating, Premium Loading.	10
V	**SETTLEMENT OF CLAIMS:** Claim procedure, TPAs: Claim forms, Investigation / Assessment, Essential Claim Documents, Settlement Limitation, Arbitration, Loss Minimization and Salvage.	12

Reference Books:

1. Insurance Institute of India – IC 34 – General Insurance
2. Insurance Institute of India – IC 45- General Insurance Underwriting
3. Module I, Principles and Practice of General Insurance, The Institute of Chartered Accountants of India: New Delhi.
4. H Narayanan, Indian Insurance: A Profile, Jaico Publishing House: Mumbai.
5. K.C. Mishra and G.E. Thomas, General Insurance - Principles and Practice, Cengage Learning: New Delhi

COURSE - DSCIB-6.6: INFORMATION TECHNOLOGY IN BANKING

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: To make the students to get acquainted with the use of information technology in banking and cope up with changing requirements of the banking sector.

Units	Topics	No. of Periods
I	**INTRODUCTION TO E-BANKING:** Meaning, definition, features, advantages, and limitations - Evolution of e-banking in India, Legal framework for e-banking. Electronic Payment System Types of Electronic Payment Systems, Digital Token-based EPS, Smart Card EPS, Credit Card EPS, Risk in EPS, Designing a EPSE - banking Business Models Various models - home banking, office banking, online banking, internet banking, mobile banking, SMS banking,- models of electronic payments, other business models	14
II	**DATA MANAGEMENT:** Induction of Techno Management Development Life Cycle, Project Management, Building Data Centres, Role of DBMS in Banking, Data Warehousing and Data Mining, RDBMS Tools.	12
III	**BANKING TECHNOLOGY:** Technology in Banking Industry, Teleconferencing, Internet Banking, Digital Signature in Banking - MICR Facility for 'paper-based' clearing - Cheque Truncation	10
IV	**BANKING INNOVATIONS:** Technological Changes in Indian Banking Industry - Trends in Banking and Information Technology - Technology in Banking - Lead Role of Reserve Bank of India, New Horizons for Banking based IT, Automated Clearing House Operations, Electronic Wholesale Banking Credit Transfer, Credit Information Bureau (I) Ltd., Credit Information Company Regulation Bill- 2004, Automation in Indian Banks.	12
V	**RECENT TRENDS IN BANKING:** New Technology in banking - Core Banking, Home Banking, Mobile banking, Virtual banking, NEFT, RTGS, ECS, E-money, Electronic purse, and Digital cash - Dealing with Fraudulent transactions under CTS, Efficient customer service, smart quill computer pen, Institute for Development & Research in Banking & Technology (IDRBT).	12

Reference Books:

1. Gordon and Natarajan, Banking Theory Law and Practice, HPH
2. S. P Srivastava, Banking Theory and Practice, Anmol Publications
3. Tandan M.L, Banking Law and Practice in India, Indian Law House
4. Sheldon H.P, Practice and Law of Banking
5. K. Venkataramana, Banking Operations, SHBP
6. Kothari N. M, Law and Practice of Banking
7. Neelam C Gulati, Principles of Banking Management
8. Maheshwari. S.N, Banking Law and Practice, Vikas Publication
9. Shekar. K.C, Banking Theory Law and Practice, Vikas Publication
10. Dr. Alice Mani, Banking Law and Operation, SBH
11. Satyadevi, C., *Financial Services Banking and Insurance*, S.Chand
12. Suneja, H.R., *Practical and Law of Banking*, Himalya Publishing House
13. Chabra, T.N., *Elements of Banking Law*, Dhanpat Rai and Sons
14. Saxena, G.S; *Legal Aspects of Banking Operations*, Sultan Chand and Sons
15. Varshney, P.N., *Banking Law and Practice*, Sultan Chand and Sons.

COURSE - SEC-6.7: ENTERPRISE RESOURCE PLANNING

Weekly Teaching Hours: 2 | Examination Duration: 2 Hours
Credits: 1 | Maximum Marks: 50

Objective: To provide a contemporary and forward-looking on the theory and practice of Enterprise Resource Planning Technology and prepare the students to self-upgrade with the higher technical skills.

Units	Topics	No. of Periods
I	**INTRODUCTION TO ENTERPRISE RESOURCE PLANNING:** Introduction - Meaning and Definition of ERP, Need for Enterprise Resource Planning - Evolution of Enterprise Resource Planning - Risks and benefits –Fundamental technology of ERP - Issues to be considered in planning design and implementation of cross functional integrated ERP systems.	10
II	**ERP SOLUTIONS AND FUNCTIONAL MODULES:** Overview of ERP software solutions, Small, medium and large enterprise vendor solutions, Business process Re-engineering - Business process Management - Functional Modules - ERP Production planning module, purchasing module, ERP Inventory control module, ERP Sales module, ERP Marketing module, ERP Financial module and ERP HR module.	10
III	**ERP IMPLEMENTATION:** Planning Evaluation and selection of ERP systems - ERP Implementation life cycle - ERP Implementation methodologies - ERP project teams - vendors and consultants - Post Implementation activities and emerging trends on ERP.	10

Reference Books:

1. Enterprise Resource Planning: Alexis Leon, Tata McGraw Hill.
2. Enterprise Resource Planning: Diversified by Alexis Leon, TMH.
3. Enterprise Resource Planning: Ravi Shankar & S. Jaiswal, Galgotia
4. Enterprise Resource Planning: Concepts & Practices, by V.K. Garg & N. K. Venkatakrishnan, PHI
5. Enterprise wide Resource Planning: Theory & practice: by Rahul Altekar, PHI
6. Enterprise Resource planning: Jyotindra Zaveri, HPH

COURSE - SEC-6.8: INTERNSHIP PROGRAMME

Objective: To enable the students' to undergo in-plant training and understand the overall industrial system.

The students of the sixth semester should undergo 10 days intensive training in any organisation for the Internship Program preferably after completion of fifth semester and before commencement of sixth semester examinations. After the training programme they should prepare and submit the report covering functions of the industry and its contributions towards society. The internship programme should carry 50 marks, out of which 40 marks for the brief report on the in-plant training and 10 marks for the internal assessment. The concerned records should be kept in the college/department for at least six months, which should be produced to the university authorities as and when asked.

QUESTION PAPER PATTERN

Maximum Marks: 80 **Exam Duration: 3 Hours**

Section – A (10X2=20)

1. **Answer any ten sub questions, each sub question carries two marks**
   - **a.**
   - **b.**
   - **c.**
   - **d.**
   - **e.**
   - **f.**
   - **g.**
   - **h.**
   - **i.**
   - **j.**
   - **k.**
   - **l.**

Section – B (3X5=15)

Answer any three questions; each question carries five marks (in case of practical papers four problems and one theory question)

2.
3.
4.
5.
6.

Section – C (2X15=30)

Answer any two questions; each question carries fifteen marks (in case of practical papers three problems and one theory question)

7.
8.
9.
10.
11.

Section - D (1X15=15)

Compulsory question (Case study/problems)

12.

QUESTION PAPER PATTERN

Maximum Marks: 40 **Exam Duration: 2 Hours**

Section – A (5X2=10)

1. Answer any five sub questions, each sub question carries two marks
   a.
   b.
   c.
   d.
   e.
   f.
   g.

Section – B (2X5=10)

Answer any two questions; each question carries five marks

2.
3.
4.
5.

Section – C (2X10=20)

Answer any two questions; each question carries ten marks

6.
7.
8.
9.

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF COMMERCE

1ST & 2ND Semestersw.e.f.

Academic Year 2020-21 and Onwards

Under

CHOICE BASED CREDIT SYSTEM (CBCS)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

Vidyasangama Bhootaramanhatti, Belagavi-591106

COURSE STRUCTURE

Bachelor of Commerce (CBCS)

Regular

(With Effect from Academic Year 2020-21)

	Course Code	Subject and Course	Teaching Hours	Examination Duration	End Semester Examination Marks	IA Marks	Total Marks	Total Credits
First Semester								
Part-I	AECC 1.1	MIL	4	3	80	20	100	3
	AECC 1.2	English	4	3	80	20	100	3
Part-II	DSC 1.3	Financial Accounting-I	5	3	80	20	100	3
	DSC 1.4	Market Behaviour and Cost Analysis	4	3	80	20	100	3
	DSC 1.5	Company Law and Administration	5	3	80	20	100	3
	DSC 1.6	Business Environment	4	3	80	20	100	3
Part-III	SEC 1.7	Practicals on Skill Development	2	2	40	10	50	1
Part-IV	AECC 1.8	Indian Constitution	2	2	40	10	50	2
	CC/EA 1.9	Extra Co-Curricular Activities	-		-	50	50	1
Total			**30**	**-**	**560**	**190**	**750**	**22**
Second Semester								
Part-I	AECC 2.1	MIL	4	3	80	20	100	3
	AECC 2.2	English	4	3	80	20	100	3
Part-II	DSC 2.3	Financial Accounting-II	5	3	80	20	100	3
	DSC 2.4	Modern Management Techniques	4	3	80	20	100	3
	DSC 2.5	Modern Marketing Management	4	3	80	20	100	3
	DSC 2.6	Investment Management	5	3	80	20	100	3
Part-III	SEC 2.7	Practicals on Skill Development	2	2	40	10	50	1

Part-IV	AECC 2.8	Environmental Studies	2	2	40	10	50	2
	CC/EA 2.9	Extra Co-curricular Activities	-	-	-	50	50	1
Total			**30**	**-**	**560**	**190**	**750**	**22**

Note:

1. The B.Com curriculum is divided into four parts and contains different courses, The courses have been named after **AECC:** Ability Enhancement Compulsory Course; **DSC:** Discipline Specific Course; **SEC:** Skill Enhancement Course; and **CC/EA:** Co-curricular and Extra Co-curricular Activities
2. A practicals on skill development subject is a 'hand–on class' which allows students to apply the theories learnt in the class room. One hour practical class is equal to one hour theory class and the class is managed by a single teacher. Practical classes may be conducted in the Business Lab or in Computer Lab or in the class room depending on the requirement. Senior/Experienced/Concerned subject teachers may be allotted the practical workload.
3. IA marks for practical on skill development subject shall be awarded on the basis of practical records submitted by the student and on the basis of internal assessment tests.
4. Co-curricular and Extension Activities: A student shall opt for one of the following activities offered in the college, in all the four semesters of the undergraduate programme. The activity carries a credit each and will be internally assessed for 50 marks. The activities may include a) N.S.S. / N.C.C b) Sports and Games c) Physical Education or Activities related to Yoga d) Field studies / Industry Inplant Training. e) Community work such as promotion of values of National Integration, Environment, Human rights and duties, Peace, Civic sense etc. f) A Small project work concerning the achievements of India in different fields g) Evolution of study groups/seminar circles on Indian thoughts and ideas. h) Computer assisted/web-based learning and e-library skills Evaluation of Co-curricular and Extension Activities shall be as per the procedure evolved by the university from time to time.
5. MIL, English, Indian constitution and Environmental science subjects are studied as per the circulations made by university from time to time. The contents of the syllabus and question papers pattern are also circulated from the university.

B.COM FIRST SEMESTER

COURSE - DSC-1.3: FINANCIAL ACCOUNTING-I

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objectives:

1. To make the students to acquire the conceptual and practical knowledge of accounting.
2. To equip the students with the knowledge of accounting process and skill for preparation of the books of accounts of various forms of business
3. To develop the skills of recording financial transactions and help in preparation of accounts.

Unit	Topics	No of Periods
I	**Conversion of Single entry system into double entry system:** Need for conversion, steps involved in conversion; problems relating thereto.	12
II	**Accounts of Professionals**: Accountants, Lawyers and Doctors only. Fees a/c, Petty Cash book, Clients Ledger, Receipts & Payments a/c, Income & Expenditure a/c & A Balance Sheet.	12
III	**Farm Accounting**: Meaning, objectives, Books of Accounts to be maintained under Single entry & Double entry for Farm Accounting. Preparation of Farm Revenue Account to ascertain the Profit or Loss: of various sections like Crop, Livestock, Dairy & Poultry. Preparation of B/S for Agriculture, Dairy farming & Poultry Farming.	12
IV	**Royalty Accounts**: Meaning and importance - minimum rent, short-workings, recoupment of short–workings, strike period; entries and accounts in the books of lessee and lessor (excluding sub lease)	12
V	**Fire Insurance Accounting:** Introduction – Need – Loss of stock Policy - Steps for Ascertaining Fire Insurance claim - Treatment of salvage – Average Clause – Treatment of Abnormal items – Computation of Fire Insurance Claims.	12

Reference Books:

1. Tulsian: Financial Accounting - Pearson Education, New Delhi.
2. Ashok Sehgal and Deepak Sehgal -Advanced Accounting - Vol. - I, Taxmann Publications, New Delhi.
3. S. N. Maheshwari & S. K. Maheshwari: Advanced Accountancy - Vol. –I & II, Vikas Publications,
4. Shukla & Grewal: Advanced Accountancy - Vol. –I S. Chand & Sons, New Delhi.
5. Jain & Narang: Financial Accounting Kalyani Publishers New Delhi.
6. Advanced Accountancy: Arulanandam, Himalaya publishers.
7. B. S. Navi & R. A. Sanandi: Financial Accounting –I, Shriniketan Publications

COURSE - DSC-1.4: MARKET BEHAVIOUR AND COST ANALYSIS

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To acquaint the students with different dimensions of market behavior and role of cost analysis in decision making.

Unit	Topics	No of Periods
I	**Firms and Decisions:** Firms - Meaning and Goals, Profit Maximization *vs* Wealth Maximization Dynamics, Decision Making – Features, Process, Strategy, Tactical and Operational Decisions, Game Theory, and Problems.	08
II	**Market Forces**: Demand - Meaning, Law of Demand, Nature of Elasticity of Demand, Determinants of Elasticity of Demand, Derived Demand Relations. Demand Forecasting - Meaning and Methods (Problems on Trend Projection by Method Least Squares); Supply - Law of Supply, and Determinants of Supply	10
III	**Location of a Firm**: Locating the Firm, Basic Principles, Selecting an Industrial Location, Primary and Secondary Factors; Sources of Capital, Internal and External Sources; Risk and Uncertainty – Concepts, and Investment Decisions under Uncertainty	10
IV	**Production and Cost Analysis:** Production Function – Concept and Importance, Cost Analysis - Meaning of Short-run and Long-run Costs, Fixed and Variable Costs, Explicit and Implicit Costs, Opportunity Cost and Incremental Costs (concepts only). Total Cost, Average Cost and Marginal Cost Behavior in Short-run and Long-run (including problems). CVP Analysis – Assumptions, Uses, P/V Ratio, BEP, BE Chart, Margin of Safety and Problems.	12
V	**Pricing Practices and Strategies:** Price – Pricing, Pricing Policy, Objectives and Determinants of Pricing Policy, Pricing Methods - Marginal Cost Pricing, Target Rate Pricing, Product Line Pricing, Administered Pricing, Competitive Bidding, Dual Pricing, Transfer Pricing; Price Discrimination - Requirements, Types and Dumping Strategies; Pricing over Product Life Cycle - Skimmed Pricing, Penetration Pricing, Product Line Pricing and Price Leadership; Linear Programming Problems – Problems on Profit Maximization and Cost Minimization using Graphic Method with twoVariables.	10

Note: Each unit to be dealt with suitable numerical problems and case studies from the real economic world wherever necessary.

Reference Books:

1. Dr. B. Mariyappa: Market Behaviour and Cost Analysis, HPH, New Delhi
2. R.L Varshney & Maheshwari: Managerial Economics, Sultan Chand & sons. New Delhi
3. Dwivedi D.N.: Managerial Economics, Vikas Publishing House, New Delhi.
4. Mithani D.M: Managerial Economics, Himalaya publishers, Mumbai
5. Lekhi R.K.: Business Economics, Kalyani Publishers, New Delhi.

COURSE - DSC-1.5: COMPANY LAW AND ADMINISTRATION

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To enable the students to get familiarized with the existing Company Law and Company administration.

Unit	Topics	No of Periods
I	**Joint Stock Companies:** Meaning, Definition and Features Joint Stock Companies, Kinds of Company (concepts only), Public V/c Private Companies- Formation of a Company – Steps viz. Promotion Stage: Meaning of Promoter, Position of Promoter and Functions of Promoter; Incorporation Stage: Steps in incorporation of a company; Meaning and Contents of Memorandum of Association and Articles of Association, Distinction between Memorandum of Association and Articles of Association- Subscription Stage – Meaning, Contents and Types of Prospectus; Commencement Stage – e-filing and Certificate of Commencement of Business.	14
II	**Capital of a Company:** Share Capital – Meaning of Shares – Kinds of Shares – Equity V/s Preference shares; Debentures – Meaning – Features – Types; SEBI guidelines for issue of shares and debentures, Types of Issue of Shares (concepts only), Book Building Process.	12
III	**Key Personnel and Administration:** Key Managerial Personnel – Managing Director, Whole time Directors, Company Secretary, Chief Financial Officer, Resident Director, Independent Director; Auditor – Appointment – Powers – Duties and Responsibilities; Managing Director – Appointment – Powers – Duties and Responsibilities; Audit Committee and CSR Committee, Company Secretary – Meaning, Qualification, Appointment, Duties and Liabilities.	10
IV	**Corporate Meetings:** Meaning and Definition – Requisites of a valid meeting - Types of Meeting: Statutory Meeting– Annual General Meeting – Extra- ordinary General Meeting – Board Meetings; Resolutions: Meaning and Types- Secretary's Duties in relation to these meetings.	12
V	**Structure and Administration of Global Companies:** Meaning – Types – Features – Legal Formalities – Administration- Ethical Practices in Company Administration.	12

Reference Books:

1. Elements of Corporate Law- S.N Maheshwari, HPH.
2. Business Law for Management- Balchandran, HPH
3. Principles of Company Law- M.C. Shukla & Gulshan
4. Company Law and Secretarial Practice- S.C. Kuchhal.

COURSE - DSC-1.6: BUSINESS ENVIRONMENT

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective:

1. To identify and manage factors influencing business.
2. To manage environment by rearranging environmental factors
3. To grab the opportunities and handle the threats

Unit	Topics	No. of periods
I	**Business Environment:** Business-meaning- characteristics-objectives of business. Environment-meaning Business Environment- Types – Internal Environment – External Environment – Micro Environment – factors – Macro Environmental – factors – Business decisions and Business Environment.	10
II	**Economic and Natural Environment:** Meaning – Economic System – Economic Policies – Economic factors – LPG – Natural environmental factors.	10
III	**Political and Legal Environment:** Political environment – Meaning- factors- Government role in business – Legal Environment – Meaning, Advantages and disadvantages of Government intervention in business - Socio-cultural environment – meaning and features.	10
IV	**Business ethics and community services:** Business ethics– meaning, benefits, Community services- meaning, benefits, types of community services, limitations of community services.	10
V	**Technological environment:** Meaning- benefits- impact of technology on society – on economy- on the plant, management of technology.	10

Reference Books:

1. Bedi Suresh, Business Environment – Excel Books, Ansari Road, Darya Ganj, New Delhi
2. Ashwatappa K Essential of Business Environment - Himalaya Publishing House
3. Srivastava O.S. Business Environment – KalyaniPublishers
4. Chidambaram K and Alagappen V Business Environment – Vikash Publishing House
5. Joshi Rosy Walia and Kapoor Sangam Business Environment – Kalyani Publishers
6. Kang K.N.S. Modern Business Environment – Deep and Deep Publishers
7. Saleem Shaik Business Environment – Pearson Education
8. Dr. M.L. Guledgudda Business Environment – Shri Sai Publications, Gadag

COURSE - SEC-1.7: PRACTICALS ON SKILL DEVELOPMENT

Weekly Practical Hours: 2 | Examination Duration: 2 Hours

Credits: 1 | Maximum Marks: 100

Objective: To enable students to learn practical aspects of business functions and help them to improve their knowledge relating to real practices of business in relations to particular functions.

Unit	Topics
I	• Collect a Trial Balance from a Sole Trader and prepare Final Accounts • Collect royalty agreement & prepare of royalty agreement with regard to any suitable situation • List out the transactions by local dairies/poultries and prepare final accounts • Collect Receipts and Payment Account of a Non-trading Concern • Preparation of list of items which comes under Royalty accounts • Calculation of policy premium with imaginary figures • Calculation of fire claims with imaginary figures
II	• Develop a case study on decision making under market uncertainties • A practical example with graphical presentation of Elasticity of Demand. • Construct a table with imaginary figures showing the relationship of various costs. • Practical analysis of product life cycle of a product. • List out factors to be considered for location of a new firm.
III	• Drafting of Memorandum of Association, • Drafting of Articles of Association. • Drafting Notice of Company Meetings – Annual, Special, Extraordinary and Board meetings. • Prepare a prospects of company • Prepare Company's Organization Structure. • List out the rights and obligations of owners of the company • List out code of ethics and governance related aspects of company
IV	• Identify the internal environment of non-trading organization and prepare the strength and weakness of any non-trading organization • Making list of socio-cultural factors of socio-cultural environment of trading organization • Identify the important ethical practices of Hotel Industry (visiting to the units). • Making list of Community Services of business towards village development. • Making list of important business laws that are linked with business. • Making list of business organization that are linked marriage seasons. • Developing techniques to handle the business threats. • Ascertaining impact of Banking Regulations on business.

B.COM SECOND SEMESTER

COURSE - DSC-2.3: FINANCIAL ACCOUNTING-II

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

OBJECTIVES:

1. To appraise the students about the application of accounting knowledge to special business formats
2. To impart the skills of preparation of final accounts of business organizations as per Indian accounting standards
3. To develop the skills of recording of transactions relating to issue of Consignment, branches, Hire purchase, Co-operative Societies and LLP manually.

Unit	Topics	No of Periods
I	**Consignment Accounts:** Meaning of consignment and important terms used in consignment. Valuation of stock, normal loss, abnormal loss; problems relating to consignment in the books of consignor and consignee, cost-price method and invoice-price method – theory and practical problems.	12
II	**Branch Accounts:** Dependent Branches: Features - Books of accounts - Methods of accounting of dependent branches: Debtors System, Stock and debtors (Cost price & Invoice Price) theory and practical problems excluding independent Branch.	12
III	**Hire Purchase Accounting: (**excluding Repossession) Hire Purchase System: Features – Accounting Treatment in the Books of Hire Purchaser and Hire Vendor - and practical problems.	12
IV	**Partnership:** The concept of limited liability partnership: Meaning – Objectives features – Merits in conversion of joint stock companies into Ltd. Liability partnership.	12
V	**Cooperative Society Accounting** – (Theory only) Introduction - Need - Registration, Types of Societies, Books of accounts to be maintained, Accounting standards applicable, Types of audit, Provisions of Co-op Societies Act.	12

ReferenceBooks:

1. Tulsian: Financial Accounting - Pearson Education, New Delhi.
2. Ashok and Deepak Sehgal -Advanced Accounting - Taxmann Publications, New Delhi.
3. S. N. Maheshwari & S. K. Maheshwari: Advanced Accountancy –Vikas Publications,
4. Shukla & Grewal: Advanced Accountancy - Vol. -I, S. Chand & Sons, New Delhi.
5. Jain & Narang: Financial Accounting Kalyani Publishers New Delhi.
6. Advanced Accountancy: Arulanandam, Himalaya publishers
7. Introduction to Accountancy: T.S.Grewal, S. Chand and Co.
8. Financial Accounting : Ashok Banarjee, Excel publications
9. B. S. Navi & R. A. Sanadi: Financial Accounting-II, Shriniketan Publications
10. Cooperative Accounting and Auditing : Y. K. Rao, Mittal Publications
11. Cooperative Accounting : M.Kartikeyan and R. Karunakaran

COURSE - DSC-2.4: MODERN MANAGEMENT TECHNIQUES

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To help students to understand the conceptual framework of management and their applicability in industrial and other organizations.

Unit	Topics	No of Periods
I	**Introduction:** Concept and nature - types of managers- responsibilities and skills of professional managers - functions of management - Fayol's Principles of management - Administration vs Management, management process- Levels of management - Challenges of managing 21st century corporations & organizations.	8
II	**Management Functions:** Planning - meaning & Importance, types, Organizing - concept, principles, theories, types of organizations, Authority, responsibility, power, Delegation, Decentralization, Staffing, Directing, Controlling, Coordinating, Control - nature, process & techniques.	12
III	**Human Resources Management:** Meaning, objectives, functions, HRM process, job analysis, job design, recruitment, selection, placement, Training and development, retention of employees, employee morale, performance appraisal.	10
IV	**Setting Up a New Business Enterprise:** Managerial decisions of setting up a new enterprise - Determination of objectives - Discovery of an idea and its preliminary investigation - Pricing of the product-Marketing of the product- Size of business enterprise – Location - Plant and equipment - Plant layout.	10
V	**Office Management:** Meaning, functions of modern office, duties and responsibilities of office manager, Managerial functions on the office - Planning and organization of an office - Controlling office activities - co-ordination - office layout, techniques and objectives of office layout - locations of departments.	10

Reference Books:

1. Ivancevich; Jhon and Micheal T. Matheson; organizational behavior and Management.
2. Koontz Harold, Cyril O' Donnell, and Hienz Weihrich: Essentials of Management, Tata Mc Graw Hill, New York.
3. A. K. Choudhary; Modern Management Techniques, Commonwealth publications
4. S. L. Goel; Modern Management Techniques, Deep and Deep publications
5. Dr. Pankaj Madan and Dr. Ashotosh; Principles and Practice of Modern Management, Global Vision Publishing House.

COURSE - DSC-2.5: MODERN MARKETING MANAGEMENT

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of this course is to familiarize the students with the concepts, dimensions and trends in modern marketing practices.

Unit	Topics	No of Periods
I	**Introduction:** Meaning and Definition - Evolution of Marketing - Marketing Philosophies - Concepts of Marketing - Functions of Marketing - Importance of Marketing-Marketing Mix - Customer Relationship Management - Job Opportunities in Marketing Field - Ethics in Marketing Field.	**10**
II	**Marketing Environment And Buyer Behaviour:** Types of Environments - Demographic, Economic, Natural, Political, Legal and Socio - Cultural Environments - Market Segmentation – Meaning and Definition - Basis of Market Segmentation, Buyer Behaviour – Factors Influencing Consumer Behaviour - Buying Decision Process.	**10**
III	**Marketing Mix:** Meaning and Elements, Product, Product Mix, Product Line, Product Life Cycle, Product Planning, New Product Development- Pricing – Factors Influencing Pricing - Methods of Pricing (meaning) and Pricing Policy, Physical Distribution – Meaning - Factors affecting Channels of distribution - Types of Marketing Channels, Promotion – Meaning and Significance of Promotion-Personal Selling and Advertising.	**10**
IV	**Recent Developments In Marketing:** Introduction - Online Marketing - Direct Marketing - Social Marketing - Green Marketing - Grey Marketing - Mobile Marketing-Market Forces - e-Business Domain - Marketing in Digital Age - Challenges and Suitability of Digital Marketing in India.	**10**
V	**Services Marketing:** Meaning - Nature and Characteristics of Services - Types of Service – Reasons for Growth of Indian Service Scenario-Services Marketing - Products Marketing V/s Services Marketing - Services Gap Model -7 Ps of Services Marketing - Changing Women's Role in Services marketing - Challenges of Services Marketing.	**10**

Reference Books:

1. Philip Kotler – Marketing Management, PHI.
2. Davar: Marketing Management.
3. Rekha. M.P. &Vibha V – Marketing & Services Mgt –VBH.
4. Sunil B. Rao – Marketing & Services Mgt –HPH.
5. Janardhan T.G., Leelavathy AM, Bhagya G.B. – Marketing & Service Management, Kalyani Publications.

COURSE – DSC-2.6: INVESTMENT MANAGEMENT

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To familiarize the students with different investment alternatives, introduce them to the framework of their analysis and valuation and highlight the role of investor protection

Unit	Topics	No. of periods
I	**Investment Environment**: The investment decision process - Types of Investments – Commodities - Real Estate and Financial Assets - the Indian securities market - the market participants and trading of securities - security market indices - sources of financial information - Concept of return and risk - Impact of Taxes and Inflation on return.	12
II	**Fixed Income Securities**: Bond features - types of bonds, estimating bond yields - Bond Valuation types of bond risks - default risk and credit rating. (with practical problems)	12
III	**Approaches to Equity Analysis**: Introductions to Fundamental Analysis - Technical Analysis and Efficient Market Hypothesis - dividend capitalization models - and price-earnings multiple approach to equity valuation. (with practical problems)	12
IV	**Portfolio Analysis and Financial Derivatives**: Portfolio and Diversification - Portfolio Risk and Return - Mutual Funds - Introduction to Financial Derivatives - Financial Derivatives Markets in India (with practical problems)	12
V	**Investor Protection**: Role of SEBI and stock exchanges in investor protection - Investor grievances and their redressal system - insider trading - investors' awareness and activism.	12

Reference Books:

1. C.P. Jones, Investments Analysis and Management, Wiley, 8th edition.
2. Prasanna Chandra, Investment Analysis and Portfolio Management, McGraw Hill Education.
3. R.P. Rustogi, Fundamentals of Investment, Sultan Chand & Sons, New Delhi.
4. N.D. Vohra and B.R. Bagri, Futures and Options, McGraw Hill Education
5. Mayo, An Introduction to Investment, Cengage Learning

COURSE – SEC-2.7: PRACTICALS ON SKILL DEVELOPMENT

Weekly Practical Hours: 2 | Examination Duration: 2 Hours
Credits: 1 | Maximum Marks: 100

Objectives: The objectives of the course is to enable students to learn practical aspects of business functions and help them to improve their knowledge relating to real practices of business in relations to particular functions.

Unit	Topics
I	• Collect the copy of consignment and analyze the different books maintained • Visit a branch, prepare the report on the method of their accounting • Visit a nearby industry and study the process for hire purchase system of their installations • Draft the accounting procedure of conversion of partnership into joint stock company • Visit a nearby cooperative society, list out the books maintained and accounting standards applicable to them.
II	• List out the principles and functions followed by the nearby organizations. • Identify the management values practiced by the organization • Collect the methods/techniques followed by an organization relating to performance appraisal. • List out the contributions of an organization towards society • Draft an advertisement copy for recruitment of candidates for an organization • Identify the requirements of office management and draft a note by selecting any organization.
III	• Study of consumer behavior for a product of your choice • Suggest strategies for development of a product • Identify the product of your choice and describe in which stage of the product digital marketing shall be adopted • Prepare a chart for distribution network for different products • Develop an advertisement copy for a product
III	• Collect capital structure of any five companies and analyze • List out the financial functions of hotel industry • Draft a note on financial sources of small scale industry • Name the 50 companies whose equities are covered under NIFTY, • Collect information on NCFM (National Certification in Financial Market) and prepare a brief report on the same

QUESTION PAPER PATTERN

Maximum Marks: 80 **Exam Duration: 3 Hours**

Section – A (10X2=20)

1. **Answer any ten sub questions, each sub question carries two marks**
   - **a.**
   - **b.**
   - **c.**
   - **d.**
   - **e.**
   - **f.**
   - **g.**
   - **h.**
   - **i.**
   - **j.**
   - **k.**
   - **l.**

Section – B (3X5=15)

Answer any three questions; each question carries five marks (in case of practical papers four problems and one theory question)

2.
3.
4.
5.

Section – C (2X15=30)

Answer any two questions; each question carries fifteen marks (in case of practical papers three problems and one theory question)

6.
7.
8.
9.
10.

Section - D (1X15=15)

Compulsory question (Case study/problems)

11.

QUESTION PAPER PATTERN

Maximum Marks: 40 **Exam Duration: 2 Hours**

Section – A (5X2=10)

1. Answer any five sub questions, each sub question carries two marks
   a.
   b.
   c.
   d.
   e.
   f.
   g.

Section – B (2X5=10)

Answer any two questions; each question carries five marks

2.
3.
4.
5.

Section – C (2X10=20)

Answer any two questions; each question carries ten marks

6.
7.
8.
9.

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF

UNDER GRADUATE

BACHELOR OF COMMERCE

3rd & 4th Semestersw.e.f.

Academic Year 2021-22 and Onwards

Under

CHOICE BASED CREDIT SYSTEM (CBCS)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

Vidyasangama Bhootaramanhatti, Belagavi-591106

COURSE STRUCTURE

Bachelor of Commerce (CBCS)

Regular

(With Effect from Academic Year 2021-22)

	Course Code	Subject and Course	Teaching Hours	Examination Duration	End Semester Examination Marks	IA Marks	Total Marks	Total Credits
THIRD SEMESTER								
Part-I	AECC 3.1	MIL	4	3	80	20	100	3
	AECC 3.2	English	4	3	80	20	100	3
Part-II	DSC 3.3	Corporate Accounting-I	5	3	80	20	100	3
	DSC 3.4	Entrepreneurship Development	4	3	80	20	100	3
	DSC 3.5	Innovative Banking	4	3	80	20	100	3
	DSC 3.6	Quantitative Analysis for Business Decisions-I	5	3	80	20	100	3
Part-III	SEC 3.7	Practicals on Skill Development	2	2	40	10	50	1
Part-IV	SEC 3.8	E-Commerce	2	2	40	10	50	2
	CC/EA 3.9	Extra Co-curricular Activities	-	-	-	50	50	1
Total			**30**	**-**	**560**	**190**	**750**	**22**
FOURTH SEMESTER								
Part-I	AECC 4.1	MIL	4	3	80	20	100	3
	AECC 4.2	English	4	3	80	20	100	3
Part-II	DSC 4.3	Corporate Accounting-II	5	3	80	20	100	3
	DSC 4.4	Financial Management	4	3	80	20	100	3
	DSC 4.5	Business Laws	4	3	80	20	100	3
	DSC 4.6	Quantitative Analysis for Business Decisions-	5	3	80	20	100	3

		II						
Part-III	SEC 4.7	Practicals on Skill Development	2	2	40	10	50	1
Part-IV	SEC 4.8	Corporate Communication	2	2	40	10	50	2
	CC/EA 4.9	Extra Co-Curricular Activities	-	-	-	50	50	1
Total			**30**	**-**	**560**	**190**	**750**	**22**

Note:

1. The B.Com curriculum is divided into four parts and contains different courses, The courses have been named after **AECC:** Ability Enhancement Compulsory Course; **DSC:** Discipline Specific Course; **SEC:** Skill Enhancement Course; and **CC&EC:** Co-curricular and Extra-curricular Activities
2. A practical is a 'hands–on class' which allows students to apply the theories learnt in the class room. One hour practical class is equal to one hour theory class and the class is managed by a single teacher. Practical classes may be conducted in the Business Lab or in Computer Lab or in the class room depending on the requirement. Experienced and Competent subject teachers may be allotted the practical workload.
3. IA marks for practical on skill development subject shall be awarded on the basis of practical records submitted by the student and on the basis of internal assessment tests.
4. Co-curricular and Extra-curricular Activities: A student shall opt for one of the following activities offered in the college, in all the four semesters of the undergraduate programme. The activity carries a credit each and will be internally assessed for 50 marks. The activities may include a) N.S.S. / N.C.C b) Sports and Games c) Physical Education or Activities related to Yoga d) Field studies / Industry Inplant Training. e) Community work such as promotion of values of National Integration, Environment, Human rights and duties, Peace, Civic sense etc. f) A Small project work concerning the achievements of India in different fields g) Evolution of study groups/seminar circles on Indian thoughts and ideas. h) Computer assisted/web-based learning and e-library skills Evaluation of Co-curricular and Extra-curricular Activities shall be as per the procedure evolved by the university from time to time.
5. MIL and English are studied as per the circulations made by university from time to time. The contents of the syllabus and question papers pattern are also circulated from the university.

B.COM. THIRD SEMESTER

COURSE - DSC-3.3: CORPORATE ACCOUNTING - I

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of this course is to familiarize students with accounting provisions under Companies Act and their application.

Units	Topics	No. of periods
I	**ISSUE OF SHARES AND DEBENTURES:** Share Capital - Subdivision of Share Capital - Issue of Shares - Pricing of Public Issue – Fixed Price offer method - Book-building method –Journal entries for Issue of Shares - when payable fully on application and when payable in installments - if shares are issued at par - at premium and at discount- Calls-in-arrears and Calls-in-advance - Forfeiture and Re-issue of Shares. **Debentures:** Meaning & Types of Debentures - Provisions for Issue of Debentures under Companies Act, 2013 - Accounting entries for issue of Debentures.	12
II	**UNDERWRITING OF SHARES AND DEBENTURES**: Meaning of Underwriting - SEBI regulations regarding underwriting - Underwriting commission - Types of underwriting agreement - conditional and firm - Determination of Liability in respect of underwriting contract - When fully underwritten and partially underwritten - with and without firm underwriting.	10
III	**MANAGERIAL REMUNERATION**: Meaning – Provisions under Schedule V of Companies Act regarding Managerial Remuneration - Overall maximum managerial remuneration - Calculation of Net Profit for Managerial Remuneration - Simple Problems on calculation of remuneration payable.	8
IV	**FINANCIAL STATEMENTS OF COMPANIES:** Components of Financial Statements – Statement of Profit and Loss and Balance Sheet as per Schedule III of Companies Act, 2013 – Main features of Schedule III – Format and Content of Statement and Profit and Loss and Balance Sheet according to Schedule III - Problems on preparation of Financial Statements - Treatment for typical adjustments – depreciation - interest on debentures - tax deducted at source - advance payment of income tax - provision for taxation and dividends.	16
V	**VALUATION OF GOODWILL AND SHARES:** **Valuation of Goodwill:** Meaning – Circumstances of Valuation of Goodwill - Factors influencing the value of Goodwill – Methods of Valuation of Goodwill: Average Profit Method - Super Profit Method - Capitalization of average Profit Method - Capitalization of Super Profit Method - Annuity Method – Problems; **Valuation of Shares:** Meaning – Need for Valuation – Factors Affecting Valuation – Methods of Valuation: Intrinsic Value Method - Yield Method - Problems.	14

Reference Books:

1. Hanif and Mukherjee, Corporate Accounting, McGraw Hill Publishers
2. S P Jain and K. L. Narang, Financial Accounting, Kalyani Publication
3. S Anil Kumar, V Rajesh Kumar and B Mariyappa, Corporate Accounting, HPH
4. S.N. Maheswari, Financial Accounting, Vikas Publication
5. Soundrajan & K. Venkataramana, Financial Accounting, SHBP.
6. A Bannerjee; Financial Accounting.
7. Janardhanam: Advanced Financial Accounting, Kalyani Publishers
8. Radhaswamy and R.L. Gupta, Advanced Accounting, Sultan Chand.
9. M.C. Shukla and Grewal, Advanced Accounting.

COURSE - DSC-3.4: ENTREPRENEURSHIP DEVELOPMENT

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of this course is to help students to understand the entrepreneurial culture and industrial growth to develop entrepreneurial skills.

Units	Topics	No. of Periods
I	**INTRODUCTION TO ENTREPRENEURSHIP**: Evolution of Entrepreneurship – Introduction to the concept of Entrepreneurs- Entrepreneurship and Enterprise - Reasons for growth of Entrepreneurship - Characteristics and Classification of Entrepreneurs– Intrapreneurs- Women Entrepreneurs - Problems and Challenges; Competency requirement for entrepreneurs.	12
II	**ENTREPRENEURSHIP DEVELOPMENT:** Concept – Objectives – Process – EDP in India – Problems and measures - Institutions involved in Entrepreneurship Development – NIESBUD - TCOs – CEDOK – SFCs and KVIC	8
III	**ENTREPRENEURSHIP STIMULATION:** Concept - Public and private system of stimulation - Support and sustainability of entrepreneurship –Requirement - Availability and access to finance - Marketing assistance – Technology and industrial accommodation - Role of industries/entrepreneur's associations and self-help groups - Business incubators - Concept - Role and functions - Angel investors - Venture capital and private equity fund.	10
IV	**RURAL ENTREPRENEURSHIP:** Concept - Rural Entrepreneurial Environment - Problems of Rural Entrepreneurs - Schemes for Rural Entrepreneurship Development - TRYSEM - DOWCRA - Stories of successful Entrepreneurs - Ratan Tata - Dhirubai Ambani - Narayan Murthy - Azim Premji - Laxmipathi Mittal.	12
V	**GOVERNMENT SUPPORT FOR ENTREPRENEURSHIP:** Start-up India - Make in India - Atal Innovation Mission (AIM) - Support to Training and Employment Programme (STEP) - Jan Dhan - Aadhaar - Mobile (JAM) - Digital India - Trade Related Entrepreneurship Assistance and Development (TREAD) - Pradhan Mantri Kausalya Vikas Yojana (PMKVY) - National Skill Development Mission (NSDM). (Concepts only)	8

Reference Books:

1. Tandon B.C: Environment and Entrepreneur; Chugh Publications, Allahabad.
2. Siner A David: Entrepreneurial Mega books; John Wiley and Sons, NewYork.
3. Srivastava S. B: A Practical Guide to Industrial Entrepreneurs; S. Chand, New Delhi.
4. Prasanna Chandra: Project Preparation, Appraisal, Implementation; TMH, New Delhi
5. Kuratko and Rao, *Entrepreneurship: A South Asian Perspective,* Cengage Learning.
6. Robert Hisrich, Michael Peters, Dean Shepherd, *Entrepreneurship,* McGraw-Hill Education.
7. Desai, Vasant. *Dynamics of Entrepreneurial Development and Management*. Mumbai, Himalaya Publishing House.
8. Dollinger, Mare J. *Entrepreneurship: Strategies and Resources*. Illinois, Irwin.
9. Holt, David H. *Entrepreneurship: New Venture Creation*. Prentice-Hall of India, New Delhi.
10. Singh, Nagendra P. *Emerging Trends in Entrepreneurship Development*. New Delhi
11. S. S. Khanka, *Entrepreneurial Development,* S. Chand & Co, Delhi.
12. Hifrich, Manimala, Peters & Shepherd, *Entrepreneurship,* McGraw-Hill
13. Kumar Arya, Entrepreneurship, Pearson
14. Bamford and Bruton, Entrepreneurship, McGraw Hill

COURSE - DSC-3.5: INNOVATIVE BANKING

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of this course is to familiarize the students with the operations and innovations in Banking Sector.

Units	Topics	No. of Periods
I	**INTRODUCTION TO BANKING:** Evolution of Banking - Global and Indian Level - Meaning of Bank and Banking - Composition of Indian Banking - Significance and Functions viz. Primary - Secondary and Modern Functions - Recent trends in Banking - Housing, Education and Vehicle loans - Non-Performing Asset (NPA): Meaning - circumstances & impact - Government Regulations on Priority lending for commercial banks - Ethics in Banking Sector.	12
II	**CUSTOMER AND BANKER RELATIONSHIP:** Customer – Meaning – Types of Bank Accounts - Common Procedure of Opening Accounts - Relationships between Banker and Customer (General – Primary - Subsidiary and Special) - Rights and Obligations of Banker and Customer viz. Honouring and Dishonouring of Cheques - Consequences of Wrongful Dishonour and Damages – Duty of Secrecy and Consequences of Unjustified Disclosure – Garnishee Order and Rights and Duties on Receipt of Order.	10
III	**CHEQUES:** Meaning – Essentials – Advantages - Parties – Types – Dating – Crossing and Types - Opening of Crossing – Obliteration – Cancellation of Crossing – Mutilation – Material Alteration – Stop Payment - Negotiation of Cheques i.e. By Delivery and Endorsement and Types of Endorsement – MICR - IFSC Code.	8
IV	**EMPLOYMENT OF BANK FUNDS:** Banks and Liquidity - Types of Liquidity - Modes of Advancing - Consideration of Sound Lending - Factors Limiting Level of Advances - Lien - Pledge - Hypothecation - **Mortgage:** Meaning - Types - Rights - Asset Classification - Capital Adequacy Norms - Disclosure Standards.	10
V	**e-BANKING AND INTERNET BANKING:** Meaning and Definition – Traditional v/s e-Banking – Advantages and Disadvantages of e-Banking - Facets of e-Banking – Significance of e-Banking – Limitations of e-Banking; **e-Wallet:** Meaning, Types of e-Wallets and Procedure of making E-Payments (i.e. OLB – ATM – EFT - Internet Banking - Debit and Credit Cards – EDI - Mobile Banking - Core Banking - Anywhere Banking - BHIM, PAYTM, GOOGLE PAY (TEZ), PHONE PE (Concepts only).	10

Reference Books:

1. Banking Theory & Practice-S. P Srivastava, Himalaya Publishing House
2. Introduction to Banking- Vijaya Raghavan Iyengar, Excel Publication
3. Law and Practice of Banking- Reddy and Appannaiah, Himalaya Publishing House
4. Banking Law & Practice- B.S.Raman, United Publishers
5. Banking Law and Practice in India -Tannan M.L. Indian Law House
6. Practice and Law of Banking-Sheldon H.P
7. Law and Practice of Banking- K.C.Shekhar
8. Law and Practice of Banking-Radha Krishnana and Vasudevan
9. Banking Law and Practice- Maheshwari S.N., Vikas Publication
10. Law and Practice of Banking- Gajendra and Poddar

COURSE - DSC-3.6: QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS - I

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To develop the students' ability to deal with numerical and quantitative issues in business with understanding of statistical applications in Business Decisions.

Unit	Topics	No. of periods
I	**INTRODUCTION TO QUANTITATIVE ANALYSIS:** Introduction to Quantitative Analysis - Meaning and Definition of Quantitative Techniques - Classification of QT - Programming QT - Statistical QT - Mathematical QT - Role and Uses of QT in Business Decisions - Functions of QT - Scope of QT - Methodology of QT - Limitations of QT.	**10**
II	**APPLICATIONS OF STATISTICAL QUANTITATIVE TECHNIQUES:** Meaning of Averages - Types of Averages - Mathematical Averages - AM – GM and HM - Positional Averages – Median – Mode - Weighted AM - Standard Deviation - Coefficient of Variation - Problems relating to Speed and Work.	**12**
III	**CORRELATION AND REGRESSION ANALYSIS:** Meaning of correlation - Types of correlation - importance of correlation analysis in business decision - Methods of measuring correlation - Karl Pearson's coefficient of correlation - Spearman's rank correlation coefficient - **Regression Analysis:** Meaning - Regression lines Y on X and X on Y (including problems on estimation of mean and correlation from regression line)	**14**
IV	**TIME SERIES:** Meaning of Time Series - Components of Time series - Importance of Time Series in Business decision - Methods of measuring trend values - Moving averages (3, 4, 5 yearly only) - Methods of Least squares (Fitting of straight line only Y = a+bX)	**12**
V	**STATISTICAL QUALITY CONTROL (SQC):** Introduction - Concepts of SQC - Control charts and their uses - Control limits for mean and range P and C charts problems and Interpretations.	**12**

Reference Books:

1. Fundamentals of statistics: S. C. Gupta
2. Business Statistics: S. P. Gupta
3. Business Statistics: A. P. Verma
4. Fundamentals of statistics: A. M. Gun, M. K. Gupta and B. Dasgupta

COURSE - DSC-3.7: PRACTICALS ON SKILL DEVELOPMENT

Weekly Teaching Hours: 2 | Examination Duration: 2 Hours
Credits: 1 | Maximum Marks: 50

Objective: To enable the students' to learn and develop the overall skills through visiting entities/organizations with practical exposure.

Units	Topics
I	**PRACTICALS ON CORPORATE ACCOUNTING-I:** • Visit any company/stock broking agency and collect share application form and fill the contents. • List out the SEBI guidelines for underwriting of shares and debentures. • Collect the financial statements of a company, prepared as per Schedule-III of Companies Act 2013, and analyze. • Collect the balance sheet of a company and calculate value of share using intrinsic value method • Calculate the maximum managerial remuneration payable with imaginary figures.
II	**PRACTICALS ON ENTREPRENEURSHIP DEVELOPMENT:** • Visit to small-scale industry and prepare a SWOC analysis report. • Draft the success stories of business entrepreneurs in your region. • List out at least ten successful entrepreneurs in Karnataka. • List out the problems of rural entrepreneurs • List out the government support schemes for the entrepreneurship.
III	**PRACTICALS ON INNOVATIVE BANKING:** • Collect and fill the application form for opening a Bank Account. • Draw a specimen of Cheque with MICR technology • Draw the specimen of Debit or Credit Card • Collect and fill the form of RTGS/NEFT • Study of any two e-wallet organizations
IV	**PRACTICALS ON QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS-I:** • List out the quantitative techniques used for decision making. • Collect the marks scored by 50 students in a subject and calculate mean/median/mode • Collect age statistics of 10 newly married couples and calculate correlation. • Collect the sales/production data for five years and forecast sales/production for the future. • Narrate the process of testing and quality control in textile manufacturing.

COURSE - SEC-3.8: E-COMMERCE

Weekly Teaching Hours: 2 | Examination Duration: 2 Hours
Credits: 2 | Maximum Marks: 50

Objective: To facilitate the students to gain knowledge about different aspects of e-commerce and trends in commerce

Unit	Topics	No of Periods
I	**INTRODUCTION TO E-COMMERCE**: E-Commerce - meaning, nature, concepts - types; e- commerce business models B2B concept - major activities - types of B to B market (independent, buyer oriented, supplier oriented - e- market place, B2C portals, e-tailor - content provider - transaction broker - real life examples of B2C, C2C, C2B, etc.; forces behind e-commerce - e-Governance meaning - types - significance - real life examples.	10
II	**TRENDS IN E-COMMERCE:** Methods of e-payments Debit Card, Credit Card, Smart Cards, e-Money, electronic or digital wallet, digital signature (concepts), payment gateways Core Banking Solution or CBS, Mobile Payment, UPI, NCPI, International Payments - Social Commerce - Digital Marketing - E-CRM – SCM.	10
III	**COMPUTER APPLICATIONS IN BUSINESS:** Word Opening Screen Elements, Creating, Opening and Saving of Word Document, Formatting, Margin, Paper Selection, Undo-Redo, Spell Check, Alignment, Insert Table, Mail Merge; MS-Word Shortcut Keys. Features, Advantages, MS-Excel Program, Window Elements, Managing Workbooks, Create, Open, Save and Close, Managing, Worksheets - Naming, Inserting, Moving, Coping and Deleting. Navigation in MS-Excel; Standard Toolbar Elements; Types of Cell Data etc.	10

Reference Books:

1. P. T. Joseph, E-Commerce: An Indian Perspective, PHI Learning
2. Henry Chan, Raymond Lee and others, E-Commerce: Fundamentals and Applications
3. Wiley, Landon, E-Commerce, Pearson Education India
4. Schneider G., E-Business, Cengage Publications
5. Bhaskar, B., E–Commerce, McGraw Hill

B.COM. FOURTH SEMESTER

COURSE - DSC-4.3: CORPORATE ACCOUNTING-II

Weekly Teaching Hours: 5 Examination Duration: 3 Hours
Credits: 3 Maximum Marks: 100

Objective: The objective of this course is to make the students familiar with the accounting provisions under Companies Act, 2013 and as per Accounting Standards.

Units	Topics	No. of Periods
I	**REDEMPTION OF PREFERENCE SHARES:** Provisions for Issue and Redemption of Preference Shares under Companies Act, 2013; Conditions for Redemption of Preference Shares; Methods of Redemption – Out of Fresh issue of Shares - out of Capitalization of Undistributed Profits - out of Combination of Fresh Issue and Capitalization of Undistributed Profits –Treatment for Premium on Redemption and Capital Redemption Reserve – Problems.	10
II	**REDEMPTION OF DEBENTURES**: Meaning of Redemption of Debentures - Rules for Redemption of Debentures - Accounting Entries for Redemption of Debentures – when there is no Sinking Fund and when there is Sinking Fund – if Redemption is by Payment of Lump Sum – by Payment in Annual Installments – by Purchase in Open Market and by Conversion into Shares.	14
III	**AMALGAMATION OF COMPANIES:** Introduction – Meaning of Amalgamation; Types of Amalgamation – Amalgamation in the nature of Merger and Amalgamation in the nature of Purchase; Calculation of Purchase Consideration; Methods of Accounting for Amalgamation – Pooling of Interests Method and Purchase Method - Journal Entries and ledger accounts in the books of vendor Company and opening entries and balance sheet in the books of purchasing company (purchase method only)	16
IV	**INTERNAL RECONSTRUCTION AND CAPITAL REDUCTION**: Meaning of Capital Reduction – Objectives of Capital Reduction – Provisions for Reduction of Share Capital under Companies Act, 2013 - Forms of Reduction - Accounting for Capital Reduction - Problems on Passing Journal Entries - Preparation of Capital Reduction Account and Balance sheet after reconstruction.	10
V	**LIQUIDATION OF COMPANIES:** Meaning of Liquidation/Winding up – Modes of Winding up – Compulsory Winding up- Voluntary Winding up and Winding up subject to Supervision by Court - Order of payments in the event of Liquidation-preferential creditors – contributories - Liquidator's final Statement of Account - Problems on preparation of Liquidator's Statement of Account.	10

Reference Books:

1. Hanif and Mukherjee, Corporate Accounting, Mc Graw Hill Publishers
2. S P Jain and K. L. Narang, Financial Accounting, Kalyani Publication
3. Dr. S.N. Maheswari, Financial Accounting, Vikas Publication
4. Soundrajan & K. Venkataramana, Financial Accounting, SHBP.
5. A Bannerjee; Financial Accounting.
6. Dr. Janardhanan: Advanced Financial Accounting, Kalyani Publishers
7. Radhaswamy and R.L. Gupta, Advanced Accounting, Sultan Chand
8. Dr. S Anil Kumar, Dr. V Rajesh Kumar & Dr. B Mariyappa, Advanced Corporate Accounting, HPHM.
9. C. Shukla and Grewal: Advanced Accounting.

COURSE - DSC-4.4: FINANCIAL MANAGEMENT

Weekly Teaching Hours: 4 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: The objective is to enable students to understand the basic concepts of Financial Management and the role of Financial Management in decision-making.

Units	Topics	No. of Periods
I	**INTRODUCTION TO FINANCIAL MANAGEMENT**: Introduction – Meaning of Finance – Business Finance – Finance Functions - Organization structure of Finance Department - Financial Management – Goals of Financial Management – Financial Decisions – Role of a Financial Manager – Financial Planning – Steps in Financial Planning – Principles of Sound Financial Planning – Factors influencing a sound financial plan.	10
II	**TIME VALUE OF MONEY:** Meaning – Need - Future Value (Single Flow - Uneven Flow and Annuity) - - Present Value (Single Flow - Uneven Flow and Annuity) - Doubling Period - Concept of Valuation - Valuation of Bonds - Debentures and Shares - Simple Problems	10
III	**FINANCING AND DIVIDEND DECISION:** **Financing Decision:** Meaning of Capital Structure - Factors Influencing Capital Structure - Optimum Capital Structure– EBIT- EPS Analysis - Leverages – Problems. **Dividend Decision**: Meaning and Determinants of Dividend Policy - Types of Dividends - Bonus shares (Concepts only).	14
IV	**INVESTMENT DECISION:** Meaning and Scope of Capital Budgeting- Features and Significance - Techniques: Payback Period - Accounting Rate of Return - Net Present Value - Internal Rate of Return and Profitability Index with Simple Problems.	16
V	**WORKING CAPITAL MANAGEMENT:** Concept of Working Capital - Significance of Working Capital - Types of Working Capital – Effects of Excess or Inadequate Working Capital – Determinants of Working Capital – Sources of Working Capital- Estimation of Working Capital Requirements (Simple Problems).	10

Reference Books:

1. Dr. V Rajeshkumar and Nagaraju V - Financial Management MH India
2. I M Pandey, Financial Management. Vikas Publication
3. Khan and Jain, Financial Management, TMH
4. P.K Simha – Financial Management
5. Prasanna Chandra, Financial Management, TMH
6. S N Maheshwari, Financial Management, Sultan Chand
7. G. Sudarshan Reddy, Financial Management, HPH
8. Dr. Aswathanarayana T. – Financial Management, VBH
9. Sharma and Sashi K. Gupta, Financial Management, Kalyani Publication
10. B. Mariyappa; Financial Management, HPH

COURSE - DSC-4.5: BUSINESS LAWS

Weekly Teaching Hours: 4 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: To acquaint the students with Business Laws and their interpretation and help them to apply basic principles of Business Laws to solve practical problems.

Units	Topics	No. of Periods
I	**LAW OF CONTRACT – 1872:** Meaning – Definition - Essentials of a Valid Contract- Classification of Contracts - Meaning and Essentials of (i) Offer and Acceptance (ii) Capacity of Parties to Contract (iii) Consideration (iv) Free Consent (v) Legality of Object (vi) Agreements Declared Void - Discharge of Contract - Remedies for Breach of Contract - Quasi Contracts	12
II	**CONSUMER PROTECTION ACT- 2019:** Meaning – Features – Rights of consumers – Redressal Agencies; District, State and National.	8
III	**COMPETITION ACT-2002:** Introduction to competition Act – Objectives - Features – CAT, offences and penalties under the act.	10
IV	**INTELLECTUAL PROPERTY RIGHTS:** Background- Meaning- Definition of Terms- Objectives-Duration of IPR-Scope (i) Copyright-Meaning (ii) Patents-Meaning (iii) Trademark-Meaning (iv) Designs-Meaning (v) Geographical Indications of Goods-Meaning and Examples.	10
V	**ENVIRONMENT AND CYBER LAW:** **Environment Protection Act 1986** – Objectives of the Act, Definitions of Important Terms - Environment, Environment Pollutant - Environment Pollution - Hazardous Substance and Occupier - Types of Pollution - Powers of Central Government to protect Environment in India. **Cyber Law:** Definition, Introduction to Indian Cyber Law - Cyber space and Cyber security - Types of Crimes - Punishment.	10

Reference Books:

1. Business Laws - N.D. Kapoor, Sultan Chand and Sons, New-Delhi
2. Business Laws - Balchandani, Himalaya publishing House, Mumbai
3. Business Laws - M.C. Kuchhal, Vikas Publication, New-Delhi
4. Business Laws - S.S.Gulshan
5. Business Laws - Garg, Chawla and Sarina Sharma, Kalyani Publications
6. Business Laws - RSN Pillai and Bhagawati, S.Chand Publications
7. Business Laws - D.A. Pomeroy, South Western Publications
8. Business Laws - Anderson and Others
9. Business Laws – Dr. S.O. Halasagi and Dr. S.O. Halasagi, Onkar Prakashan, Kagwad.

COURSE - DSC-4.6: QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS-II

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To develop the students' ability to deal with numerical and quantitative issues in business with proper understanding of statistical applications in Business Decisions.

Units	Topics	No. of periods
I	**THEORETICAL PROBABILITY DISTRIBUTION:** Introduction to Theoretical Distribution - Binomial Distribution – Assumptions– Properties - Mean and Variance of BD - PMF of BD; Poisson Distribution - Properties - Mean and Variance - PMF of PD; Normal Distribution - Meaning - Properties - PDF of Normal Distribution; Problems on BD, PD and ND (without fitting)	**14**
II	**ASSIGNMENT PROBLEM:** Introduction to Assignment Problem - Meaning of AP -uses of AP in business decision - types of AP - Balanced Assignment Problem and Unbalanced Assignment problem - Maximization AP – Travelling Salesman AP.	**10**
III	**TRANSPORTATION PROBLEM:** Meaning – Definition - Statement of TP - basic feasible solutions - Degenerate solution - Non Degenerate solution - Balanced and Unbalanced T.P. - Finding Initial Feasible solutions by North West Corner rule Method (NWCR) – Matrix Minima Method (MMM) or Least Cost Method - Vogel Approximation Method (VAM) - Calculation of total transportation cost.	**10**
IV	**DECISION THEORY:** Introduction - Meaning and Definition - Concepts of Acts - State of nature - payoff table - opportunity loss - Decision making environment - Decision making under uncertainty - Non Probabilistic Criteria - Maximax criteria - Maximin criteria - Minimax regret criteria - Laplace criteria - Hurwicz criteria - Probabilistic Criteria - Expected Monetary Value (EMV) -Expected Opportunity Loss (EOL) - Expected value of perfect information (EVPI).	**12**
V	**BUSINESS FORECASTING:** Meaning – Role of forecasting in business – Steps in forecasting – Forecasting models – Qualitative models – Quantitative models- Time Series and Casual Models – Theories of business forecasting – Cautions while doing forecasting.	**12**

Reference Books:

1. Fundamentals of statistics: S. C. Gupta
2. Business Statistics: S. P. Gupta
3. Operation Research: P. C. Tulsian
4. Operation Research: Kalavathy

COURSE - DSC-4.7: PRACTICALS ON SKILL DEVELOPMENT

Weekly Teaching Hours: 2 | Examination Duration: 2 Hours
Credits: 1 | Maximum Marks: 50

Objective: To enable the students' to learn and develop the overall skills through visiting entities/organizations with practical exposure.

Units	Topics
I	**PRACTICALS ON CORPORATE ACCOUNTING-II:** • State the provisions for redemption of preference shares under companies act 2013 • List out at least 10 latest mergers and acquisitions in Indian corporate sector. • Prepare with imaginary figures, a Realisation Account in the books of vendor Company in the case of amalgamation or acquisition. • State the provisions for internal reconstruction under companies act 2013 • Prepare the 'Liquidator's Final Statement of Account' with imaginary figures.
II	**PRACTICALS ON FINANCIAL MANAGEMENT:** • Draw the Organizational Structure of Finance function of any Indian company. • Show the calculation of Future Value and Present Value for Annuity and Perpetuity using imaginary data. • Demonstrate EBIT-EPS Analysis with imaginary figures and calculate all the three types of leverages. • Visit the websites of top Indian companies and collect the information with respect to dividend decisions. • Estimate the working capital requirements for a manufacturing company using imaginary figures.
III	**PRACTICALS ON BUSINESS LAWS:** • Make a chart showing different types of contracts • List out any 10 latest consumer complaints reported to the forums • Prepare the format of copyright agreement, patents and trademark agreement. • Visit the pollution control board and list the measures undertaken for pollution control • Visit the police station handling cyber crimes and list out five latest cyber crimes
IV	**PRACTICALS ON QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS-II:** • List out the situations where probability theory can be applied in business • State the process of solving Assignment Problem • Solve the transportation problem to find basic feasible solution by using NWCR/MMM/VAM with imaginary figures • Draw a flow chart of decision theory with imaginary data • Prepare a list of precautions considered for business forecasting

COURSE - SEC-4.8: CORPORATE COMMUNICATION

Weekly Teaching Hours: 2 | Examination Duration: 2 Hours
Credits: 2 | Maximum Marks: 50

Objective: To create awareness among students about corporate Communication and drafting skills

Units	Topics	No. of Periods
I	**PERSONAL AND SECRETARIAL CORRSPONDENCE:** Letters calling candidates for written test – Drafting interview letters – Offer of appointment – Order of appointment – Show cause notices – Letter of dismissal and discharge. Correspondence with shareholders and debenture holders relating to dividends and interest – Transfer and transmission of shares.	10
II	**INTERNAL COMMUNICATION AND PUBLIC RELATIONS:** Internal memos – Office circulars – Office orders – Communication with regional/ branch offices. **Public Relations**: Meaning, importance and elements - Corporate brand building – Image management – Event management and Media Management.	10
III	**MODERN COMMUNICATION DEVICES:** Internet – Teleconferencing – Mobile phones – Computers – Laptops – Close circuit TVs – Desktop publishing – Electronic mail (e-mail) – SMS Messages – Audio conferencing – Video conferencing – Printing – Electronic storage devices.	10

Reference Books:

1. R. O. Sharma and Krishna Mohan: Business Communication and Report writing, TMH
2. Raman S and Swami R: Business Communication – A practical Approach, Professional publications Madras.
3. Ramesh and Pattanshetti: Effective Business English and Corresspondence.
4. Balasubramanyam: Business Communication Vikas Publishing House, New Delhi
5. Randall E. Mogors: Business Communication - Harper and Row, New York
6. Kaul: Effective Business Communication Prentice Hall, New Delhi
7. Patri V.R.: Essentials of Communication - Greenspan Publications, New Delhi
8. Taylor and Shirley: Model Business Letters -, Pearson Education Asia, New Delhi
9. S.O.Halasagi and Dr. S.O. Halasagi: Business Communication - Onkar Prakashan, Kagwad.

QUESTION PAPER PATTERN

Maximum Marks: 80 **Exam Duration: 3 Hours**

Section – A (10X2=20)

1. **Answer any ten sub questions, each sub question carries two marks**
   - **a.**
   - **b.**
   - **c.**
   - **d.**
   - **e.**
   - **f.**
   - **g.**
   - **h.**
   - **i.**
   - **j.**
   - **k.**
   - **l.**

Section – B (3X5=15)

Answer any three questions; each question carries five marks (in case of practical papers four problems and one theory question)

2.
3.
4.
5.
6.

Section – C (2X15=30)

Answer any two questions; each question carries fifteen marks (in case of practical papers three problems and one theory question)

7.
8.
9.
10.
11.

Section - D (1X15=15)

Compulsory question (Case study/problems)

12.

QUESTION PAPER PATTERN

Maximum Marks: 40 **Exam Duration: 2 Hours**

Section – A (5X2=10)

1. Answer any five sub questions, each sub question carries two marks
   a.
   b.
   c.
   d.
   e.
   f.
   g.

Section – B (2X5=10)

Answer any two questions; each question carries five marks

2.
3.
4.
5.

Section – C (2X10=20)

Answer any two questions; each question carries ten marks

6.
7.
8.
9.

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF COMMERCE

5th & 6th Semestersw.e.f.

Academic Year 2022-23 and Onwards

Under

CHOICE BASED CREDIT SYSTEM (CBCS)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

Vidyasangama Bhootaramanhatti, Belagavi-591106

COURSE STRUCTURE

Bachelor of Commerce (CBCS)

Regular

(With Effect from Academic Year 2022-23)

	Course Code	Subject and Course	Teaching Hours	Examination Duration	End Semester Examination Marks	IA Marks	Total Marks	Total Credits
FIFTH SEMESTER								
Par-I	DSC 5.1	Management Accounting	4	3	80	20	100	4
	DSC 5.2	Income Tax-I	5	3	80	20	100	4
	DSC 5.3	Cost Accounting	5	3	80	20	100	4
	DSC 5.4	Indian Accounting Standards	4	3	80	20	100	4
Total			**18**	**-**	**320**	**80**	**400**	**16**
Group-I : ACCOUNTING AND TAXATION								
Part-II	DSCAT 5.5	Accounting for Managerial Decisions	5	3	80	20	100	4
	DSCAT 5.6	Goods and Service Tax	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Group – II : FINANCE								
Part-II	DSCF 5.5	Corporate Valuation and Restructuring	5	3	80	20	100	4
	DSCF 5.6	Strategic Working Capital Management	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Group – III : MARKETING								
Part-II	DSCM 5.5	Fundamentals of Rural Marketing	5	3	80	20	100	4
	DSCM 5.6	Advertising and Salesmanship	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Group – IV : INSURANCE AND BANKING								
Part-II	DSCIB 5.5	Fundamentals of Life Insurance	5	3	80	20	100	4
	DSCIB 5.6	Principles of Banking	5	3	80	20	100	4

Total			**10**	**-**	**160**	**40**	**200**	**8**
Part-III	SEC 5.7	Community Services	2	2	40	10	50	1
Part-IV	SEC 5.8	E-Accounting	2	2	40	10	50	2
Total			**4**		**80**	**20**	**200**	**3**
Grand Total (Vth Semester)			**32**		**560**	**140**	**700**	**27**
SIXTH SEMESTER								
Part-I	DSC 6.1	Principles and Practice of Auditing	4	3	80	20	100	4
	DSC 6.2	Income Tax-II	5	3	80	20	100	4
	DSC 6.3	Costing Methods	5	3	80	20	100	4
	DSC 6.4	Indian Financial Institutions and Markets	4	3	80	20	100	4
Total			**18**	**-**	**320**	**80**	**400**	**16**
Group-I : ACCOUNTING AND TAXATION								
Part-II	DSC 6.5	Strategic Cost and Performance Management	5	3	80	20	100	4
	DSC 6.6	Corporate Tax Planning and Management	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Group – II : FINANCE								
Part-II	DSC 6.5	Risk Management and Derivatives	5	3	80	20	100	4
	DSC 6.6	International Financial Management	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Group – III : MARKETING								
Part-II	DSC 6.5	Services Marketing	5	3	80	20	100	4
	DSC 6.6	Consumer Behaviour	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Group – IV : INSURANCE AND BANKING								
Part-II	DSC 6.5	General Insurance Business	5	3	80	20	100	4
	DSC 6.6	Information Technology in Banking	5	3	80	20	100	4
Total			**10**	**-**	**160**	**40**	**200**	**8**
Part-	SEC 6.7	Enterprise Resource Planning	2	2	40	10	50	1

III	SEC 6.8	Internship Programme	2	-	40	10	50	2
Total			**4**		**80**	**20**	**100**	**3**
Grand Total (VIth Semester)			**32**		**560**	**140**	**700**	**27**

Note:

1. The B.Com curriculum is divided into four parts and contains different courses, The courses have been named after **AECC:** Ability Enhancement Compulsory Course; **DSC:** Discipline Specific Course; **SEC:** Skill Enhancement Course; and **CC&EC:** Co-curricular and Extra-curricular Activities
2. A practical is a 'hands–on class' which allows students to apply the theories learnt in the class room. One hour practical class is equal to one hour theory class and the class is managed by a single teacher. Practical classes may be conducted in the Business Lab or in Computer Lab or in the class room depending on the requirement. Experienced and Competent subject teachers may be allotted the practical workload.
3. IA marks for practical on skill development subject shall be awarded on the basis of practical records submitted by the student and on the basis of internal assessment tests.
4. Co-curricular and Extra-curricular Activities: A student shall opt for one of the following activities offered in the college, in all the four semesters of the undergraduate programme. The activity carries a credit each and will be internally assessed for 50 marks. The activities may include a) N.S.S. / N.C.C b) Sports and Games c) Physical Education or Activities related to Yoga d) Field studies / Industry Inplant Training. e) Community work such as promotion of values of National Integration, Environment, Human rights and duties, Peace, Civic sense etc. f) A Small project work concerning the achievements of India in different fields g) Evolution of study groups/seminar circles on Indian thoughts and ideas. h) Computer assisted/web-based learning and e-library skills Evaluation of Co-curricular and Extra-curricular Activities shall be as per the procedure evolved by the university from time to time.
5. Student shall have to continue with the same elective groups opted in the Fifth Semester to complete the B.Com course.
6. The students of the sixth semester should undergo 10 days intensive training in any organisation for the Internship Program preferably after completion of fifth semester and before commencement of sixth semester examinations. After the training programme they should prepare and submit the report covering functions of the industry and its contributions towards society. The internship programme should carry 50 marks, out of which 40 marks for the brief report on the in-plant training and 10 marks for the internal assessment. The concerned records should be kept in the college/department for at least six months, which should be produced to the university authorities as and when asked.

COURSE - DSC-5.1: MANAGEMENT ACCOUNTING

Weekly Teaching Hours: 4 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: The objective of this course is to enable the students to understand the analysis and interpretation of financial statements with a view to prepare management reports for decision-making.

Units	Topics	No. of Periods
I	**INTRODUCTION TO MANAGEMENT ACCOUNTING:** Meaning and Definition – Objectives – Nature and Scope – Role of Management Accountant - Relationship between Financial Accounting and Management Accounting - Relationship between Cost Accounting and Management Accounting - advantages and limitations of Management Accounting - Management Reporting– Principles of Good Reporting System.	10
II	**ANALYSIS AND INTERPRETATION OF FINANCIAL STATEMENTS:** Meaning of Financial Statements - Features - Objectives - Advantages and Limitations - Types of Analysis - Methods of Financial Analysis - Problems on Comparative Statement analysis - Common Size Statement analysis and Trend Analysis as per Companies Act, 2013 Schedule III formats.	10
III	**CASH FLOW ANALYSIS:** Meaning and Definition of Cash Flow Statement - Concept of Cash and Cash Equivalents - Uses of Cash Flow Statement – Limitations of Cash Flow Statement– Differences between Cash Flow Statement and Fund Flow Statement – Provisions of Ind.AS-7 - Procedure for preparation of Cash Flow Statement - Cash Flow from Operating Activities - Cash Flow from Investing Activities and Cash Flow from Financing Activities - Preparation of Cash Flow Statement according to Ind.AS-7.	10
IV	**RATIO ANALYSIS:** Meaning and Definition of Ratio - Accounting Ratios and Ratio Analysis - Uses and Limitations - Classification of Ratios - Liquidity Ratios - Profitability Ratios and Solvency Ratios.	10
V	**MANAGEMENT REPORTING SYSTEM:** Meaning and definition of Management Reporting - Requisites of a good reporting system - Principles of good reporting - Kinds of reports - Drafting of reports by management accountant under different situations.	10

Reference Books:

1. Dr. S.N. Maheshwari, Management Accounting, Vikas Publishers.
2. S. C. Saxena, Management Accounting,
3. Dr. S.N. Goyal and Manmohan, Management Accounting,
4. B.S. Raman, Management Accounting, United publishers
5. Sharma and Gupta, Management Accounting, Kalyani Publishers
6. M Muniraju & K Ramachandra, Management Accounting, HPH
7. PN Reddy & Appanaiah, Essentials of Management Accounting, HPH
8. Dr. B Mariyappa , Management Accounting, HPH
9. Sudhindra Bhat- Management Accounting

COURSE - DSC-5.2: INCOME TAX-I

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: The objective of this course is to expose the students to the various provisions of Income Tax Act relating to computation of Income of individual assesses.

Units	Topics	No. of Periods
I	**INTRODUCTION TO INCOME TAX:** Brief History of Indian Income Tax - Legal Frame Work - Types of Taxes - Cannons of Taxation - Important Definitions: Assessment, Assessment Year, Previous Year (including Exceptions), Assessee, Person, Income, Casual Income, Gross Total Income - Scheme of taxation: Meaning and classification of Capital & Revenue - Income tax authorities: Powers & functions of CBDT - CIT & A.O.	10
II	**EXEMPTED INCOMES:** Introduction - Exempted Incomes u/s 10 applicable to Individual Assessees - Agricultural Income: Definition - Scheme of Partial Integration (Theory only)	6
III	**RESIDENTIAL STATUS AND INCIDENCE OF TAX:** Determination of Residential Status of Individual assessees - Incidence of Tax. Problems.	8
IV	**INCOME FROM SALARY:** Meaning and Definition – Basis of Charge – Advance Salary –Arrears of Salary – Allowances - Perquisites - Provident Fund - Profits in Lieu of Salary - Voluntary Retirement – Compensation - Retrenchment Compensation - Gratuity - Commutation of Pension - Encashment of Earned leave - Deductions from Salary u/s 16 - Problems on computation of taxable Income from Salary.	24
V	**INCOME FROM HOUSE PROPERTY:** Basis of Charge - Deemed Owners - Exempted House Property Income - Composite Rent – Annual Value - Determination of Annual Value - Treatment of Unrealized Rent - Loss due to Vacancy - Deductions from Annual Value u/s 24 - Problems on computation of taxable Income from House Property.	12

Reference Books:

1. Dr. Vinod K. Singhania: Direct Taxes – Law and Practice, Taxmann publication.
2. B.B. Lal: Direct Taxes, Konark Publisher (P)ltd.
3. Dr. Mehrotra and Dr. Goyal: Direct Taxes – Law and Practice, Sahitya Bhavan Publication.
4. Dinakar Pagare: Law and Practice of Income Tax, Sultan Chand and sons.
5. Gaur & Narang: Income Tax.
6. 7 Lectures – Income Tax – I,VBH
7. Dr.V.Rajesh Kumar and Dr.R.K.Sreekantha: Income Tax – I, Vittam Publications.

COURSE - DSC-5.3: COST ACCOUNTING

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of this course is to familiarize the students with the cost accounting concepts and their applicability in organizations for the purpose of decision making on cost reduction and efficiency improvement.

Units	Topics	No. of Periods
I	**INTRODUCTION TO COST ACCOUNTING:** Meaning – Nature – Objectives – Functions – Significance - Difference between Cost Accounting and Financial Accounting - Various Elements of Cost and Classification of Cost - Cost object - Cost unit - Cost driver - Use of IT in Cost Accounting; Limitations of Cost Accounting; **Cost Sheet:** Meaning and Cost heads in a Cost Sheet, Presentation of Cost Information in Cost Sheet/Statement - Problems on Cost Sheet - Tenders and Quotations.	14
II	**MATERIALS COST:** Meaning - Importance and Types of Materials – Direct and Indirect Material; Materials procurement**:** Procedure for procurement of materials and documentation involved in procurement of materials -Material Storage and Records: Duties of Store keeper, Store records; Material Issues and Valuation: Procedure for material issues - Valuation of material issues - preparation of Stores Ledger/Account -FIFO, LIFO, Simple Average Price and Weighted Average Price Methods - Problems. EOQ, ABC Analysis, FSN Inventory, VED Inventory, HML Inventory, Physical Control-KANBAN, JIT (concepts only).	12
III	**EMPLOYEE COST:** Meaning – Components - Classification and Importance of Employee (Labour) Cost in Organizations; Time keeping and Time booking - Idle time - Causes and Treatment of Normal and Abnormal Idle time – Overtime - Causes and Treatment (Theory Only); Causes and effects of Employee Turnover - Methods of Remuneration (Payment of Wages and Incentives) Problems on calculation of earnings under Time Rate (Straight Time Rate, Halsey and Rowan Methods) and Piece Rate Systems (Straight Piece Rate and Taylor's Differential Piece Rate only)	8
IV	**OVERHEADS:** Meaning and Classification of Overheads; Accounting and Control of Manufacturing Overheads: Estimation and Collection, Cost Allocation, Apportionment, Re-apportionment and Absorption of Manufacturing Overheads; Problems on Primary and Secondary distribution using Reciprocal Service Methods (Repeated Distribution Method and Simultaneous Equation Method); Absorption of Overheads: Meaning and Methods of Absorption of Overheads; Problems on Machine Hour Rate.	14
V	**RECONCILIATION OF COST AND FINANCIAL ACCOUNTS**: Reasons for differences in Profits under Financial and Cost Accounts; Procedure for Reconciliation - Ascertainment of Profits as per Financial Accounts and Cost Accounts and Reconciliation of Profits of both sets of Accounts - Preparation of Reconciliation Statement - Problems.	8

Reference Books:

1. Jain and Narang. Cost Accounting, Kalyani Publication House
2. M.N Arora Cost Accounting ,HPH
3. M.V. Shukla – Cost and Management Accounting
4. N.K. Prasad: Cost Accounting, Books Syndicate Pvt. Ltd.
5. Dr. V Rajeshkumar, Dr. R K Srikanth – Cost Accounting MHE India
6. Ratnam, Cost Accounting -Kitabmahal
7. P C Tulsian, Cost Accounting – MHE India
8. Nigam & Sharma: Cost Accounting, HPH
9. Dr. B. Mariyappa: Cost Accounting HPH
10. Khanna, Ahuja & Pandey – Practical Costing - S Chand & Co. Ltd.
11. B.S. Raman, Cost Accounting. United Publisher
12. V. A. Patil & B. S. Navi; Cost Accounting-I, S.Chand & Co. Ltd.
13. Ravi M. Kishore – Cost Management –Taxmann.

COURSE - DSC-5.4: INDIAN ACCOUNTING STANDARDS

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of the subject is to enable the students to understand the need and method of presentation of financial statements in accordance with IFRS, which makes the students to acquire knowledge about various IndAS.

Units	Topics	No. of Periods
I	**ACCOUNTING STANDARDS:** Meaning of Accounting Standards - Need for Accounting Standards - Significance or advantages of Accounting Standards - Limitations of Accounting Standards - Orientation to International Accounting Standards and International Financial Reporting Standards - Accounting Standards in Indian Context - Introduction to Indian Accounting Standards (Ind AS). Accounting Bodies. Procedure for issuing Accounting Standards by the Accounting Standards Board	8
II	**PREPARATION OF FINANCIAL STATEMENTS AS PER IND AS:** Framework for preparation of financial statements - Presentation of Financial Statements as per Ind AS 1: Statement of Profit and Loss - Balance Sheet - Statement of Changes in Equity - Statement of Cash Flows and Notes to Accounts; Problems on preparation of Statement of Profit & Loss and Balance Sheet.	10
III	**PROVISIONS UNDER ACCOUNTING STANDARDS FOR ITEMS APPEARING IN FINANCIAL STATEMENTS:** Revenue Recognition (Ind. AS 18); Valuation of Inventory (Ind AS 2); Property - Plant and Equipment - including Depreciation (Ind AS 16); Borrowing Cost (Ind AS 23);Intangible Assets (Ind. AS 38); Provisions (Ind AS 37); Earnings per Share (Ind AS 33).	12
IV	**PROVISIONS UNDER ACCOUNTING STANDARDS FOR ITEMS THAT DO NOT APPEAR IN FINANCIAL STATEMENTS:** Segment Reporting (Ind. AS 108), Related Party Disclosures (Ind AS 24), Events occurring after Balance Sheet Date (Ind. AS 10), Interim Financial Reporting (Ind AS 34)	10
V	**GROUPING OF ACCOUNTS:** Meaning of Group - Holding and Subsidiary Company - Purpose and benefits of preparing Consolidated Financial Statements - Requirements of Companies Act, 2013 in respect of Consolidation of Financial Statements - Components of Consolidated Financial Statements - Calculation of Non controlling Interest - Calculation of Goodwill or Capital Reserve on Consolidation; Accounting treatment for inter-company debts - unrealized profit on stock.	10

Reference Books:

1 IFRS - Student Study Guide - ISDC
2 IFRS for India, Dr. A. L. Saini, Snow White Publications
3 Roadmap to IFRS and Indian Accounting Standards by CA Shibarama Tripathy
4 IFRS Explained - A Guide to IFRS by BPP Learning Media
5 IFRS Concepts and Applications by Kamal Garg, Bharath Law House Private Limited.
6 IFRS: A Quick Reference Guide by Robert J Kirk, Elsevier Ltd.
7 IFRS, Barry Larking, Taxman Publications
8 Anif & Mukherjee, Corporate Accounting, Mc Graw Hill Publishers.
9 Anil Kumar, V. Rajesh Kumar and B. Mariyappa, Indian Accounting Standards, Himalaya Publishing House
10 Miriyala, Ravikanth, Indian Accounting Standards Made Easy, Commercial Law Publishers.
11 Study material of the Institute of Chartered Accountants of India (ICAI), The Institute of Cost and Management Accountants of India (ICMAI), and The Institute of Company Secretaries of India (ICSI) – [Freely downloadable from the websites of respective institutions].

COURSE – DSCAT-5.5: ACCOUNTING FOR MANAGERIAL DECISIONS

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours

Credits: 3 | Maximum Marks: 100

Objective: To develop among learners, an understanding of the various tools and techniques for controlling and reducing cost, and enable effective decision making.

Units	Topics	No. of Periods
I	**COST CONTROL AND COST REDUCTION:** Cost Management - Components of Cost Management - Cost Control and Cost Reduction - Areas of Cost Control and Cost Reduction - Overview of Tools and Techniques for Cost Control and Cost Reduction.	10
II	**MARGINAL COSTING:** Basic concepts of marginal costing - Contribution Margin - Break-even Analysis - Break-even and profit-volume charts - Contribution to Sales Ratio - Margin of Safety - Angle of Incidence - Cost-volume-profit - Multi-product break-even analysis - Key (Limiting) factor.	12
III	**SHORT-TERM DECISION MAKING:** Determination of cost / price of a product / service under marginal costing method - Determination of cost of finished goods and work-in-progress - Comparison of marginal costing with absorption costing methods and reconciliation - Short-term decision making - Make or Buy - Profitable Product Mix - Addition of a new product or line, - Discontinuing an existing product or line.	12
IV	**STANDARD COSTING:** Setting up Standards - Types of Standards - Standard Costing as a method of performance measurement - Calculation and reconciliation of cost variances - Material Cost Variance - Employee Cost Variance - Variable Overhead Variance and Fixed Overhead Variance.	12
V	**BUDGETARY CONTROL:** Meaning of Budget - Essentials of Budget - Budget Manual - Budget Setting Process - Preparation of Budget and Monitoring Procedures - Use of Budget in Planning and Control - Flexible Budget - Preparation of Functional Budget for operating and non-operating functions - Cash budget - Master Budget - Introduction to principal / key budget factor - Zero Based Budgeting (ZBB) - Performance Budget - Control Ratios and Budget Variances.	14

Reference Books:

1. V Rajesh Kumar and R K Sreekantha, "Cost Management", MHE India
2. Guptha, Sachin, Cost and Management Accounting, Taxman Publications
3. Keswani, Sunil, Cost and Management Accounting, Bharat Law House Pvt. Ltd.
4. Kalra, Ashish, Cost and Management Accounting, IGP Publications.
5. Study material of the Institute of Chartered Accountants of India (ICAI), The Institute of Cost and Management Accountants of India (ICMAI), and The Institute of Company Secretaries of India (ICSI) - [Freely downloadable from the websites of respective institutions]

COURSE – DSCAT - 5.6: GOODS AND SERVICE TAX

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: To impart students with knowledge of tax, types and their modalities, to give insight on the taxes influencing a corporate entity – both direct and indirect, and to orient the students on the procedures and formalities to be adhered, with regard to tax matters.

Units	Topics	No. of Periods
I	**INTRODUCTION TO GST:** Meaning of Tax and Types - Differences between Direct and Indirect Taxation - Brief History of Indirect Taxation in India - Structure of Indian Taxation - Rationale for transitions to GST.	10
II	**GST FRAMEWORK:** Introduction to Goods and Services Tax - Constitutional Framework - Orientation to CGST, SGST and IGST - Meaning and Scope of Supply - Types of Supply - Exemptions from GST - GST terminologies and definitions.	10
III	**TIME, PLACE AND VALUE OF SUPPLY:** Time of Supply in case of Goods and Services - Problems on ascertaining Time of Supply - Place of Supply in case of Goods and Services (both General and Specific Services) - Problems on Identification of Place of Supply; Value of Supply - Meaning - Inclusions and Exclusions - Problems on calculation of 'Value of Supply'	12
IV	**GST LIABILITY AND INPUT TAX CREDIT:** Rates of GST - Classification of Goods and Services and Rates based on classification - Problems on computation of GST Liability - Input Tax Credit – Meaning - Process for availing Input Tax Credit - Problems on calculation of Input Tax Credit and Net GST Liability.	14
V	**GST PROCEDURES:** Registration under GST - Tax Invoice - Levy and Collection of GST - Composition Scheme - Due dates for Payment of GST - Accounting record for GST - Features of GST in Tally Package - GST Returns - Types of Returns - Monthly Returns - Annual Return and Final Return - Due dates for filing of returns. Final Assessment - Accounts and Audit under GST.	14

Reference Books:

1. V Rajesh Kumar and Mahadev, "Indirect Taxes", McGraw Hill Education
2. Datey, V S, "Indirect Taxes", Taxmann Publications.
3. Hiregange et al, "Indirect Taxe", Puliani and Puliani.
4. Haldia, Arpit, "GST Made Easy", Taxmann Publications.
5. Chaudhary, Dalmia, Girdharwal, "GST – A Practical Approach", Taxmann Publications.
6. Garg, Kamal, "Understanding GST", Bharat Publications.
7. Hiregange, Jain and Naik, "Students Handbook on GST", Puliani and Puliani.

COURSE - DSCF-5.5: CORPORATE VALUATION AND RESTRUCTURING

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To provide knowledge on valuation of business enterprises and make students to understand the various models of value-based management and give insight on various forms of corporate restructuring.

Units	Topics	No. of Periods
I	**INTRODUCTION AND FUNDAMENTAL TOOLS OF FINANCE:** Meaning of Financial Management - Goals of Financial Management - Analysis of Financial Statements - DU PONT ANALYSIS; Time Value of Money - Compounding, Discounting, Annuity and Perpetuity; Weighted Average Cost of Capital - CAPM based calculation; Beta - Un-levering and Re-levering.	8
II	**CORPORATE VALUATION:** Valuation of Firm and Valuation of Equity - Net Assets Method - Earnings Capitalization Method - Relative Valuation - Chop Shop Method; Discounted Cash Flow (DCF) Method - Adjusted Present Value (APV) Method; ICAI Valuation Standards.	20
III	**VALUE BASED MANAGEMENT:** Marakon Approach - Alcar Approach – Mc-Kinsey Approach - Stern-Stewart Approach (EVA Method) and BCG Approach - Performance Measurement and Analysis - Balanced Scorecard.	10
IV	**CORPORATE RESTRUCTURING:** Corporate Restructuring - Forms of Corporate Restructuring - Asset Restructuring – Securitization - Sale and Lease; Financial Restructuring - Designing and re-designing capital structure; Restructuring of companies incurring continuous losses - restructuring in the event of change in law - Buy-back of shares.	8
V	**BUSINESS COMBINATIONS:** Mergers and Acquisitions - Meaning and differences - Financing of merger (deciding between merger and acquisition) - Determining share Exchange ratio, net asset value, EPS and market price approach - Range and Terms - Feasibility of Mergers and Acquisitions.	10

Reference Books:

1. V. Rajesh Kumar, Strategic Financial Management, Mc Graw Hill Education.
2. Prasanna Chandra, Corporate Valuation and Value Creation, Mc Graw Hill Education.
3. Pattabhiram and Bala, Strategic Financial Management, Snow White Publications.
4. Sridhar A N, Strategic Financial Management, Shroff Publishers and Distributors.
5. Damodaran, Aswath, Damodaran on Valuation, John Wiley.
6. Kishore, Ravi M, Strategic Financial Management, Taxman Publications.
7. Gupta J B, Strategic Financial Management, Taxman Publications.
8. Copeland, Tom, Koller, Tim and Murrin, Jack, "Valuation – Measuring and Managing the Value of Companies", McKinsey Quarterly, Wiley Finance.
9. Weaver, Samuel and Weston, Fred; "Strategic Corporate Finance" South-Western CENGAGE Learning.
10. Allen, David, "An Introduction to Strategic Financial Management – The Key to Long Term Profitability",
11. The Chartered Institute of Management Accountants, Kogan Page. www.valuebasedmanagement.net
12. Study material of the Institute of Chartered Accountants of India (ICAI), The Institute of Cost and Management Accountants of India (ICMAI), and The Institute of Company Secretaries of India (ICSI) – [Freely downloadable from the websites of respective institutions].

COURSE - DSCF-5.6: STRATEGIC WORKING CAPITAL MANAGEMENT

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To orient the students on the estimation of working capital requirements of various types of entities and provide knowledge on managing the components of working capital.

Units	Topics	No. of Periods
I	**INTRODUCTION AND ESTIMATION:** Working Capital - meaning and types; Meaning of Working Capital Management - Meaning and Scope - Estimation of Working Capital Requirement - Need for adequate working capital - Factors influencing working capital requirements - Methods for estimation of Working Capital requirement - Regression method - Operating or cash cycle method and Policy method - Problems on estimation of working capital.	10
II	**FINANCING OF WORKING CAPITAL:** Sources of Working Capital - Trade credit - Loans from banks and financial institutions (Maximum Permissible Bank Finance - concept and problems) - Loan from indigenous bankers - Advances from customers - Accrued expenses - Commercial papers - Debt securitization -Factoring of Receivables and Forfeiting; Factors influencing choice of short-term source of funds - Problems on calculation of cost of each source - Approaches to working capital financing - Matching Approach - Conservative Approach and Aggressive Approach - Problems on approaches to working capital financing.	8
III	**MANAGEMENT OF INVENTORY:** Meaning of Inventory - Inventory Control - objectives - advantages; costs associated with inventory control - scope or areas of inventory control - Procurement of Material - Make or Buy Decision - Purchasing Process, Vendor Selection - Ordering Quantity and Frequency (EOQ) - Manufacturing Quantity and Frequency (EMQ) - Documents relating to procurement of materials - Problems on calculation of EOQ and EMQ; Stores Control - Classes or Types of Stores - Method of Storing - Stock Levels - Classification and codification of material - stock verification - Duties and responsibilities of Stores Manager - Records and documents relating to Stores - Problems on calculation of Stock Levels - Management of Issues - Methods of pricing issues - Ratios relevant to Inventory Control - Problems on Issue of Material.	10
IV	**MANAGEMENT OF RECEIVABLES AND PAYABLES:** Objectives or Purpose of Receivables Management - Costs associated with Receivables; Scope of Receivables Management - Credit Standards - Credit Period - Cash Discount and Collection Efforts - Tools and Techniques for Managing Receivables - Credit Analysis - Risk Classification - Probability Analysis or Decision Tree Analysis - Cost-	20

	benefit Analysis - Ageing schedule - Collection Matrix and Factoring - Problems. **Management of payables:** Introduction - Costs associated with Trade credit - Scope of management of payables - whether to avail credit facility from suppliers or not? Whether to seek extension of credit period or not?, whether to avail discount offer or not?. Problems.	
V	**TREASURY AND CASH MANAGEMENT:** Motives for holding Cash – Transaction - Precautionary and Speculative; Objectives of Cash Management - Costs associated with Cash - Scope of Cash Management - Estimation of Cash Requirement - Managing Cash Inflows - Managing Cash Outflows - Maintenance of Optimal / Ideal Cash Balance; Tools or Techniques for Effective Cash Management - Cash Budget - Invoicing Policy - Concentration Banking - Lock-box System - Playing the Float - Baumol's Model - Miller-Orr Model - Problems - Developments in Cash Management - Electronic Fund Transfer - Virtual Banking - Zero Balance Account - Petty Cash Imprest System etc.	12

Reference Books:

1. Prasanna Chandra, Financial Management – Theory and Practice, Mc Graw Hill Education
2. I M Pandey, Financial Management, Vikas Publications
3. Khan M Y and Jain P K, Financial Management – Text, Problems and Cases, Mc Graw Hill Education
4. V Rajesh Kumar, Financial Management, Mc Graw Hill Education
5. Damodaran, Aswath, Corporate Finance , John Wiley & Sons Inc
6. Damodaran, Aswath, Applied Corporate Finance, John Wiley & Sons Inc
7. Kishore, Ravi M, Financial Management – Problems and Solutions, Taxman Publications
8. Bodhanwala, Ruzbeh, Financial Management using Excel Spreadsheet, Taxman Publications
9. Bahal, Mohit, "Practical Aspects of Financial Management", Suchita Prakashan (P) Ltd.
10. Sharma, Dhiraj, "Working Capital Management – A conceptual Approach", Himalaya Publishing House.
11. Study material of the Institute of Chartered Accountants of India (ICAI), The Institute of Cost and Management Accountants of India (ICMAI), and The Institute of Company Secretaries of India (ICSI) – [Freely downloadable from the websites of respective institutions]

COURSE - DSCM-5.5: FUNDAMENTALS OF RURAL MARKETING

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: To create awareness about the process of marketing in the rural area and help to understand the working of rural marketing institutions with different issues.

Units	Topics	No. of Periods
I	**INTRODUCTION TO RURAL MARKETING:** Meaning, definition, concept, nature, scope, significance of rural marketing - factors contributing to growth of rural markets - components and classification of rural markets - rural market v/s urban market - electronic rural market.	12
II	**AGRICULTURAL MARKETING:** Meaning, definition, concept, nature and types of agriculture produce - concept and types of agricultural markets - marketing channels - methods of sales - market functions.	12
III	**MARKETING MIX FOR RURAL MARKETING:** Product planning for rural products - pricing methods and strategies for products of rural markets - products management in rural markets.	12
IV	**CHANNELS OF DISTRIBUTION:** Distribution pattern and methods in rural markets - special characteristics of rural channels - channel management in rural markets - managing physical distribution in rural markets - storage warehousing and transportation.	12
V	**ISSUES IN RURAL MARKETING:** Rural consumer behavior – features - factors influencing lifestyle of rural consumer - FMCG sector in rural India - concept and classification of consumer goods - marketing channels for FMCG - fast growing FMCG - marketing of consumer durables - role of advertising.	12

Reference Books:

1. Badi R.V. Badi N.V: Rural Marketing, Himalaya Publishing House-2010
2. Acharya S.S Agarawal N.L: Agriculture Marketing In India, Oxford and IBH Publishing Company Pvt. Ltd
3. Marketing Management, planning, implementation and control – Rama Swamy and NamaKumar, Mernillan.
4. Marketing management by C.N Sontakki, Kalyani Publishers

COURSE - DSCM-5.6: ADVERTISING AND SALESMANSHIP

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To familiarize the students regarding advertising and various dimensions of salesmanship and career opportunities available in these fields.

Units	Topics	No. of Periods
I	**INTRODUCTION TO ADVERTISING:** Definition of Advertising – History of Advertising - Roles of Advertising – Functions of Advertising – Key players in Advertising – Types of Advertising – Steps in development of Advertising.	10
II	**ADVERTISING DESIGN:** Advertising Design - Advertising Theory - Types of Advertising Appeals - Structure of an Advertisement - Message Strategies - Cognitive strategies - Exceptional Strategies - Creating an Advertising - Advertising Effectiveness.	10
III	**COPYWRITING:** Meaning and definition of Copywriting – The Copywritr – Copywriting for Print – Copywriting guidelines – Radio of Copywriting – TV Copywriting – Writing for the Web – Tips for writing good web content.	8
IV	**SALESMANSHIP:** Meaning and Definition of Salesmanship - Features of Salesmanship - Scope of Salesmanship - Modern Concept of Salesmanship - Utility of Salesmanship - Elements of Salesmanship - Art or Science Salesmanship – Professional Qualities of Salesman - Psychology of Salesmanship; Attracting Attention - Awakening Interest - Creating Desire and Action.	12
V	**PROCESS OF SELLING:** Stages in Process of Selling – (i) Pre-Sale Preparations (ii) Prospecting (iii) Pre-Approach (iv) Approach (v) Sales Presentation (vi) Handling of Objections (vii) Close (viii) After Sales Follow-up.	10

Reference Books:

1. Dawar S.R --Salesmanship and Advertisement, S. Chand
2. Cummins. J-Sales Promotion—Prentice Hall India
3. Birth and Boyd-New patterns in Sales Management-Mc Graw Hill
4. Debbie Gillialand-Marketing—Mc Graw Hill.
5. Marketing Management Philip Kotler Pearson Publication.
6. Marketing Management RajanSaxena McGraw Hill Education.
7. Principles of Marketing Philip Kotler Pearson Publication

COURSE - DSCIB-5.5: FUNDAMENTALS OF LIFE INSURANCE

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To acquaint students about the principles of managing and administration of insurance business.

Units	Topics	No. of Periods
I	**INTRODUCTION TO LIFE INSURANCE:** Introduction to Life Insurance - Features of Life Insurance, Procedure of taking a Life Insurance Policy- Principles of Life Insurance - Kinds of Life Insurance Policies, Whole Life policies, Endowment policies and Term policies, Annuities - Annuities - Life Insurance Underwriting - Need for Selection - Factors affecting Rate of Mortality - Sources of Data - Concept of Extra Mortality - Numerical Methods of Undertaking and Occupational Hazards.	10
II	**POLICY CONDITIONS AND PREMIUM:** **Policy Conditions:** Conditions relating to commencement of Risk, Riders, Conditions of Premium, Conditions relating to continuation of policies, Nomination and Assignment, Paidup Value, Surrender Value. **Insurance Premium:** Types of Premium, Factors affecting the premium of Life Insurance policies, Methods of premium computation, Natural Premium Plan, Level Premium Plan, Mortality Table, Sources of Mortality information and construction of mortality tables. **Valuation, Surplus and Bonus:** Objects of valuation, Sources of surplus, Bonus and its kinds.	12
III	**LEGAL ASPECTS OF LIFE INSURANCE**: Legal Aspects of Insurance - Indian Contract Act, Special Features of Insurance Contract; Insurance Laws, Insurance Act, LIC Act, and IRDA Act.	14
IV	**CLAIM MANAGEMENT AND RE-INSURANCE**: Claim Management - Claim Settlement - Procedure for settlement of maturity claims - Procedure for death claims - Legal Framework - Third Party Administration - Insurance Ombudsman - Consumer Protection Act.	12
V	**RISK MANAGEMENT AND INSURANCE:** Basic concept of risk, Types of business risk, Assessment and transfer, Basic principles of utmost good faith, Indemnity, Economic function, Proximate cause, Subrogation and contribution, Risk and return relationship, Need for coordination. Power, functions and Role of IRDA, Online Insurance	12

Reference Books:

1. Annie Stephen L, HPH
2. P. Perya Swamy, Principles and Practice of Life Insurance
3. Raman B, Your Life Insurance, Hand Book
4. William C. Arthur, Risk Management and Insurance
5. G. Krishna Swamy, A Text book on Principles and Practices of Life Insurance
6. Gopal Krishnan, Liability Insurance
7. Aramvalarthan, Risk Management I.K. Intl
8. Mishra M.N, Insurance Principles and Practice
9. Agarwal, O.P., *Banking and Insurance*, Himalaya Publishing House
10. Arthur, C. and C. William Jr., *Risk Management and Insurance*, McGraw Hill

COURSE - DSCIB-5.6: PRINCIPLES OF BANKING

Weekly Teaching Hours: 5
Credits: 3

Examination Duration: 3 Hours
Maximum Marks: 100

Objective of the Course: To acquaint the students with the fundamentals of banking and understand the real time banking practices..

Units	Topics	No. of Periods
I	**INTRODUCTION TO BANKING:** Origin of banking - definition - banker and customer relationship - General and special types of customers -Types of deposits - Origin and growth of commercial banks in India - Financial Services offered by banks - Changing role of commercial banks - Types of banks.	12
II	**BANKER AND CUSTOMER**: Introduction - Meaning and Definition of Banker and Customer - General and Special relationship between Banker and Customer - Special types of Customers - Minor, Joint Account, Partnership, Joint Stock Company, Trustee, Clubs and Associations.	10
III	**BANKING OPERATIONS:** Collecting Banker – Meaning, Duties and Responsibilities of Collecting Banker, Holder for Value, Holder in Due Course, Statutory Protection to Collecting Banker; Paying Banker – Meaning, Precautions, Statutory protection to the Paying Banker, New Technology in Banking, e-Services, Debit and Credit Cards, Internet Banking, ATM, Electronic Fund Transfer, MICR, RTGS, NEFT, DEMAT. e– Banking, Core Banking and Mobile Banking.	14
IV	**TYPES OF ACCOUNTS AND LENDING OF FUND**: Savings Bank Account - Current Account and Fixed Deposit Account – Features - Procedure for opening these Accounts; Lending of Funds - Principles of Bank Lending - Secured vs. unsecured advances - types of Loans, Overdrafts, Discounting of Bills, Cash Credit - Advances against various securities.	12
V	**NEGOTIABLE INSTRUMENTS**: Introduction - Meaning and Definition – Features - Kinds of Negotiable Instruments - Meaning, Definition and Features of Promissory Notes - Bills of Exchange and Cheques; Crossing of Cheques - Types of Crossing - Material Alteration - Endorsements - Meaning, Essentials and Kinds of Endorsement.	12

Reference Books:

1. Gordon and Natarajan, Banking Theory Law and Practice, HPH
2. S. P Srivastava, Banking Theory and Practice, Anmol Publications
3. Tandan M.L, Banking Law and Practice in India, Indian Law House
4. Sheldon H.P, Practice and Law of Banking
5. K. Venkataramana, Banking Operations, SHBP
6. Kothari N. M, Law and Practice of Banking
7. Neelam C Gulati, Principles of Banking Management
8. Maheshwari. S.N, Banking Law and Practice, Vikas Publication
9. Shekar. K.C, Banking Theory Law and Practice, Vikas Publication
10. Dr. Alice Mani, Banking Law and Operation, SBH
11. Satyadevi, C., *Financial Services Banking and Insurance*, S.Chand
12. Suneja, H.R., *Practical and Law of Banking*, Himalya Publishing House
13. Chabra, T.N., *Elements of Banking Law*, Dhanpat Rai and Sons
14. Saxena, G.S; *Legal Aspects of Banking Operations*, Sultan Chand and Sons
15. Varshney, P.N., *Banking Law and Practice*, Sultan Chand and Sons

COURSE - SEC-5.7: COMMUNITY SERVICES

Weekly Teaching Hours: 2 | Examination Duration: 2 Hours

Credits: 1 | Maximum Marks: 50

Objective: To enable the students' to learn and develop the skills by involving in the community services.

After the completion of the IV Semester, students should be assigned COMMUNITY SERVICE and it shall be monitored by Mentors. Allocation of the students shall be made to each Mentor. In addition to Commerce faculty, faculty from Languages including English, Additional Subjects, Librarian, and Physical Education Director shall also be appointed as Mentors. The Community Service may be carried out in any type of Non-profit Organisations such as Panchayat Raj Institutions, Public Hospitals, Old Age Homes, Orphanage Houses, Sports Clubs, Women's organisations, Neighbourhood organisations, Religious and Educational organisations, Red Cross, Lions Club, Rotary Clubs, Youth Service Associations, or in any other social service organisation. Minimum of 10 days field service must be ensured. The Report on Community Service shall be submitted 10 days before the commencement of Vth Semester examinations. The Report shall consist of Organisation's Profile, Nature of Service and Experience of the Student, along with Certificate from the Organisation in about 25 pages. The related Marks & Credit will be awarded based on the report.

COURSE - SEC-5.8: E-ACCOUNTING

Weekly Teaching Hours: 2 Examination Duration: 2 Hours

Credits: 2 Maximum Marks: 50

Objective: The objective of the subject is to familiarize the students with Tally.

Units	Topics	No. of Periods
I	**GETTING STARTED WITH TALLY:** Meaning of Tally software – Features - Advantages – Required Hardware - Preparation for Installation of Tally Software – Installation - Items on Tally screen: Menu Options, Creating a New Company, Basic Currency Information, Other Information, Company Features and Inventory Features.	10
II	**CONFIGURING TALLY:** General Configuration, Numerical Symbols, Accounts/Inventory Information – Master Configuration – Voucher Entry Configuration. Working in Tally: Groups - Ledgers, Writing Voucher, Different types of Voucher - Voucher Entry - Problem on Voucher Entry -Trial Balance - Accounts Books, Cash Book - Bank Books, Ledger Accounts - Group Summary - Sales Register and Purchase Register - Journal Register Statement of Accounts & Balance Sheet	10
III	**REPORTS IN TALLY:** Generating Basic Reports in Tally – Financial Statements – Accounting Books and Registers – Inventory Books and Registers – Exception Reports – Printing Reports –Types of Printing Configuration of Options - Printing Format.	10

Reference Books:

1. Raydu – E Commerce, HPH
2. Suman. M – E Commerce & Accounting –HPH
3. Kalakota Ravi and A. B. Whinston: Frontiers of Electronic Commerce, Addison Wesley
4. Watson R T: Electronic Commerce – the strategic perspective. The Dryden press
5. Amrutha Gowry & Soundrajana, E – Business & Accounting, SHBP.
6. Agarwala K. N & Deeksha Ararwala: Business on the Net – Bridge to the online store front, Macmillan, N. Delhi.
7. P. Diwan / S. Sharma – E –Commerce
8. Srivatsava: E.R.P, I.K. International Publishers
9. Diwan, Prag and Sunil Sharma, Electronic Commerce – A manager guide to E-business, Vanity Books International.
10. Tally for Enterprise Solutions.

COURSE – DSC-6.1: PRINCIPLES AND PRACTICE OF AUDITING

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: This course aims at imparting knowledge about the principles and modern auditing techniques and their applications.

Unit	Topics	No. of periods
I	**INTRODUCTION TO AUDITING:** Meaning, definition objectives, difference between accountancy and auditing. Types of audit. Preparation before commencement of new audit- Audit note book, Working papers, audit programme, recent trends in auditing. Nature and significance of GST Audit, cost audit, tax audit and Management audit.	10
II	**PLANNING AND INTERNAL CHECK:** Auditor- Meaning, Definition, Qualification, Qualities and duties of Auditor. Internal control- Meaning, definition, Internal check- Meaning, objectives and fundamental principles. Internal check as regard- wage payment, cash sales, cash purchase. Internal Audit- Meaning, Advantages and disadvantages, difference between internal check and internal audit.	10
III	**VOUCHING:** Meaning, Definition, Importance, Routine checking and vouching- Voucher- Types of vouchers, vouching of receipts- Cash sales receipts from debtors. Proceeds of sale of investments. Vouching of payment- cash purchase, Payment to creditors. Revenue Expenditure.	10
IV	**VERIFICATION AND VALUATION OF ASSETS AND LIABILITY:** Meaning and objectives of verification and valuation of Assets-Land and Building, Plant and Machinery, Goodwill, investment, stock in trade. Liabilities-Bills Payable, Sundry Creditors, Contingent Liability. Errors in Audit.	10
V	**REPORT WRITING:** Meaning, Structure, Types of Audit Reports – Qualified and Clean Audit Report, routine reports and special reports, Professional Ethics of Auditors.	10

Reference Books:

1. R.G.Saxena: Practical Auditing, Himalaya Publications
2. Kamal Gupta: Contemporary Auditing
3. Spicer & Pegler: Practical auditing
4. Jagdish Prakash: Principles and Practices of Auditing
5. Ghatalia: Principles of Auditing
6. N.D.Kapoor: Auditing
7. T.N.Tandon: Practical Auditing
8. Dinkar Pagare: Auditing
9. Kamal Gupta and Ashok Gupta: Fundamentals of Auditing
10. Kumar Sharma: Auditing Principles & Practice, PHI
11. B. S. Navi: Principles and Practice of Auditing, R.Chand and Co

COURSE - DSC-6.2: INCOME TAX-II

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: The Objective of this course is to make the students understand the computation of Taxable Income and Tax Liability of individual assessees.

Units	Topics	No. of Periods
I	**PROFITS AND GAINS FROM BUSINESS OR PROFESSION:** Meaning and Definition of Business - Profession - Vocation - Expenses Expressly Allowed - Allowable Losses – Expenses Expressly Disallowed – Expenses Allowed on Payment Basis – Problems on Computing taxable Business Incomes of Proprietary Concerns and Problems on Computing Income from Profession - Chartered Accountants - Advocates and Medical Practitioners.	16
II	**CAPITAL GAINS:** Basis of Charge - Capital Assets - Transfer of Capital Assets - Computation of Taxable Capital Gains - Exemptions U/S 54, 54B, 54D, 54EC, 54F.	14
III	**INCOME FROM OTHER SOURCES:** Taxable Income under the head Other Sources - Dividend Income - tax treatment for dividends - Interest on Securities - Rules for Grossing up - Bond Washing Transactions - Problems on Computing Taxable Income from Other Sources.	8
IV	**SET-OFF AND CARRY FORWARD OF LOSSES AND DEDUCTIONS FROM GROSS TOTAL INCOME:** Meaning - Provision for Set-off & Carry forward of losses (Theory only) - Deductions u/s: 80C, 80CCC, 80CCD, 80D, 80E, 80G, 80GG, 80GGC, 80QQB, 80TTA, 80TTB, 80U,	8
V	**ASSESSMENT OF INDIVIDUALS**: Computation of Total Income and Tax Liability of an Individual Assessee (In case of income from salary & house property, computed income shall be taken).	10

Reference Books:

1. Dr. Vinod K. Singhania: Direct Taxes – Law and Practice, Taxmann publication.
2. B.B. Lal: Direct Taxes, Konark Publisher (P) Ltd.
3. Dinakar Pagare: Law and Practice of Income Tax, Sultan Chand and sons.
4. Gaur & Narang: Income Tax, Kalyani publishers
5. B.B. Lal: Income Tax, Central Sales Tax Law & Practice, Konark Publisher (P) Ltd.
6. Dr. H.C Mehrothra: Income Tax, Sahitya Bhavan.

COURSE - DSC-6.3: COSTING METHODS

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The learning objective is to familiarize the students on the use of cost accounting methods in different industries.

Units	Topics	No. of Periods
I	**JOB COSTING AND BATCH COSTING:** **Job Costing**: Meaning - prerequisites – job costing procedure - Features – objectives - applications - advantages and disadvantages of Job costing - Job cost sheet - simple problems. **Batch Costing:** Meaning - difference between job and batch costing - process of accumulation and calculation - determination of EBQ - problems	10
II	**CONTRACT COSTING:** Meaning - features of contract costing - applications of contract costing - similarities and dissimilarities between job costing and contract costing - recording of contract costs - meaning of terms used in contract costing - treatment of profit on incomplete contracts - Problems.	10
III	**PROCESS COSTING:** Meaning - features and applications of Process Costing - comparison between Job Costing and Process Costing - advantages and disadvantages of process costing - treatment of process losses and gains in cost accounts - preparation of process accounts - problems	10
IV	**SERVICE COSTING:** Introduction to service costing - Application of Service costing - Service costing v/s product costing - Cost units for different service sectors - Service cost statement - Determination of costs for different service sectors - Transport services - hospitals and educational institutions - problems on preparation of service cost - statements for these service sectors.	16
V	**ACTIVITY BASED COSTING:** Introduction - Weakness of conventional costing system - concept of ABC - Characteristics of ABC - Kaplan and Cooper's Approach - cost drivers and cost pools - allocation of overheads under ABC - Steps in the implementation of ABC - Benefits from adaptation of ABC system - difficulties faced by the industries in the successful implementation of ABC – Simple problems on ABC.	10

Reference Books:

1. M.N Arora, Cost Accounting. HPH
2. Nigam and Sharma, Advanced Costing.
3. B.S. Raman, Cost Accounting, United Publishers
4. K.S Thakur- Cost Accounting, Excel Books
5. B. Mariyappa, Costing Methods HPH.
6. N.K Prasad, Costing, Book Syndicate Pvt. Limited,
7. Jain & Narang, Cost Accounting, Kalyani Publishers
8. Ravi M. Kishore – Cost Management, Taxmann
9. Anthony R. N. – Management Accounting Principles
10. S. Mukherjee & A. P. Roy chowdhry – Advanced Cost and Management Accountancy
11. V. A. Patil & B. S. Navi; Costing Methods and Techniques-II, R. Chand & Co.
12. Tulsian P.C. & Tulsian Bharat, S. Chand Publishing

COURSE - DSC-6.4: INDIAN FINANCIAL INSTITUTIONS AND MARKETS

Weekly Teaching Hours: 4 Examination Duration: 3 Hours
Credits: 3 Maximum Marks: 100

Objective: The objective of this course is to help students to understand the conceptual framework of Indian financial Institutions and markets and their operations.

Units	Topics	No. of Periods
I	**INTRODUCTION TO INDIAN FINANCIAL SYSTEM:** Meaning – Functions – Structure - Role and Importance of System - Components viz. Regulators - Financial Assets - Financial Institutions - Financial Markets - Financial Services - Challenges to the System - Ethical Practices in Finance Field.	8
II	**REGULATORY INSTITUTIONS:** Reserve Bank of India - Objectives, Functions & Monetary Policy - Credit Control Methods - Securities Exchange Board of India - Objectives, Functions and Powers - IEPF and Its creation and Utilization.	12
III	**FINANCIAL INSTITUTIONS:** Introduction -Types of Banking and Non-Banking Financial Institutions - Constitution, objectives & functions of IDBI, SFCs, SIDCs, LIC, EXIM Bank - Regulatory Institutions - RBI and SEBI: Role and Functions in Regulating Financial Markets in India - Narasimhan Committee Report 1991 and 1998	10
IV	**FINANCIAL MARKETS:** Introduction-Meaning - Characteristics, Functions, Significance and recent developments - Types of Financial Market - Money Market and Capital Market - New Issue market and Secondary market - Capital Market securities - Money Market Instruments - Government securities (Gilt-edged market) - Stock exchange – Functions - Listing of securities - Formalities in stock exchange - Stock Price Indices (Nifty, Sensex, CNX 500, BSE 100) - Introduction to FOREX	10
V	**FINANCIAL SERVICES:** Merchant Banking Services - Scope - Fund Based and Non Fund Based Services - Venture Capital, Features, Importance, Stages, Venture Capital Financing in Indian Scenario - Discounting, Factoring and Forfeiting - Meaning, Terms and Conditions, Types of Factoring - Mutual Funds - Meaning, Importance, features, types, Organization Structure, Mutual Funds in India, Specific terms: Corpus, Units, Schemes, Load, NAV, Benchmark.	10

Reference Books:

1. The Indian Financial System - Vasanth Desai, HPH
2. Indian Financial System - Bharati V. Pathak, Pearson Education Pvt. Ltd.
3. Indian Financial System - Dr. Alice Mani, SBH.
4. Financial Institutions and Markets - L M Bhole Tata Mc Graw Hill
5. Indian Financial System - M Y Khan, TMH
6. Indian Financial System - A Datta, Excel Books
7. Indian Financial System - D.K. Murthy and Venugopal, I.K. International Publishers
8. Indian Financial System - P N Varshney &D K Mittal, Sultan Chand & Sons
9. Indian Financial System - K. Venkatramana, SHBP
10. Indian Financial System - H.R.Machiraju, Viaks Publishing House.

COURSE - DSCAT-6.5: STRATEGIC COST AND PERFORMANCE MANAGEMENT

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: To impart knowledge on applying various cost management techniques for planning and controlling performance in order to set, monitor and control strategic objectives.

Units	Topics	No. of Periods
I	**INTRODUCTION TO STRATEGIC COST:** Concept of Strategic Cost Management - Limitations of Traditional Cost Management -Traditional Vs. Strategic Cost Management - - Cost of Quality - Total Quality Management - Business Excellence Model - Throughput Accounting and Theory of Constraints - Supply Chain Management - Gain Sharing Arrangements - Outsourcing.	6
II	**COST MANAGEMENT TECHNIQUES:** Target Costing - Value Analysis / Value Engineering - Pareto Analysis - Life Cycle Costing - Environmental Management Accounting - Just in Time – Kaizen - 5 Ss - Total Productive Maintenance - Six Sigma - Business Process Re-engineering.	10
III	**PRICING STRATEGIES AND DECISIONS:** Theory and principles of Product Pricing - Pricing - New Product - Finished Products and Pricing of Services - Sensitivity Analysis in Pricing Decisions - Pricing Decision under special circumstances - Pricing Strategies.	10
IV	**PERFORMANCE MEASUREMENT AND EVALUATION:** Responsibility Accounting - Linking Critical Success Factors (CSFs) to Key Performance Indicators (KPIs) and Corporate Strategy; Performance Measurement Models - Balanced Scorecard - The Performance Pyramid - The Performance Prism and The Building Block Model - Operating Profit Analysis - Divisional Performance Measures - Preparation of Performance Reports.	14
V	**STRATEGIC DECISION MAKING AND MANAGERIAL CONTROL:** Decision making using CVP Analysis - Relevant Cost Concepts - Ethical and Non-financial Considerations relevant to decision-making.	10

Reference Books:

1. Jawahar Lal, Startegic Cost Management, HPH
2. Hariharan K, "Strategic Cost Management and Performance Evaluation", Wolters Kluwer.
3. Prasath, Saravana, "Strategic Cost Management and Performance Evaluation", Wolters Kluwer.
4. Kishore, Ravi, "Strategic Cost Management", Taxmann
5. Govindarajan, Shank, "Strategic Cost Management: The New Tool for Competitive Advantage", Simon and Schuster.
6. Study material of the Institute of Chartered Accountants of India (ICAI), The Institute of Cost and Management Accountants of India (ICMAI), and The Institute of Company Secretaries of India (ICSI) – [Freely downloadable from the websites of respective institutions].

COURSE - DSCAT-6.6: CORPORATE TAX PLANNING AND MANAGEMENT

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To impart students with knowledge on tax, tax modalities and to orient the students on the procedures and formalities to be adhered, with regard to tax matters

Units	Topics	No. of Periods
I	**TAX PLANNING AND MANAGEMENT:** Tax Planning, Tax Avoidance and Tax Evasions – Meaning and differences. Objectives and Types of Tax Planning, Areas of Tax Planning – Location of Business, Nature of Business, Form of Ownership, Specific Management Decisions – Capital Structure Decisions, Own or Lease an Asset, Make or Buy Decisions, Repair or Replace Decisions, Transfer Pricing. Tax Planning for Amalgamations.	10
II	**DEPRECIATION AND INVESTENT ALLOWANCE:** Meaning and Definition – Important points regarding Depreciation - Block of Assets – Rates of Depreciation – Additional Depreciation on Plant and Machinery – Problems.	12
III	**ASSESSMENT OF CORPORATE ASSESSEES :** Meaning and Definition of Company - Types of Companies, Residential Status and Incidence of Tax for companies, computation of taxable income and tax liability according to Income Tax Provisions, Book Profits, Minimum Alternate Tax under section 115JB, Tax Credit under MAT, Dividend Distribution Tax u/s 115-O.	
IV	**ASSESSMENT PROCEDURE:** Advance Tax – Computation, remittance, Interest on non-payment or short-payment of Advance Tax, Tax Deduction at Source – Rates, Types of Assessment, Types of Returns.	6
V	**CUSTOMS DUTY:** Import Procedures and Export Procedures. Meaning and Types, Features and Sources, Applicability, Chargeability of Customs Duty, Exceptions for levy of customs duty, Taxable Event, Valuation of imported and exported goods for levy of customs duty. Computation of Customs Duty Payable. General Procedures.	10

Reference Books:

1. Singhania, Vinod, and Singhania, Kapil, "Direct Taxes – Law and Practice", Taxmann.
2. Ahuja, Girish and Gupta, Ravi, "Direct Taxes – Law and Practice", Bharat Publications.
3. Manoharan, T. N and Hari, G.R., "Direct Tax Laws", Snow White Publications.
4. V Rajesh Kumar and Mahadev, "Indirect Taxes", Mc Graw Hill Publications.
5. Sodhani, Vineet, "Indirect Taxes", Taxmann Publications.
6. Manoharan, T.N. and Hari, G.R., "Indirect Taxes:, Snow White Publications.
7. Hiregange, Jain and Nayak, "Student's Handbook on Indirect Taxes", Puliani and Puliani.
8. Study material of the Institute of Chartered Accountants of India available at http://www.icai.org/post.html?post_id=10169 and http://www.icai.org/post.html?post_id=10172

COURSE - DSCF-6.5: RISK MANAGEMENT AND DERIVATIVES

Weekly Teaching Hours: 5 Examination Duration: 3 Hours
Credits: 3 Maximum Marks: 100

Objective: To provide knowledge on risks associated with investments outside the business and strategies for hedging the same with derivatives.

Units	Topics	No. of Periods
I	**Investment Risks and Derivatives** Meaning of Derivatives. Types of Derivatives. – Forward Agreements, Future Contracts – Terms associated with Futures – Stock Futures and Index Futures, Differences between Forwards and Futures, Margin and Settlement Mechanism of Futures.	15
II	**Future Contracts – Hedging and Trading** Hedging with Futures – Stock Hedging: When there is a future contract available on the stock and when there is no future contract available on the stock. Portfolio Hedging: Adjusting Portfolio Risk. Pricing of Futures.	15
III	**Options – Basics and Strategies** Option Contracts – Meaning, Types – Call, Put, American, European. Pay-off and Pay-off Diagrams. Hedging Strategies – Protective Put Strategy and Covered Call Strategy. Trading Strategies with Options – Straddle, Strip, Strap, Strangle, Spreads.	12
IV	**Option Pricing** Put-Call Parity Theory, Portfolio Replication Method, Risk Neutralization Method, Binomial Method and Black-Scholes Method. Option Greeks.	10
V	**Commodity Risks and Commodity Derivatives** Commodity Markets, Commodity Exchanges. Commodity Derivatives.	4

Reference Books:

1. Gupta S.L., "Financial Derivatives – Theory, Concepts and Problems", PHI.
2. Cohen, Guy, "Options Made Easy", FT Prentice Hall
3. Sridhar, A.N., "Futures and Options – Equities – Trading Strategies and Skills", Shroff Publishers and Distributors.
4. Duarte, Joe, "Futures and Options for Dummies", Wiley India.
5. Damodaran, Aswath, "Corporate Finance", John Wiley & Sons Inc.
6. Damodaran Aswath, "Applied Corporate Finance", John Wiley & Sons Inc.
7. Chandra, Prasanna, "Financial Management – Theory and Practice", Tata McGraw-Hill Publishing Company Limited.
8. Pandey, I M, "Financial Management", Vikas Publications.
9. Khan, M.Y., and Jain, P.K., "Financial Management – Text, Problems and Cases", Tata McGraw-Hill Publishing Company Limited.
10. Chance/Brooks, *An Introduction to Derivatives & Risk Management*, Thomson.
11. Hull J, *Options, Futures and Other Derivatives*, 6 ed., Prentice Hall.
12. Kumar, SSS, "Financial Derivatives", Prentice Hall of India.
13. Parasuraman, N.R; "Fundamentals of Financial Derivatives", Wiley India.
14. Vohra, and Bagri, "Futures and Options", Tata Mc Graw Hill.

COURSE - DSCF-6.6: INTERNATIONAL FINANCIAL MANAGEMENT

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To make students understand the various international transactions risks of an enterprise and provide knowledge and skills for hedging foreign currency risks.

Units	Topics	No. of Periods
I	**Global Financial Environment** Evolution of International Monetary System, Bimetallism, Classical Gold Standard, Interwar Period, Bretton Woods System, Flexible Exchange Rate Regime, The current Exchange Rate Agreements, European Monetary System, Fixed vs. Flexible Exchange Rate Regime.	10
II	**Balance of Payments** Introduction, Accounting Principles in Balance of Payments, Valuation and Timing, Components of the Balance of Payments, 'Surplus' and 'Deficit' in Balance of Payments, Importance and limitations of BOP Statistics, Relationship of BOP with other economic variables.	10
III	**International Financial Markets** Motives for using International Financial Markets. Foreign Exchange Market – History and Transactions, interpreting Foreign Exchange Quotations, International Money Markets, International Credit Markets and International Bond Markets. Comparison of International Financial Markets.	10
IV	**Exchange Rate Determination** Purchasing Power Parity Theory, Interest Rate Parity Theory, International Fischer's Effect, Pure Expectations Theory.	15
V	**Foreign Exchange Risk and Risk Hedging Strategies** Transaction Risk, Translation Risk, Economic Risk. Risk Hedging Strategies: Internal – Netting, Leads and Lags. External – Forwards, Futures, Options, Money-market Hedging, Currency Swaps. **Interest Rate Risk and Risk Hedging Strategies** Interest Rate Swaps, Forward Rate Agreements, Interest Rate Futures, Interest Rate Options, Caps, Floors and Collars, Swap option.	15

Reference Books:

1. Madura, Jeff, "International Corporate Finance", Thomson South-Western.
2. Sharan, Vyuptakesh, "International Financial Management", Prentice Hall of India.
3. Jain, Peyrard, and Yadav' "International Financial Management", MacMillan
4. J. Fred Weston, Bart: *Guide to International Financial Management*.
5. Robery O. Edmister: *Financial Institutions - markets and Management.*
6. A.V. Rajwade: *Foreign Exchange International Finance and Risk Management*, Prentice Hall.
7. Alan Shapiro: *Multinational Financial Management*, Prentice Hall, New Delhi.
8. Apte, Prakash, "International Finance – A Business Perspective", Tata Mc Graw Hill.
9. *David B. Zenoff & Jack Zwick: International* Financial Management.
10. Rita M. Rodriguez L. Bigame Carter: *International Financial Management*.
11. V. A. Avadhani: *International Finance- Theory and Practice*, Himalaya Publishing House.

COURSE - DSCM-6.5: SERVICES MARKETING

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of this course is to develop an understanding of services and service marketing which emphasis on various aspects of service marketing which make it different from goods marketing.

Units	Topics	No. of Periods
I	**INTRODUCTION TO SERVICES:** Introduction, meaning of services, nature and scope, unique characteristics, difference between services and tangible products, service sector, classification of services, growth of service sectors and service industries.	12
II	**SERVICES MARKETING:** Introduction, concept and evolution of services marketing, meaning of service marketing, myths encountered in services, need for service marketing, and growth in service marketing.	12
III	**SERVICE MODELS:** Service quality gap model, Gronross model of service quality (internal marketing, external marketing and interactive marketing), challenges in marketing of services, application of service marketing to hospitals, educational institutions, tourism industry.	12
IV	**CONSUMER BEHAVIOR IN SERVICE MARKETING:** Introduction, customer expectations in services, service costs experienced by consumer, the role of customer in service delivery, conflict handling in services, customer responses in services, concept of customer delight.	12
V	**EMERGING ISSUES IN SERVICE MARKETING:** Introduction, strategic approach in services marketing, service marketing in e-commerce and e-marketing, and telemarketing services, service marketing research for global markets and rural markets, innovations in services marketing, ethical aspects in service marketing.	12

Reference Books:

1. S. M. Sinha: Service Marketing, HPH
2. Zeithaml, Bitner, Gremler and Pandit, TMH Publication: Service Marketing.
3. Hoffman and Bateson, Marketing of Services, Cengage Learnings
4. K. Karunakaran: Services Marketing, HPH

COURSE - DSCM-6.6: CONSUMER BEHAVIOUR

Weekly Teaching Hours: 4 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: The objective of the course is to make the students to understand consumer behavior in marketing management and the changing trends in consumer behavior.

Units	Topics	No. of Periods
I	**INTRODUCTION TO CONSUMER BEHAVIOUR:** Meaning & Definition of CB – Difference between consumer & customer – Nature & characteristics of Indian Consumers – Consumer Movement in India – Rights & Responsibilities of consumers in India – Benefits of consumerism.	
II	**PSYCHOLOGICAL DETERMINANTS & CONSUMER BEHAVIOR:** (a) Motivation – Needs, Types, Theories – Role of Motivation in Consumer Behavior. (b) Personality & Attitude – Theories of Personalities & its Application. – Freudian, Trait, Jungian, Self-concept. (c) Formation of Attitude – Theories & its Relevance in Consumer Behavior. – Cognitive Dissonance. – Tricomponent. – Changing Attitude in Consumer Behavior.	12
III	**PERCEPTION AND CONSUMER BEHAVIOUR:** Introduction, meaning, nature, Importance and limitation of perception, Barriers to accurate perception, Sensation, perception of values, perception of process. Determining consumer buying Behaviour:- Consumer purchase decision, types of decision, types of decision behaviour, buying stage and situational influence, models of consumer behaviour- Economic model, learning model, sociological model, Howard Sheth model of buying.	12
IV	**SOCIAL CLASS AND GROUP INFLUENCES ON CONSUMER BEHAVIOR:** Introduction, nature of Social Class, Social Class Categories, Money and Other Status Symbols, Source of Group Influences, Types of Reference Groups, Nature of Reference Groups, reference Group Influences, Applications of Reference Group Influences, Conformity to Group Norms and Behavior, Family Life Cycle Stages, nature of Family Purchases and Decision-making, Husband-wife Influences, Parent-child Influences, Consumer Socialization of Children, word-of-Mouth Communications within Groups, opinion Leadership.	12
V	**CONSUMER DECISION MAKING PROCESS:** Outlet selection – Purchase and post Purchase Behaviour – Organisational Buyer Characteristics – Purchase and Demand patterns – Factors Influencing Organisational Buying Behaviour – Organisational Buying Decision Process – Organisational Buying Roles.	

Reference Books:

1. Suja. R. Nair, Consumer behavior and Marketing Research, Himalaya Publishing House, Mumbai.
2. Boyd, Westfall & starch, Marketing Research, text & cases, AITBS, New Delhi
3. G.C.Beri, Marketing Research, Tata McGraw Hill publishing company, New Delhi.
4. M.N.Mishra, Modern Marketing Research; First Edition, Himalaya Publishing House, Mumbai.
5. Malhotra, Marketing Research.
6. Sontakki; Consumer Behaviour.
7. Schiffman; Consumer Behaviour.
8. Batra/Kazmi; Consumer Behaviour.

COURSE - DSCIB-6.5: GENERAL INSURANCE BUSINESS

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objectives: To develop an understanding of the working of the insurance sector as it unfolds a lot of career opportunities. This necessitates students gain an insight into various facets of insurance sector.

Units	Topics	No. of Periods
I	**INTRODUCTION TO GENERAL INSURANCE:** Meaning of General Insurance – The Evolution and Growth of General Insurance – Types of General Insurance – Fundamentals of General Insurance – Recent innovations. Organization and Management of General Insurance Companies – Regulatory Framework for General Insurance in India.	12
II	**FIRE INSURANCE:** Standard policies – Fire Insurance coverage – Consequential loss (fire) Insurance policies – Declaration policies, Marine Insurance: Marine Cargo policies – Hull policies – Institute cargo clauses – Institute hull clauses – Open policies – Accumulation of risk per location -Motor Insurance: Types of policies – Third party Insurance – Comprehensive coverage – Conditions and Exclusions – premium.	14
III	**NON LIFE INSURANCES:** Personal Accident Insurance, Health Insurance and Mediclaim policies, Liability Insurance, Burglary Insurance other Miscellaneous Insurances, Rural Insurance covers, Engineering Insurance and its Consequential loss covers, Aviation hull and Aviation liability.	12
IV	**UNDERWRITING AND SETTLEMENT OF CLAIMS:** Proposal forms, Cover notes, Certificates of Insurance, Endorsements, Moral and Physical Hazards, Statistics Spreading of Risks, Premium Rating, Premium Loading.	10
V	**SETTLEMENT OF CLAIMS:** Claim procedure, TPAs: Claim forms, Investigation / Assessment, Essential Claim Documents, Settlement Limitation, Arbitration, Loss Minimization and Salvage.	12

Reference Books:

1. Insurance Institute of India – IC 34 – General Insurance
2. Insurance Institute of India – IC 45- General Insurance Underwriting
3. Module I, Principles and Practice of General Insurance, The Institute of Chartered Accountants of India: New Delhi.
4. H Narayanan, Indian Insurance: A Profile, Jaico Publishing House: Mumbai.
5. K.C. Mishra and G.E. Thomas, General Insurance - Principles and Practice, Cengage Learning: New Delhi

COURSE - DSCIB-6.6: INFORMATION TECHNOLOGY IN BANKING

Weekly Teaching Hours: 5 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: To make the students to get acquainted with the use of information technology in banking and cope up with changing requirements of the banking sector.

Units	Topics	No. of Periods
I	**INTRODUCTION TO E-BANKING:** Meaning, definition, features, advantages, and limitations - Evolution of e-banking in India, Legal framework for e-banking. Electronic Payment System Types of Electronic Payment Systems, Digital Token-based EPS, Smart Card EPS, Credit Card EPS, Risk in EPS, Designing a EPSE - banking Business Models Various models - home banking, office banking, online banking, internet banking, mobile banking, SMS banking,- models of electronic payments, other business models	14
II	**DATA MANAGEMENT:** Induction of Techno Management Development Life Cycle, Project Management, Building Data Centres, Role of DBMS in Banking, Data Warehousing and Data Mining, RDBMS Tools.	12
III	**BANKING TECHNOLOGY:** Technology in Banking Industry, Teleconferencing, Internet Banking, Digital Signature in Banking - MICR Facility for 'paper-based' clearing - Cheque Truncation	10
IV	**BANKING INNOVATIONS:** Technological Changes in Indian Banking Industry - Trends in Banking and Information Technology - Technology in Banking - Lead Role of Reserve Bank of India, New Horizons for Banking based IT, Automated Clearing House Operations, Electronic Wholesale Banking Credit Transfer, Credit Information Bureau (I) Ltd., Credit Information Company Regulation Bill- 2004, Automation in Indian Banks.	12
V	**RECENT TRENDS IN BANKING:** New Technology in banking - Core Banking, Home Banking, Mobile banking, Virtual banking, NEFT, RTGS, ECS, E-money, Electronic purse, and Digital cash - Dealing with Fraudulent transactions under CTS, Efficient customer service, smart quill computer pen, Institute for Development & Research in Banking & Technology (IDRBT).	12

Reference Books:

1. Gordon and Natarajan, Banking Theory Law and Practice, HPH
2. S. P Srivastava, Banking Theory and Practice, Anmol Publications
3. Tandan M.L, Banking Law and Practice in India, Indian Law House
4. Sheldon H.P, Practice and Law of Banking
5. K. Venkataramana, Banking Operations, SHBP
6. Kothari N. M, Law and Practice of Banking
7. Neelam C Gulati, Principles of Banking Management
8. Maheshwari. S.N, Banking Law and Practice, Vikas Publication
9. Shekar. K.C, Banking Theory Law and Practice, Vikas Publication
10. Dr. Alice Mani, Banking Law and Operation, SBH
11. Satyadevi, C., *Financial Services Banking and Insurance*, S.Chand
12. Suneja, H.R., *Practical and Law of Banking*, Himalya Publishing House
13. Chabra, T.N., *Elements of Banking Law*, Dhanpat Rai and Sons
14. Saxena, G.S; *Legal Aspects of Banking Operations*, Sultan Chand and Sons
15. Varshney, P.N., *Banking Law and Practice*, Sultan Chand and Sons.

COURSE - SEC-6.7: ENTERPRISE RESOURCE PLANNING

Weekly Teaching Hours: 2 | Examination Duration: 2 Hours
Credits: 1 | Maximum Marks: 50

Objective: To provide a contemporary and forward-looking on the theory and practice of Enterprise Resource Planning Technology and prepare the students to self-upgrade with the higher technical skills.

Units	Topics	No. of Periods
I	**INTRODUCTION TO ENTERPRISE RESOURCE PLANNING:** Introduction - Meaning and Definition of ERP, Need for Enterprise Resource Planning - Evolution of Enterprise Resource Planning - Risks and benefits –Fundamental technology of ERP - Issues to be considered in planning design and implementation of cross functional integrated ERP systems.	10
II	**ERP SOLUTIONS AND FUNCTIONAL MODULES:** Overview of ERP software solutions, Small, medium and large enterprise vendor solutions, Business process Re-engineering - Business process Management - Functional Modules - ERP Production planning module, purchasing module, ERP Inventory control module, ERP Sales module, ERP Marketing module, ERP Financial module and ERP HR module.	10
III	**ERP IMPLEMENTATION:** Planning Evaluation and selection of ERP systems - ERP Implementation life cycle - ERP Implementation methodologies - ERP project teams - vendors and consultants - Post Implementation activities and emerging trends on ERP.	10

Reference Books:

1. Enterprise Resource Planning: Alexis Leon, Tata McGraw Hill.
2. Enterprise Resource Planning: Diversified by Alexis Leon, TMH.
3. Enterprise Resource Planning: Ravi Shankar & S. Jaiswal, Galgotia
4. Enterprise Resource Planning: Concepts & Practices, by V.K. Garg & N. K. Venkatakrishnan, PHI
5. Enterprise wide Resource Planning: Theory & practice: by Rahul Altekar, PHI
6. Enterprise Resource planning: Jyotindra Zaveri, HPH

COURSE - SEC-6.8: INTERNSHIP PROGRAMME

Objective: To enable the students' to undergo in-plant training and understand the overall industrial system.

The students of the sixth semester should undergo 10 days intensive training in any organisation for the Internship Program preferably after completion of fifth semester and before commencement of sixth semester examinations. After the training programme they should prepare and submit the report covering functions of the industry and its contributions towards society. The internship programme should carry 50 marks, out of which 40 marks for the brief report on the in-plant training and 10 marks for the internal assessment. The concerned records should be kept in the college/department for at least six months, which should be produced to the university authorities as and when asked.

QUESTION PAPER PATTERN

Maximum Marks: 80 **Exam Duration: 3 Hours**

Section – A (10X2=20)

1. **Answer any ten sub questions, each sub question carries two marks**
   - **a.**
   - **b.**
   - **c.**
   - **d.**
   - **e.**
   - **f.**
   - **g.**
   - **h.**
   - **i.**
   - **j.**
   - **k.**
   - **l.**

Section – B (3X5=15)

Answer any three questions; each question carries five marks (in case of practical papers four problems and one theory question)

2.
3.
4.
5.
6.

Section – C (2X15=30)

Answer any two questions; each question carries fifteen marks (in case of practical papers three problems and one theory question)

7.
8.
9.
10.
11.

Section - D (1X15=15)

Compulsory question (Case study/problems)

12.

QUESTION PAPER PATTERN

Maximum Marks: 40 **Exam Duration: 2 Hours**

Section – A (5X2=10)

1. Answer any five sub questions, each sub question carries two marks
   a.
   b.
   c.
   d.
   e.
   f.
   g.

Section – B (2X5=10)

Answer any two questions; each question carries five marks

2.
3.
4.
5.

Section – C (2X10=20)

Answer any two questions; each question carries ten marks

6.
7.
8.
9.

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF

UNDER GRADUATE

BACHELOR OF COMMERCE

3rd & 4th Semestersw.e.f.

Academic Year 2021-22 and Onwards

Under

CHOICE BASED CREDIT SYSTEM (CBCS)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

Vidyasangama Bhootaramanhatti, Belagavi-591106

COURSE STRUCTURE

Bachelor of Commerce (CBCS)

Regular

(With Effect from Academic Year 2021-22)

	Course Code	Subject and Course	Teaching Hours	Examination Duration	End Semester Examination Marks	IA Marks	Total Marks	Total Credits
THIRD SEMESTER								
Part-I	AECC 3.1	MIL	4	3	80	20	100	3
	AECC 3.2	English	4	3	80	20	100	3
Part-II	DSC 3.3	Corporate Accounting-I	5	3	80	20	100	3
	DSC 3.4	Entrepreneurship Development	4	3	80	20	100	3
	DSC 3.5	Innovative Banking	4	3	80	20	100	3
	DSC 3.6	Quantitative Analysis for Business Decisions-I	5	3	80	20	100	3
Part-III	SEC 3.7	Practicals on Skill Development	2	2	40	10	50	1
Part-IV	SEC 3.8	E-Commerce	2	2	40	10	50	2
	CC/EA 3.9	Extra Co-curricular Activities	-	-	-	50	50	1
Total			**30**	**-**	**560**	**190**	**750**	**22**
FOURTH SEMESTER								
Part-I	AECC 4.1	MIL	4	3	80	20	100	3
	AECC 4.2	English	4	3	80	20	100	3
Part-II	DSC 4.3	Corporate Accounting-II	5	3	80	20	100	3
	DSC 4.4	Financial Management	4	3	80	20	100	3
	DSC 4.5	Business Laws	4	3	80	20	100	3
	DSC 4.6	Quantitative Analysis for Business Decisions-	5	3	80	20	100	3

		II						
Part-III	SEC 4.7	Practicals on Skill Development	2	2	40	10	50	1
Part-IV	SEC 4.8	Corporate Communication	2	2	40	10	50	2
	CC/EA 4.9	Extra Co-Curricular Activities	-	-	-	50	50	1
Total			**30**	**-**	**560**	**190**	**750**	**22**

Note:

1. The B.Com curriculum is divided into four parts and contains different courses, The courses have been named after **AECC:** Ability Enhancement Compulsory Course; **DSC:** Discipline Specific Course; **SEC:** Skill Enhancement Course; and **CC&EC:** Co-curricular and Extra-curricular Activities
2. A practical is a 'hands–on class' which allows students to apply the theories learnt in the class room. One hour practical class is equal to one hour theory class and the class is managed by a single teacher. Practical classes may be conducted in the Business Lab or in Computer Lab or in the class room depending on the requirement. Experienced and Competent subject teachers may be allotted the practical workload.
3. IA marks for practical on skill development subject shall be awarded on the basis of practical records submitted by the student and on the basis of internal assessment tests.
4. Co-curricular and Extra-curricular Activities: A student shall opt for one of the following activities offered in the college, in all the four semesters of the undergraduate programme. The activity carries a credit each and will be internally assessed for 50 marks. The activities may include a) N.S.S. / N.C.C b) Sports and Games c) Physical Education or Activities related to Yoga d) Field studies / Industry Inplant Training. e) Community work such as promotion of values of National Integration, Environment, Human rights and duties, Peace, Civic sense etc. f) A Small project work concerning the achievements of India in different fields g) Evolution of study groups/seminar circles on Indian thoughts and ideas. h) Computer assisted/web-based learning and e-library skills Evaluation of Co-curricular and Extra-curricular Activities shall be as per the procedure evolved by the university from time to time.
5. MIL and English are studied as per the circulations made by university from time to time. The contents of the syllabus and question papers pattern are also circulated from the university.

B.COM. THIRD SEMESTER

COURSE - DSC-3.3: CORPORATE ACCOUNTING - I

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of this course is to familiarize students with accounting provisions under Companies Act and their application.

Units	Topics	No. of periods
I	**ISSUE OF SHARES AND DEBENTURES:** Share Capital - Subdivision of Share Capital - Issue of Shares - Pricing of Public Issue – Fixed Price offer method - Book-building method –Journal entries for Issue of Shares - when payable fully on application and when payable in installments - if shares are issued at par - at premium and at discount- Calls-in-arrears and Calls-in-advance - Forfeiture and Re-issue of Shares. **Debentures:** Meaning & Types of Debentures - Provisions for Issue of Debentures under Companies Act, 2013 - Accounting entries for issue of Debentures.	12
II	**UNDERWRITING OF SHARES AND DEBENTURES**: Meaning of Underwriting - SEBI regulations regarding underwriting - Underwriting commission - Types of underwriting agreement - conditional and firm - Determination of Liability in respect of underwriting contract - When fully underwritten and partially underwritten - with and without firm underwriting.	10
III	**MANAGERIAL REMUNERATION**: Meaning – Provisions under Schedule V of Companies Act regarding Managerial Remuneration - Overall maximum managerial remuneration - Calculation of Net Profit for Managerial Remuneration - Simple Problems on calculation of remuneration payable.	8
IV	**FINANCIAL STATEMENTS OF COMPANIES:** Components of Financial Statements – Statement of Profit and Loss and Balance Sheet as per Schedule III of Companies Act, 2013 – Main features of Schedule III – Format and Content of Statement and Profit and Loss and Balance Sheet according to Schedule III - Problems on preparation of Financial Statements - Treatment for typical adjustments – depreciation - interest on debentures - tax deducted at source - advance payment of income tax - provision for taxation and dividends.	16
V	**VALUATION OF GOODWILL AND SHARES:** **Valuation of Goodwill:** Meaning – Circumstances of Valuation of Goodwill - Factors influencing the value of Goodwill – Methods of Valuation of Goodwill: Average Profit Method - Super Profit Method - Capitalization of average Profit Method - Capitalization of Super Profit Method - Annuity Method – Problems; **Valuation of Shares:** Meaning – Need for Valuation – Factors Affecting Valuation – Methods of Valuation: Intrinsic Value Method - Yield Method - Problems.	14

Reference Books:

1. Hanif and Mukherjee, Corporate Accounting, McGraw Hill Publishers
2. S P Jain and K. L. Narang, Financial Accounting, Kalyani Publication
3. S Anil Kumar, V Rajesh Kumar and B Mariyappa, Corporate Accounting, HPH
4. S.N. Maheswari, Financial Accounting, Vikas Publication
5. Soundrajan & K. Venkataramana, Financial Accounting, SHBP.
6. A Bannerjee; Financial Accounting.
7. Janardhanam: Advanced Financial Accounting, Kalyani Publishers
8. Radhaswamy and R.L. Gupta, Advanced Accounting, Sultan Chand.
9. M.C. Shukla and Grewal, Advanced Accounting.

COURSE - DSC-3.4: ENTREPRENEURSHIP DEVELOPMENT

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of this course is to help students to understand the entrepreneurial culture and industrial growth to develop entrepreneurial skills.

Units	Topics	No. of Periods
I	**INTRODUCTION TO ENTREPRENEURSHIP**: Evolution of Entrepreneurship – Introduction to the concept of Entrepreneurs- Entrepreneurship and Enterprise - Reasons for growth of Entrepreneurship - Characteristics and Classification of Entrepreneurs– Intrapreneurs- Women Entrepreneurs - Problems and Challenges; Competency requirement for entrepreneurs.	12
II	**ENTREPRENEURSHIP DEVELOPMENT:** Concept – Objectives – Process – EDP in India – Problems and measures - Institutions involved in Entrepreneurship Development – NIESBUD - TCOs – CEDOK – SFCs and KVIC	8
III	**ENTREPRENEURSHIP STIMULATION:** Concept - Public and private system of stimulation - Support and sustainability of entrepreneurship –Requirement - Availability and access to finance - Marketing assistance – Technology and industrial accommodation - Role of industries/entrepreneur's associations and self-help groups - Business incubators - Concept - Role and functions - Angel investors - Venture capital and private equity fund.	10
IV	**RURAL ENTREPRENEURSHIP:** Concept - Rural Entrepreneurial Environment - Problems of Rural Entrepreneurs - Schemes for Rural Entrepreneurship Development - TRYSEM - DOWCRA - Stories of successful Entrepreneurs - Ratan Tata - Dhirubai Ambani - Narayan Murthy - Azim Premji - Laxmipathi Mittal.	12
V	**GOVERNMENT SUPPORT FOR ENTREPRENEURSHIP:** Start-up India - Make in India - Atal Innovation Mission (AIM) - Support to Training and Employment Programme (STEP) - Jan Dhan - Aadhaar - Mobile (JAM) - Digital India - Trade Related Entrepreneurship Assistance and Development (TREAD) - Pradhan Mantri Kausalya Vikas Yojana (PMKVY) - National Skill Development Mission (NSDM). (Concepts only)	8

Reference Books:

1. Tandon B.C: Environment and Entrepreneur; Chugh Publications, Allahabad.
2. Siner A David: Entrepreneurial Mega books; John Wiley and Sons, NewYork.
3. Srivastava S. B: A Practical Guide to Industrial Entrepreneurs; S. Chand, New Delhi.
4. Prasanna Chandra: Project Preparation, Appraisal, Implementation; TMH, New Delhi
5. Kuratko and Rao, *Entrepreneurship: A South Asian Perspective,* Cengage Learning.
6. Robert Hisrich, Michael Peters, Dean Shepherd, *Entrepreneurship,* McGraw-Hill Education.
7. Desai, Vasant. *Dynamics of Entrepreneurial Development and Management*. Mumbai, Himalaya Publishing House.
8. Dollinger, Mare J. *Entrepreneurship: Strategies and Resources*. Illinois, Irwin.
9. Holt, David H. *Entrepreneurship: New Venture Creation*. Prentice-Hall of India, New Delhi.
10. Singh, Nagendra P. *Emerging Trends in Entrepreneurship Development*. New Delhi
11. S. S. Khanka, *Entrepreneurial Development,* S. Chand & Co, Delhi.
12. Hifrich, Manimala, Peters & Shepherd, *Entrepreneurship,* McGraw-Hill
13. Kumar Arya, Entrepreneurship, Pearson
14. Bamford and Bruton, Entrepreneurship, McGraw Hill

COURSE - DSC-3.5: INNOVATIVE BANKING

Weekly Teaching Hours: 4 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: The objective of this course is to familiarize the students with the operations and innovations in Banking Sector.

Units	Topics	No. of Periods
I	**INTRODUCTION TO BANKING:** Evolution of Banking - Global and Indian Level - Meaning of Bank and Banking - Composition of Indian Banking - Significance and Functions viz. Primary - Secondary and Modern Functions - Recent trends in Banking - Housing, Education and Vehicle loans - Non-Performing Asset (NPA): Meaning - circumstances & impact - Government Regulations on Priority lending for commercial banks - Ethics in Banking Sector.	12
II	**CUSTOMER AND BANKER RELATIONSHIP:** Customer – Meaning – Types of Bank Accounts - Common Procedure of Opening Accounts - Relationships between Banker and Customer (General – Primary - Subsidiary and Special) - Rights and Obligations of Banker and Customer viz. Honouring and Dishonouring of Cheques - Consequences of Wrongful Dishonour and Damages – Duty of Secrecy and Consequences of Unjustified Disclosure – Garnishee Order and Rights and Duties on Receipt of Order.	10
III	**CHEQUES:** Meaning – Essentials – Advantages - Parties – Types – Dating – Crossing and Types - Opening of Crossing – Obliteration – Cancellation of Crossing – Mutilation – Material Alteration – Stop Payment - Negotiation of Cheques i.e. By Delivery and Endorsement and Types of Endorsement – MICR - IFSC Code.	8
IV	**EMPLOYMENT OF BANK FUNDS:** Banks and Liquidity - Types of Liquidity - Modes of Advancing - Consideration of Sound Lending - Factors Limiting Level of Advances - Lien - Pledge - Hypothecation - **Mortgage:** Meaning - Types - Rights - Asset Classification - Capital Adequacy Norms - Disclosure Standards.	10
V	**e-BANKING AND INTERNET BANKING:** Meaning and Definition – Traditional v/s e-Banking – Advantages and Disadvantages of e-Banking - Facets of e-Banking – Significance of e-Banking – Limitations of e-Banking; **e-Wallet:** Meaning, Types of e-Wallets and Procedure of making E-Payments (i.e. OLB – ATM – EFT - Internet Banking - Debit and Credit Cards – EDI - Mobile Banking - Core Banking - Anywhere Banking - BHIM, PAYTM, GOOGLE PAY (TEZ), PHONE PE (Concepts only).	10

Reference Books:

1. Banking Theory & Practice-S. P Srivastava, Himalaya Publishing House
2. Introduction to Banking- Vijaya Raghavan Iyengar, Excel Publication
3. Law and Practice of Banking- Reddy and Appannaiah, Himalaya Publishing House
4. Banking Law & Practice- B.S.Raman, United Publishers
5. Banking Law and Practice in India -Tannan M.L. Indian Law House
6. Practice and Law of Banking-Sheldon H.P
7. Law and Practice of Banking- K.C.Shekhar
8. Law and Practice of Banking-Radha Krishnana and Vasudevan
9. Banking Law and Practice- Maheshwari S.N., Vikas Publication
10. Law and Practice of Banking- Gajendra and Poddar

COURSE - DSC-3.6: QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS - I

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To develop the students' ability to deal with numerical and quantitative issues in business with understanding of statistical applications in Business Decisions.

Unit	Topics	No. of periods
I	**INTRODUCTION TO QUANTITATIVE ANALYSIS:** Introduction to Quantitative Analysis - Meaning and Definition of Quantitative Techniques - Classification of QT - Programming QT - Statistical QT - Mathematical QT - Role and Uses of QT in Business Decisions - Functions of QT - Scope of QT - Methodology of QT - Limitations of QT.	**10**
II	**APPLICATIONS OF STATISTICAL QUANTITATIVE TECHNIQUES:** Meaning of Averages - Types of Averages - Mathematical Averages - AM – GM and HM - Positional Averages – Median – Mode - Weighted AM - Standard Deviation - Coefficient of Variation - Problems relating to Speed and Work.	**12**
III	**CORRELATION AND REGRESSION ANALYSIS:** Meaning of correlation - Types of correlation - importance of correlation analysis in business decision - Methods of measuring correlation - Karl Pearson's coefficient of correlation - Spearman's rank correlation coefficient - **Regression Analysis:** Meaning - Regression lines Y on X and X on Y (including problems on estimation of mean and correlation from regression line)	**14**
IV	**TIME SERIES:** Meaning of Time Series - Components of Time series - Importance of Time Series in Business decision - Methods of measuring trend values - Moving averages (3, 4, 5 yearly only) - Methods of Least squares (Fitting of straight line only Y = a+bX)	**12**
V	**STATISTICAL QUALITY CONTROL (SQC):** Introduction - Concepts of SQC - Control charts and their uses - Control limits for mean and range P and C charts problems and Interpretations.	**12**

Reference Books:

1. Fundamentals of statistics: S. C. Gupta
2. Business Statistics: S. P. Gupta
3. Business Statistics: A. P. Verma
4. Fundamentals of statistics: A. M. Gun, M. K. Gupta and B. Dasgupta

COURSE - DSC-3.7: PRACTICALS ON SKILL DEVELOPMENT

Weekly Teaching Hours: 2 | Examination Duration: 2 Hours
Credits: 1 | Maximum Marks: 50

Objective: To enable the students' to learn and develop the overall skills through visiting entities/organizations with practical exposure.

Units	Topics
I	**PRACTICALS ON CORPORATE ACCOUNTING-I:** • Visit any company/stock broking agency and collect share application form and fill the contents. • List out the SEBI guidelines for underwriting of shares and debentures. • Collect the financial statements of a company, prepared as per Schedule-III of Companies Act 2013, and analyze. • Collect the balance sheet of a company and calculate value of share using intrinsic value method • Calculate the maximum managerial remuneration payable with imaginary figures.
II	**PRACTICALS ON ENTREPRENEURSHIP DEVELOPMENT:** • Visit to small-scale industry and prepare a SWOC analysis report. • Draft the success stories of business entrepreneurs in your region. • List out at least ten successful entrepreneurs in Karnataka. • List out the problems of rural entrepreneurs • List out the government support schemes for the entrepreneurship.
III	**PRACTICALS ON INNOVATIVE BANKING:** • Collect and fill the application form for opening a Bank Account. • Draw a specimen of Cheque with MICR technology • Draw the specimen of Debit or Credit Card • Collect and fill the form of RTGS/NEFT • Study of any two e-wallet organizations
IV	**PRACTICALS ON QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS-I:** • List out the quantitative techniques used for decision making. • Collect the marks scored by 50 students in a subject and calculate mean/median/mode • Collect age statistics of 10 newly married couples and calculate correlation. • Collect the sales/production data for five years and forecast sales/production for the future. • Narrate the process of testing and quality control in textile manufacturing.

COURSE - SEC-3.8: E-COMMERCE

Weekly Teaching Hours: 2 | Examination Duration: 2 Hours
Credits: 2 | Maximum Marks: 50

Objective: To facilitate the students to gain knowledge about different aspects of e-commerce and trends in commerce

Unit	Topics	No of Periods
I	**INTRODUCTION TO E-COMMERCE**: E-Commerce - meaning, nature, concepts - types; e- commerce business models B2B concept - major activities - types of B to B market (independent, buyer oriented, supplier oriented - e- market place, B2C portals, e-tailor - content provider - transaction broker - real life examples of B2C, C2C, C2B, etc.; forces behind e-commerce - e-Governance meaning - types - significance - real life examples.	10
II	**TRENDS IN E-COMMERCE:** Methods of e-payments Debit Card, Credit Card, Smart Cards, e-Money, electronic or digital wallet, digital signature (concepts), payment gateways Core Banking Solution or CBS, Mobile Payment, UPI, NCPI, International Payments - Social Commerce - Digital Marketing - E-CRM – SCM.	10
III	**COMPUTER APPLICATIONS IN BUSINESS:** Word Opening Screen Elements, Creating, Opening and Saving of Word Document, Formatting, Margin, Paper Selection, Undo-Redo, Spell Check, Alignment, Insert Table, Mail Merge; MS-Word Shortcut Keys. Features, Advantages, MS-Excel Program, Window Elements, Managing Workbooks, Create, Open, Save and Close, Managing, Worksheets - Naming, Inserting, Moving, Coping and Deleting. Navigation in MS-Excel; Standard Toolbar Elements; Types of Cell Data etc.	10

Reference Books:

1. P. T. Joseph, E-Commerce: An Indian Perspective, PHI Learning
2. Henry Chan, Raymond Lee and others, E-Commerce: Fundamentals and Applications
3. Wiley, Landon, E-Commerce, Pearson Education India
4. Schneider G., E-Business, Cengage Publications
5. Bhaskar, B., E–Commerce, McGraw Hill

B.COM. FOURTH SEMESTER

COURSE - DSC-4.3: CORPORATE ACCOUNTING-II

Weekly Teaching Hours: 5 Examination Duration: 3 Hours
Credits: 3 Maximum Marks: 100

Objective: The objective of this course is to make the students familiar with the accounting provisions under Companies Act, 2013 and as per Accounting Standards.

Units	Topics	No. of Periods
I	**REDEMPTION OF PREFERENCE SHARES:** Provisions for Issue and Redemption of Preference Shares under Companies Act, 2013; Conditions for Redemption of Preference Shares; Methods of Redemption – Out of Fresh issue of Shares - out of Capitalization of Undistributed Profits - out of Combination of Fresh Issue and Capitalization of Undistributed Profits –Treatment for Premium on Redemption and Capital Redemption Reserve – Problems.	10
II	**REDEMPTION OF DEBENTURES**: Meaning of Redemption of Debentures - Rules for Redemption of Debentures - Accounting Entries for Redemption of Debentures – when there is no Sinking Fund and when there is Sinking Fund – if Redemption is by Payment of Lump Sum – by Payment in Annual Installments – by Purchase in Open Market and by Conversion into Shares.	14
III	**AMALGAMATION OF COMPANIES:** Introduction – Meaning of Amalgamation; Types of Amalgamation – Amalgamation in the nature of Merger and Amalgamation in the nature of Purchase; Calculation of Purchase Consideration; Methods of Accounting for Amalgamation – Pooling of Interests Method and Purchase Method - Journal Entries and ledger accounts in the books of vendor Company and opening entries and balance sheet in the books of purchasing company (purchase method only)	16
IV	**INTERNAL RECONSTRUCTION AND CAPITAL REDUCTION**: Meaning of Capital Reduction – Objectives of Capital Reduction – Provisions for Reduction of Share Capital under Companies Act, 2013 - Forms of Reduction - Accounting for Capital Reduction - Problems on Passing Journal Entries - Preparation of Capital Reduction Account and Balance sheet after reconstruction.	10
V	**LIQUIDATION OF COMPANIES:** Meaning of Liquidation/Winding up – Modes of Winding up – Compulsory Winding up- Voluntary Winding up and Winding up subject to Supervision by Court - Order of payments in the event of Liquidation-preferential creditors – contributories - Liquidator's final Statement of Account - Problems on preparation of Liquidator's Statement of Account.	10

Reference Books:

1. Hanif and Mukherjee, Corporate Accounting, Mc Graw Hill Publishers
2. S P Jain and K. L. Narang, Financial Accounting, Kalyani Publication
3. Dr. S.N. Maheswari, Financial Accounting, Vikas Publication
4. Soundrajan & K. Venkataramana, Financial Accounting, SHBP.
5. A Bannerjee; Financial Accounting.
6. Dr. Janardhanan: Advanced Financial Accounting, Kalyani Publishers
7. Radhaswamy and R.L. Gupta, Advanced Accounting, Sultan Chand
8. Dr. S Anil Kumar, Dr. V Rajesh Kumar & Dr. B Mariyappa, Advanced Corporate Accounting, HPHM.
9. C. Shukla and Grewal: Advanced Accounting.

COURSE - DSC-4.4: FINANCIAL MANAGEMENT

Weekly Teaching Hours: 4 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: The objective is to enable students to understand the basic concepts of Financial Management and the role of Financial Management in decision-making.

Units	Topics	No. of Periods
I	**INTRODUCTION TO FINANCIAL MANAGEMENT**: Introduction – Meaning of Finance – Business Finance – Finance Functions - Organization structure of Finance Department - Financial Management – Goals of Financial Management – Financial Decisions – Role of a Financial Manager – Financial Planning – Steps in Financial Planning – Principles of Sound Financial Planning – Factors influencing a sound financial plan.	10
II	**TIME VALUE OF MONEY:** Meaning – Need - Future Value (Single Flow - Uneven Flow and Annuity) - - Present Value (Single Flow - Uneven Flow and Annuity) - Doubling Period - Concept of Valuation - Valuation of Bonds - Debentures and Shares - Simple Problems	10
III	**FINANCING AND DIVIDEND DECISION:** **Financing Decision:** Meaning of Capital Structure - Factors Influencing Capital Structure - Optimum Capital Structure– EBIT- EPS Analysis - Leverages – Problems. **Dividend Decision**: Meaning and Determinants of Dividend Policy - Types of Dividends - Bonus shares (Concepts only).	14
IV	**INVESTMENT DECISION:** Meaning and Scope of Capital Budgeting- Features and Significance - Techniques: Payback Period - Accounting Rate of Return - Net Present Value - Internal Rate of Return and Profitability Index with Simple Problems.	16
V	**WORKING CAPITAL MANAGEMENT:** Concept of Working Capital - Significance of Working Capital - Types of Working Capital – Effects of Excess or Inadequate Working Capital – Determinants of Working Capital – Sources of Working Capital- Estimation of Working Capital Requirements (Simple Problems).	10

Reference Books:

1. Dr. V Rajeshkumar and Nagaraju V - Financial Management MH India
2. I M Pandey, Financial Management. Vikas Publication
3. Khan and Jain, Financial Management, TMH
4. P.K Simha – Financial Management
5. Prasanna Chandra, Financial Management, TMH
6. S N Maheshwari, Financial Management, Sultan Chand
7. G. Sudarshan Reddy, Financial Management, HPH
8. Dr. Aswathanarayana T. – Financial Management, VBH
9. Sharma and Sashi K. Gupta, Financial Management, Kalyani Publication
10. B. Mariyappa; Financial Management, HPH

COURSE - DSC-4.5: BUSINESS LAWS

Weekly Teaching Hours: 4 Examination Duration: 3 Hours

Credits: 3 Maximum Marks: 100

Objective: To acquaint the students with Business Laws and their interpretation and help them to apply basic principles of Business Laws to solve practical problems.

Units	Topics	No. of Periods
I	**LAW OF CONTRACT – 1872:** Meaning – Definition - Essentials of a Valid Contract- Classification of Contracts - Meaning and Essentials of (i) Offer and Acceptance (ii) Capacity of Parties to Contract (iii) Consideration (iv) Free Consent (v) Legality of Object (vi) Agreements Declared Void - Discharge of Contract - Remedies for Breach of Contract - Quasi Contracts	12
II	**CONSUMER PROTECTION ACT- 2019:** Meaning – Features – Rights of consumers – Redressal Agencies; District, State and National.	8
III	**COMPETITION ACT-2002:** Introduction to competition Act – Objectives - Features – CAT, offences and penalties under the act.	10
IV	**INTELLECTUAL PROPERTY RIGHTS:** Background- Meaning- Definition of Terms- Objectives-Duration of IPR-Scope (i) Copyright-Meaning (ii) Patents-Meaning (iii) Trademark-Meaning (iv) Designs-Meaning (v) Geographical Indications of Goods-Meaning and Examples.	10
V	**ENVIRONMENT AND CYBER LAW:** **Environment Protection Act 1986** – Objectives of the Act, Definitions of Important Terms - Environment, Environment Pollutant - Environment Pollution - Hazardous Substance and Occupier - Types of Pollution - Powers of Central Government to protect Environment in India. **Cyber Law:** Definition, Introduction to Indian Cyber Law - Cyber space and Cyber security - Types of Crimes - Punishment.	10

Reference Books:

1. Business Laws - N.D. Kapoor, Sultan Chand and Sons, New-Delhi
2. Business Laws - Balchandani, Himalaya publishing House, Mumbai
3. Business Laws - M.C. Kuchhal, Vikas Publication, New-Delhi
4. Business Laws - S.S.Gulshan
5. Business Laws - Garg, Chawla and Sarina Sharma, Kalyani Publications
6. Business Laws - RSN Pillai and Bhagawati, S.Chand Publications
7. Business Laws - D.A. Pomeroy, South Western Publications
8. Business Laws - Anderson and Others
9. Business Laws – Dr. S.O. Halasagi and Dr. S.O. Halasagi, Onkar Prakashan, Kagwad.

COURSE - DSC-4.6: QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS-II

Weekly Teaching Hours: 5 | Examination Duration: 3 Hours
Credits: 3 | Maximum Marks: 100

Objective: To develop the students' ability to deal with numerical and quantitative issues in business with proper understanding of statistical applications in Business Decisions.

Units	Topics	No. of periods
I	**THEORETICAL PROBABILITY DISTRIBUTION:** Introduction to Theoretical Distribution - Binomial Distribution – Assumptions– Properties - Mean and Variance of BD - PMF of BD; Poisson Distribution - Properties - Mean and Variance - PMF of PD; Normal Distribution - Meaning - Properties - PDF of Normal Distribution; Problems on BD, PD and ND (without fitting)	**14**
II	**ASSIGNMENT PROBLEM:** Introduction to Assignment Problem - Meaning of AP -uses of AP in business decision - types of AP - Balanced Assignment Problem and Unbalanced Assignment problem - Maximization AP – Travelling Salesman AP.	**10**
III	**TRANSPORTATION PROBLEM:** Meaning – Definition - Statement of TP - basic feasible solutions - Degenerate solution - Non Degenerate solution - Balanced and Unbalanced T.P. - Finding Initial Feasible solutions by North West Corner rule Method (NWCR) – Matrix Minima Method (MMM) or Least Cost Method - Vogel Approximation Method (VAM) - Calculation of total transportation cost.	**10**
IV	**DECISION THEORY:** Introduction - Meaning and Definition - Concepts of Acts - State of nature - payoff table - opportunity loss - Decision making environment - Decision making under uncertainty - Non Probabilistic Criteria - Maximax criteria - Maximin criteria - Minimax regret criteria - Laplace criteria - Hurwicz criteria - Probabilistic Criteria - Expected Monetary Value (EMV) -Expected Opportunity Loss (EOL) - Expected value of perfect information (EVPI).	**12**
V	**BUSINESS FORECASTING:** Meaning – Role of forecasting in business – Steps in forecasting – Forecasting models – Qualitative models – Quantitative models- Time Series and Casual Models – Theories of business forecasting – Cautions while doing forecasting.	**12**

Reference Books:

1. Fundamentals of statistics: S. C. Gupta
2. Business Statistics: S. P. Gupta
3. Operation Research: P. C. Tulsian
4. Operation Research: Kalavathy

COURSE - DSC-4.7: PRACTICALS ON SKILL DEVELOPMENT

Weekly Teaching Hours: 2 | Examination Duration: 2 Hours
Credits: 1 | Maximum Marks: 50

Objective: To enable the students' to learn and develop the overall skills through visiting entities/organizations with practical exposure.

Units	Topics
I	**PRACTICALS ON CORPORATE ACCOUNTING-II:** • State the provisions for redemption of preference shares under companies act 2013 • List out at least 10 latest mergers and acquisitions in Indian corporate sector. • Prepare with imaginary figures, a Realisation Account in the books of vendor Company in the case of amalgamation or acquisition. • State the provisions for internal reconstruction under companies act 2013 • Prepare the 'Liquidator's Final Statement of Account' with imaginary figures.
II	**PRACTICALS ON FINANCIAL MANAGEMENT:** • Draw the Organizational Structure of Finance function of any Indian company. • Show the calculation of Future Value and Present Value for Annuity and Perpetuity using imaginary data. • Demonstrate EBIT-EPS Analysis with imaginary figures and calculate all the three types of leverages. • Visit the websites of top Indian companies and collect the information with respect to dividend decisions. • Estimate the working capital requirements for a manufacturing company using imaginary figures.
III	**PRACTICALS ON BUSINESS LAWS:** • Make a chart showing different types of contracts • List out any 10 latest consumer complaints reported to the forums • Prepare the format of copyright agreement, patents and trademark agreement. • Visit the pollution control board and list the measures undertaken for pollution control • Visit the police station handling cyber crimes and list out five latest cyber crimes
IV	**PRACTICALS ON QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS-II:** • List out the situations where probability theory can be applied in business • State the process of solving Assignment Problem • Solve the transportation problem to find basic feasible solution by using NWCR/MMM/VAM with imaginary figures • Draw a flow chart of decision theory with imaginary data • Prepare a list of precautions considered for business forecasting

COURSE - SEC-4.8: CORPORATE COMMUNICATION

Weekly Teaching Hours: 2 | Examination Duration: 2 Hours
Credits: 2 | Maximum Marks: 50

Objective: To create awareness among students about corporate Communication and drafting skills

Units	Topics	No. of Periods
I	**PERSONAL AND SECRETARIAL CORRSPONDENCE:** Letters calling candidates for written test – Drafting interview letters – Offer of appointment – Order of appointment – Show cause notices – Letter of dismissal and discharge. Correspondence with shareholders and debenture holders relating to dividends and interest – Transfer and transmission of shares.	10
II	**INTERNAL COMMUNICATION AND PUBLIC RELATIONS:** Internal memos – Office circulars – Office orders – Communication with regional/ branch offices. **Public Relations**: Meaning, importance and elements - Corporate brand building – Image management – Event management and Media Management.	10
III	**MODERN COMMUNICATION DEVICES:** Internet – Teleconferencing – Mobile phones – Computers – Laptops – Close circuit TVs – Desktop publishing – Electronic mail (e-mail) – SMS Messages – Audio conferencing – Video conferencing – Printing – Electronic storage devices.	10

Reference Books:

1. R. O. Sharma and Krishna Mohan: Business Communication and Report writing, TMH
2. Raman S and Swami R: Business Communication – A practical Approach, Professional publications Madras.
3. Ramesh and Pattanshetti: Effective Business English and Corresspondence.
4. Balasubramanyam: Business Communication Vikas Publishing House, New Delhi
5. Randall E. Mogors: Business Communication - Harper and Row, New York
6. Kaul: Effective Business Communication Prentice Hall, New Delhi
7. Patri V.R.: Essentials of Communication - Greenspan Publications, New Delhi
8. Taylor and Shirley: Model Business Letters -, Pearson Education Asia, New Delhi
9. S.O.Halasagi and Dr. S.O. Halasagi: Business Communication - Onkar Prakashan, Kagwad.

QUESTION PAPER PATTERN

Maximum Marks: 80 **Exam Duration: 3 Hours**

Section – A (10X2=20)

1. **Answer any ten sub questions, each sub question carries two marks**
   - **a.**
   - **b.**
   - **c.**
   - **d.**
   - **e.**
   - **f.**
   - **g.**
   - **h.**
   - **i.**
   - **j.**
   - **k.**
   - **l.**

Section – B (3X5=15)

Answer any three questions; each question carries five marks (in case of practical papers four problems and one theory question)

2.
3.
4.
5.
6.

Section – C (2X15=30)

Answer any two questions; each question carries fifteen marks (in case of practical papers three problems and one theory question)

7.
8.
9.
10.
11.

Section - D (1X15=15)

Compulsory question (Case study/problems)

12.

QUESTION PAPER PATTERN

Maximum Marks: 40 **Exam Duration: 2 Hours**

Section – A (5X2=10)

1. Answer any five sub questions, each sub question carries two marks
   a.
   b.
   c.
   d.
   e.
   f.
   g.

Section – B (2X5=10)

Answer any two questions; each question carries five marks

2.
3.
4.
5.

Section – C (2X10=20)

Answer any two questions; each question carries ten marks

6.
7.
8.
9.

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

ECONOMICS

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

CBCS Based Syllabus Course Structure for B.A (UG)

in Economics (Optional) (W.e.f. 2020-21 Onwards)

Semester	Code/ Course	Paper No	Title of the Paper	Teaching Hours/ Week	Credits	Marks			Duration of Sem End Exam
						IA	Sem End Exam	Total	
I	DSC 1	1	Micro Economics	5	3	20	80	100	3
II	DSC 2	2	Macro Economics	5	3	20	80	100	3
III	DSC 3	3	Public Economics	5	3	20	80	100	3
	SEC 1	4	Statistics for Economics	2	2	10	40	50	2
IV	DSC 4	5	International Economics	5	3	20	80	100	3
	SEC 2	6	Human Resource Management	2	2	10	40	50	2
V	DSE 1	7	1) Indian Economy	4	4	20	80	100	3
		7.1	2) Monetary Economics OR 3) Rural Development	4	4	20	80	100	3
	SEC 3	8	Financial Institutions and Markets	2	2	10	40	50	2
VI	DSE 2	9	1) Development Economics	4	4	20	80	100	3
		9.1	2) Environment Economics OR 3) Industrial Economics	4	4	20	80	100	3
	SEC 4	10	Economics of Tourism	2	2	10	40	50	2
				44	36				

BA ECONOMICS

FIRST SEMESTER

Paper No. 1 (DSC 1) : Micro Economics

Objectives: The objectives of this paper are to familiarize the students with economic behaviour of consumers and producers, and production, cost and revenue functions and the determination of price and output in different markets, and to theories relating to rent and profits.

Unit-I : Introduction to Micro Economics

Meaning, Scope, Types – Importance and Limitations; Methodology in economics; Choice as an economics problem; Law of Scarcity and Supply frame work, Production Possibility Curve.

Unit-II: Theory of Consumer's Behaviour

Demand-Meaning, Determinants and Law of Demand; Elasticity of Demand – Demand Forecasting ; Supply-Meaning, Determinants and Law of Supply; Elasticity of Supply; Theory of Consumer Behaviour- Marginal Utility Analysis -Theory of Indifference Curve and Its Properties; Consumers' Price Effect, Income Effect and Substitution Effect; Inferior Goods and Giffen Goods.

Unit-III: Production, Costs and Revenue

Production Function- Short-run and Long-run; Law of Variable Proportions; Returns to scale; Characteristics of Isoquants and Isocost line; Cost Function- Different Concepts of Costs, Short-run and Long run Cost Analysis; Least cost combination of factors; Break-even- analysis.

Unit-IV: Market Structure and Product Pricing

Concepts of Total, Average and Marginal Revenue; Perfect Competition-Equilibrium of the Firm and Industry; Monopoly-Equilibrium of the firm, Price discrimination; Monopolistic Competition-, Short- run and Long-run Equilibrium of the Firm and Group Equilibrium; Oligopoly- Features and Types of Oligopoly.

Unit-V: Factor Pricing and Distribution

Wage Determination, Marginal Productivity Theory of Distribution; Ricardian and Modern Theories of Rent, Quasi-rent;; Theories of Profit-Dynamic Theory, Risk and Uncertainty Theory and Schumpeterian Theory of Profit**.**

References:

1) Ahuja, H.L. (2017): Modern Micro Economics, S. Chand & Company Ltd New Delhi
2) Dwivedi, D. N. (2016): Micro Economics Theory and Applications, 3rd Edition, Vikas Publishing.
3) Jhingan, M. L. (2017): Micro Economic Theory, Vrinda Publication, Pvt, Delhi.
4) Koutsoyiannis A. (2003): Modern Micro Economics, 2nd Edition, Macmillan London
5) Pindyck, R. S. and D.L. Rubinfeld (2000): Microeconomics, 3rd Edition, Prentice Hall, India.
6) Seth, M.L. (1985): Micro Economics, Lakshmi Narain Agrawal Publisher, Agra.
7) Varian, Hal R. (2010): Micro Economic Analysis, W.W. Norton & Company, New York.

SECOND SEMESTER

Paper No. 2 (DSC 2) : Macro Economics

Objectives: The objectives of this paper are to acquaint the students with the behaviour of macro economics variables; to provide knowledge of national income accounts, classical macro economics, the Keynesian economics, business cycles and inflation.

Unit - I: Introduction to Macro Economics

Meaning, Scope and Importance of Macro Economics; National Income Accounting: Concepts of National Income- GDP, GNP, NNP, National Income at Factor Cost, PI, DPI, PCI**;** Methods and Difficulties in Measuring National Income; Circular Flow of Income

Unit- II: Classical Theory of Employment

Classical Theory of Employment-Assumptions and Full-employment Equilibrium; Say's Law of Market; Wage-Price Flexibility, A.C. Pigou's Reformulation.

Unit-III: Keynesian Economics

Keynesian Theory of Employment- Concept of Effective Demand and its Determinants; Consumption Function - Average Propensity to Consume and Marginal Propensity to Consume and Factors Determining Consumption Function; Saving Function - Average Propensity to Save and Marginal Propensity to Save; Determinants of Savings; Investment Function - Marginal Efficiency of Capital and Factors Influencing the MEC.

Unit-IV: Theory of Multiplier and Accelerator

Multiplier- Meaning, Working and Limitations; Accelerator- Meaning, Working and Limitations.

Unit- V: Business Cycles and Inflation

Business Cycles- Meaning, types of the business cycle, features of the business cycle, phases of business cycle; Control of Business Cycles.

Definitions of Inflation, Causes of Inflation, Types of Inflation-demand push inflation and cost push inflation; inflationary gap; Effects of Inflation, Measures to control Inflation.

References:

1) Ahuja, H. L. (2013): Macro Economics Theory & Policy, 19th Edition, S. Chand & Company Ltd, New Delhi
2) Chopra, P. N. (2016): Macro Economics, Kalyani Publishers, New Delhi
3) Dornbusch, R. and F. Stanley (1997): Macro Economics, McGraw Hill, New York.
4) Shapiro, Edward (1996): Macro Economic Analysis, Galgotia Publications, New Delhi.
5) Gupta, R. D. (1983): Keynesian Economics an Introduction, Second Revised Edition, Kalyan Publishers, New Delhi.
6) Jhingan, M. L. (2017): Macro Economic Theory, Vrinda Publications (P) Ltd. Delhi.
7) Rana, K. C. and K. N. Verma (2014): Macro Economic Analysis, 10th Reprint, Vishal Publishing Co., Daryaganj, Delhi.
8) Seth, M. L. (2006): Macro Economics, Laxmi Narain Agarwal, Educational Publishers, Agra.

THIRD SEMESTER

Paper No. 3 (DSC 3) : Public Economics

Objectives: The objectives of this paper are to acquaint the students with the concepts of public economics, basis for public expenditure, public revenue, canons of taxation and theories of public expenditure, and also to familiarise the students with different concept of budgetary deficits, budget and fiscal policy.

Unit- I: Introduction to Public Economics

Nature, Scope and Importance of Public Finance; Public and Private Finance- Similarities and Dissimilarities; Concept of Public and Private Goods; Principle of Maximum Social Advantage.

Unit-II: Public Revenue

Meaning, Significance and Sources of Public Revenues; Canons of Taxation; Merits and Demerits of Direct and Indirect Taxes; Concept of Progressive, Regressive, Proportional and Digressive Taxes; Shifting and Incidence of Taxes; Goods and Service Tax (GST)- Meaning, Objectives, Slabs of GST, Structure (SGST, CGST and IGST), GST Council and Impact of GST.

Unit- III: Public Expenditure

Meaning and Types of Public Expenditure; Cause for Growing Public Expenditure and its Effects; Role of Public Expenditure in Economic Development; Wagner's views on Public Expenditure.

Unit- IV: Public Debt and Deficit Financing

Meaning, Objectives, Types and Burden of Public Debt; Causes for Growth of Public Debt and Methods of Redemption of Debt; Meaning, Objectives and Effects of Deficit Financing.

Unit- V: Budget and Fiscal Policy

Meaning, Types and Importance of Budget; Budget Preparation and Process; Budgetary Deficits- Fiscal Deficits – Primary Deficit, Revenue Deficits; Zero- Based Budgeting; Fiscal Policy- Meaning, Objectives and Tools, Federal Finance.

References:

1) Agarwal, R. C. (2016): Public Finance Theory and Practice, Lakshmi Narain Agarwal, Agra
2) Bhatia, H L (2018): Public Finance, S. Chand and Co., New Delhi.
3) Dalton, Hugh (1997): Principles of Public Finance, Allied Publishers Pvt. Ltd. New Delhi.
4) Hinderick, John and Myles Gareth (2016): Intermediate Public Economics, PHI, New Delhi.
5) Hyman, David N (2013): Public Finance- A Contemporary Application of Theory to Policy, Thomson South Western Ohio, USA.
6) Lekhi, R.K (2015): Public Finance, Kalyani Publishers, New Delhi.
7) Musgrave, R.A and Musgrave P.A (2017): Public Finance in Theory and Practice, Mcgraw-Hill Kogakkusha, Tokyo.
8) Om Prakash (2016): Public Economics: Theory and Practice, Vishal Publishing Co. Ludhiana.
9) Singh, S.K. (2016): Public Economics: Theory and Practice S. Chand and Co., New Delhi.
10) Tyagi, B. P (2016): Public Finance, Jai Prakash Nath and Company, Meerut, India.

Paper No. 4 (SEC 1) : Statistics for Economics

Objective : The objectives of this paper are to acquaint the students of economics with basic methods of data analysis in Economics using statistical tools/models. The paper aids the students of economics in understanding the importance of decision in determining the choice.

Unit-I: Introduction to Statistics

Statistics- Meaning, Scope, Importance and Limitations; Sources of Data-Primary and Secondary; Types of Data-Qualitative and Quantitative; Classification of Data- Nominal, Ordinal, Interval and Ratio; Frequency and Tabulation of Data.

Unit-II: Measures of Central Tendency and Dispersion

Measures of Central Tendency: Mean-Arithmetic, Harmonic and Geometric, Median and Mode; Measures of Dispersion: Range, Inter-quartile Range, Mean Deviation, Standard Deviation and Co-efficient of Variation.

Unit-III: Correlation and Regression

Correlation- Meaning and Types-Simple, Partial and Multiple Correlation; Measures of Correlation-Karl Pearson and Spearman's Rank Correlation; Regression- Meaning and Types
- Simple Regression and Multiple Regression Analysis and its Applications.

References:

1) Gupta, S. P. (2012): Statistical Methods, S. Chand and Sons, Educational Publishers, New Delhi.
2) Gupta, S.C. and Kapoor, V. K. (2016): Fundamentals of Applied Statistics, 3rd Edition, Sultan Chand & Sons, New Delhi.
3) Monga, G. S. (2015): Mathematics and Statistics for Economics, Second Revised Edition, Vikas Publishing House, Pvt. Ltd. New Delhi.
4) Salvatore, D. (2015): Mathematics and Statistics, Schaum's Series, Tata McGraw Hill.

FOURTH SEMESTER

Paper No. 5 (DSC 4) : International Economics

Objectives: This paper aims to understand the theories of international trade, role of WTO in foreign trade, balance of payment and determination of foreign exchange rate, foreign investment, Make in India v/s Made in India and institutions promoting international trade and investment.

Unit-I: Introduction

International Trade – Meaning and Importance, Distinction between Internal and International Trade; Theories of Absolute Cost Advantage and Comparative Cost Advantage; Heckscher-Ohlin Theory.

Unit-II : Balance of Trade and Balance of Payments

Causes for Disequilibrium in Balance of Payments, Methods of Correcting Disequilibrium; Terms of Trade – Factors affecting Terms of Trade.

Unit-III : Exchange Control

Meaning, Methods of Exchange Control; Appreciation and Depreciation of Rupee – Meaning and effects; Dumping and Anti-Dumping – Meaning – Objectives – Effects

Unit IV : Foreign Exchange

Meaning – Equilibrium Rate of Exchange, Fixed and Flexible Exchange Rates; Purchasing Power Parity Theory; Foreign Exchange Market – Structure, Functions and Methods of Payments, Spot and Forward Rate of Exchange, Hedging, Speculation and Arbitrage.

Unit V : International Economic Organizations

WTO - Structure, Objectives and Functions; Foreign Capital - Sources - Foreign Direct, Investment (FDI) and Foreign Institutional Investments (FIIs) in India; Make in India; SAARC, BRICS- Objectives and Functions.

References :

1) M.L.Seth : "International Economics- Laksmi Narayan Educational Publications", Agra.
2) M.L.Jingan : "International Economics" – Vrinda Publications, New Delhi.
3) A.B.N.Kulkarni and A.B.Kalkundrikar : "International Economics", R.Chand& Co.
4) K.P.M.Sundaram : "Money Banking and International Trade" – S.Chand& Co New Delhi.
5) B.O. Soderston : "International Economics".
6) C.P. Kindelberger : "International Economics"
7) P.A. Samuelson and Nordous : "Economics"

Paper No. 6 (SEC 2) : Human Resource Management

Objectives: The aim of this course is to enable the students to understand thoroughly the concepts of Human Resource Management and to familiarize the students about the vital aspects of Human Resource Management and Human Resource Development.

Unit – I : Introduction

HRM- Meaning, Objectives, Scope and Its Importance; Functions of HRM; Planning, Recruitment and Selection, Training and Development,

Unit - II : Human Resource Planning and Appraisal

Human Resource Planning (HRP): Meaning, Need and Process of HRP, Responsibility for HRP, Performance Appraisal: Need and Significance- Setting Employees Performance, Objectives and Goals; Creating Organizational Conditions for Improving Employee Performance.

Unit – III : Human Resource Development

Concept and Evolution; Relationship between Human Resource Manegement and Human Resource Development; HRD Mechanisms, Processes and Outcomes; HRD Matrix; Roles and Competencies of HRD Professionals.

References:

1) Aswathappa, K. (2000): Human Resource and Personal Management, Tata Mc Graw Hill, New Delhi.
2) Daniel Goleman (2004): Emotional Intelligence, Bloomsbury Publishing India Private Limited, New Delhi.
3) Jim Mathewinan (2000): Human Resource Planning, Jaico Publish House, Bangalore.
4) Mamoria, C. B. and S. V. Gankar (2008): A Textbook of Human Resource Management, Himalaya Publishing House, Mumbai.
5) Wayne, F. Cascio (2000): Management Human Resources, McGraw Hill Higher Education, New York
6) Mankin, D., Human Resource Development, Oxford University Press India.
7) Haldar, U. K., Human Resource Development, Oxford University Press India.

FIFTH SEMESTER

Paper No. 7 (DSE 1/1) : Indian Economy

Objectives: The objectives of this course are to analyze the structure and condition of Indian Industries, to examine the development various problems of agricultural sector, to know about the performance of Indian banking sector, to understand the structure of India's foreign trade, to examine the trends and patterns of public expenditure and revenue of Central Government.

Unit-I: Industrial Development

Importance and Classification of Industries; Major Industries- Iron and Steel Industries, Cotton Textile Industries and their Progress and Problems; Micro, Small, Medium Enterprises (MSMEs)- Concept, Classification, Importance, Problems and Measures; Multinational Companies in India - Meaning, Importance and Defects, New Industrial Policy of India.

Unit-II: Agricultural Development

Indian Agriculture - Importance and Problems; Causes of Low Agriculture Productivity and Measures to Increase Agriculture Productivity; Minimum Support Price Policy; Sources of Agriculture Finance; Agriculture Marketing - Defects and Its Measures; Crop Insurance Policy; New Agriculture Policy of India

Unit-III: Banking Sector

Reserve Bank of India – Functions and its Monetary Policy, Commercial Banks- Meaning, Importance and Growth of Commercial Banks; Regional Rural Banks-Objectives, Progress, Problems and Remedial Measures; Banking Sector Reforms in India; Demonetisation- Meaning and Its Impacts on Indian Economy;

Unit-IV: Indian Public Finance

Sources of Public Revenue-Tax and Non-tax Revenue; Public Expenditure-Development and Non-development; Revenue and Capital Expenditure; Causes for Growing Public Expenditure; Public Debt- Meaning, Importance, Sources, Budget –Meaning and Types; Fiscal Policy- Meaning, Objectives and Tools.

Unit-V: Foreign Trade of India

Features, Volume, Composition and Direction of India's Foreign Trade; Recent Position of India's Balance of Payment; New Foreign Trade Policy of India - India and World Trade Organization (WTO)

References:

1) Agarwal, A. N. and Agarwal M. K. (2016): Indian Economy: Problems of Development and Planning, New Age International (P) Limited Publishers, New Delhi.
2) Agarwal, H. S. (2011): Indian Economy, Lakshmi Narain Agarwal, Agra.
3) Agarwal, R. C. (2015): Economics of Development and Planning (2014-15), Lakshmi Narain Agarwal, Agra.
4) Dhingra, I. C. (2018): Indian Economy, S. Chand and Company Limited, Ram Nagar, New Delhi.
5) Government of India (2017): Economic Survey of India (Annual), Ministry of Finance, Government of India, New Delhi.
6) Lekhi, R.K. and Joginder Singh (2014): The Economics of Development and Planning, Kalyani Publishers New Delhi.
7) Misra, S. K. and V. K. Puri (2018): Indian Economy, Himalaya Publishing House, Mumbai.
8) Ruddar Dutt and K.P.M. Sundharam (2002): Indian Economy, S. Chand and Company Limited, New Delhi.
9) Sundaram, K.P.M. (2004): An Introduction to Indian Economy, S. Chand and Company Limited, Ram Nagar, New Delhi.

Paper No. 7.1 (DSE 1/2) : Monetary Economics

Objectives: The objectives of this paper are to understand the working of monetary system, understanding the value of money in modern economic context and to study the recent development in banking and market and capital market sectors.

Unit- I: Nature and Functions of Money

Money- Meaning, Evolution and functions, and Components of money- M_1, M_2, M_3 and M_4. Creation of Money; Money multiplier, money market equilibrium, Digital money – meaning and its instruments.

Unit- II: Demand for Money

Demand for Money- Classical Approach-Quantity Theory of Money- Fisher's Equation and Cambridge Equation; Keynesian Liquidity Preference Approach.

Unit-III: Money Market and Capital Market

Money Market-Meaning, Features and Instruments and India's Money Market; Capital Market-Meaning, Features, Types of Market- Primary and Secondary Markets; Indian Capital Markets and Its Instruments; SEBI- Working of SEBI-Sensex and Nifty.

Unit-IV: Central Banking

Central Banking-Meaning, Functions, Methods of Credit Control- Quantitative and Qualitative Credit Control Methods; Monetary Policy- Meaning, Objectives and Instruments.

Unit-V: Commercial Banking

Commercial Banking: Meaning, Functions, Credit Creation and Balance Sheet of Commercial Banks, Performance and problems; Private Banking, Recent Banking Sector Reform.

References:

1) Gupta, Suraj B. (2010): Monetary Economics: Institutions, Theory and Policy, S. Chand & Company, New Delhi.
2) Jhingan, M. L. (2012): Monetary Economics, Vrinda Publications (P) Ltd. Delhi
3) Kulkarni, A.B.N. and B. K. Kalkundrikar and A.H. Shaikh (2012): Monetary Economics, R. Chand & Co. New Delhi.
4) Pathak, B.V. (2011): The Indian Financial System: Market, Institution and Services, 3rd Edition, Pearson Education.
5) Paul, R .R. (2005): Monetary Economics, Kalyani Publishers, New Delhi.
6) Seth, M. L. (2010): Monetary Economics, Lakshmi Narain Agarwal Educational Publisher Agra.
7) Sundaram, K.P. M. (2010): Money, Banking and International Trade, Sultan Chand and Sons, New Delhi.

Paper No. 7.1 (DSE 1/2) : RURAL DEVELOPMENT

Objectives : The objective of this paper is to understand the basics of rural development, including characteristics, problems and programmes of rural development in India. It also attempts to study the trends and patterns of economic diversification and governance in rural areas and the role of infrastructures and governance in rural development

Unit – I : Nature and Scope of Rural Development

Need for Rural Development; Concept, Objectives and Indicators of Rural Development; Characteristics of Rural Economy; and Rural-Urban Linkage.

Unit – II: Poverty and Unemployment in Rural India

Rural Poverty-Concept, Poverty Line, Measurement, Poverty Trends, Poverty and Causes of Poverty; Unemployment- Concept, Measurement, Trends, Regional Pattern and Causes of Unemployment; Review of Current Poverty Alleviation and Employment Generation Programmes in India.

Unit – III : Transferring Rural Economy

Importance of Agriculture and Allied Activities in Rural Development; Rural Non-Agricultural Employment in India- Importance, Growth, Regional Pattern and Determinants; Progress and Problems of Small-Scale Industries (SSI/ MSME's) and Remedial Measures.

Unit – IV: Infrastructures for Rural Development

Rural Infrastructures- Meaning, Classification, Importance, Problems; Educational and Health infrastructure; Housing and Sanitation; Drinking Water Supply; Rural Energy; Rural Transport and Communication; Rural Electrification.

Unit – V : Rural Governance

Panchayat Raj Institutions Legislations powers, Functions and sources of revenue- Role of N.G.Os in rural development.

References :

1) Chambers, R. (1983): Rural Development: Putting the Last First, Longman, Harlow.
2) Desai, Vasant (2015): Rural Development, Himalaya Publication, Mumbai.
3) Gupta. K .R. (Ed) (2003): Rural Development in India, Atlantic Publishers and Distributors, New Delhi.
4) Jain, Gopal Lal (1997): Rural Development, Mangal Deep Publications, Jaipur,.
5) Maheshwari, S. R. (1985): Rural Development in India, Sage Publications, New Delhi.
6) Satya Sundaram, I. (2015): Rural Development, Himalaya Publishing House, Delhi.
7) Singh, Katar (1986): Rural Development: Principles, Polices and Management, Sage Publications, New Delhi, (Second Edition).
8) Mondal, Sagar and G. L. Ray (2011): Rural Development, Kalyani Publishers, New Delhi.

Paper No. 8 (SEC 3) : Financial Institutions and Markets

Objectives: The objectives of this paper are to understand the financial systems, operation objectives and functions of primary and secondary markets.

Unit-I: Financial Institutions

Meaning, Structure, Objectives; Structure and Features of Indian Financial System; Role of Financial Institutions in Economic Development of with special reference to India

Unit-II: Primary Markets

Meaning, Objectives and Features; Instruments of Primary Markets-Debt, Equity Shares, and Preference Shares, Advantages and Disadvantages of Primary Market; Role of Primary Markets in Economic Development with special reference to India.

Unit-III: Secondary Markets

Meaning, Objectives, Features and Instruments; Role of Secondary Markets in Economic Development; Advantages and Disadvantages of Secondary Market; Distinction between Primary and Secondary Market; Stock Exchange – Meaning and Growth of Stock Exchange.

References:

1) Bhole, L. M. and J. Mahukud (2011): *Financial Institutions and Markets*, 5th Edition Tata McGraw-Hill, New Delhi.
2) Bhole L.M (2000) : 'Indian Financial System', Chugh Publications, Allahabad.
3) Edminster R. O (1986) : 'Financial Institutions: Markets and Development', Yale, London.
4) Johnson J. J (1993) : Financial Institutions and Markets, MaGrow Hill, New York
5) Varshney, P. N. and D. K. Mittal (2004): *Indian Financial System*, S. Chand and Sons.

SIXTH SEMESTER

Paper – 9 (DSE 2/1) : Development Economics

Objectives: The objectives of this paper are to provide the students with the essential tools and concepts of development economics, general theories of economic growth and development, problems of economic development and to prepare them to understand what helps development to succeed.

Unit-I: Concepts of Development

Economic development – Meaning and Definitions – Distinction between Economic Growth and Development - Indicators of Development: Gross National Product (GNP), Net National Product (NNP), Per Capita Income, Human Development Index (HDI), Human Poverty Index (HPI), Gender Related Development Index, Inclusive Development, MDGs, Poverty and inequality.

Unit-II: Theories of Economic Growth and Development

Adam Smith's Theory, Ricardo's, Karl Marx's Theory - Schumpeter's Theory and Rostow's Growth Theories, Lewis Labour Surplus Model – Rodan's Big Push Theory – Balanced and Unbalanced Growth.

Unit-III: Factors in the Development Process

Capital Accumulation-Determinants of Capital Accumulation, Importance of Capital Formation, Sources of Capital Formation; Capital - Output Ratio; Technology and Economic Development - Institutional Factors; Natural Resources and their Importance-Man Power planning, Human Resources and development.

Unit-IV : Sectoral view of Development

Role of agriculture in economic development; Modernization and agricultural development; Efficiency and Role of industrial growth in economic development; the choice of technique, appropriate technology and employment.

Unit-V : Environment and Sustainable Development

Definition, Importance and role of environment in sustainable development; environment – economy linkage; environmental externalities and state regulation of the environment, economic activity and climate change.

References:

1) Gerald M. Meier and James E. Rauch (2005): Leading Issues in Economic Development, 8 th Edition, Oxford University Press, USA.
2) Higgins, Benjamin (1968): Economic Development, W.W. Norton & Company.
3) Jhingan, M.L. (2012): Economic Development and Planning, 40th Revised Edition, Vrinda Publications, Delhi.
4) Kindleberger , Charles P. (1958):.Economic Development, 8 th Edition, McGraw-Hill Book Company, Inc., New York.
5) Misra, S. K. and V. K. Puri (2010): Economic Development and Policy in India, Himalaya Publishing House, Pvt. Ltd., Mumbai.
6) Naqvi, Syed NawabHaider (2002). Development Economics – Nature and Significance, Sage, New Delhi.
7) Ray, D., (1998). Development Economics, Princeton University Press.

Paper No. 9.1 (DSE 2/2) : Environment Economics

Objectives: The objectives of this paper are to enable the students to understand the importance of environment and resource conservation, to identify the causes of various types of pollutions and reflect upon what needs to be done to promote sustainable development.

Unit- I: Environment and Ecology

Meaning and Elements of Ecology, Environment and Economic Linkages; Entropy Laws, Population Environment Linkage; Concept and Indicators of Sustainable Development.

Unit- II: Natural Resources and Conservation

Meaning; Natural Resource and Economic Development; Renewable and Non-Renewable Resources; Reasons for Scarcity of Natural Resources; Conservation and Recycling Measures; Energy Resources –Energy and Economic Development; Alternative Energy Sources.

Unit- III: Environmental Pollution (With reference to India)

Meaning, Types of Pollution - Air, Water and Noise Pollution; Land Degradation and Deforestation, Loss of Biodiversity and Climate Change – Causes and Consequences

Unit-IV: Environment Valuation

Values of Environment and Ecosystem, Importance of valuation, Total Economic Valuation, Methods of valuation; Contingent valuation method, Travel cost method.

Unit-V: Environmental Policy and Citizen Enforcement

Environmental Management System and Regulatory in India – Role of Pollution Control Boards and their Functions; Provisions of the Environmental Protection Act, 1986; Environmental Movements in India (Chipko);, Swachh Bharat Abhiyan; Afforestation Programmes

References:

1) Bhattacharya, R.N. (Ed.) (2001): Environmental Economics: An Indian Perspective, Oxford University Press, New Delhi.
2) Karpagam, M. (1991): Environmental Economics: A Text Book, Sterling Publishers, New Delhi.
3) Kumar, N. (2017): Environmental Economics, Lakshmi Narain Agarwal, Agra
4) Nick Hanley, Jason F., Shogren and Ben White (1997): Environmental Economics in Theory and Practice, Macmillan India Ltd. London.
5) Rajalakshmi, N. and Dhulasi Birundha (1994): Environomics, Economic Analysis of Environment, Allied Publishers, Ahmedabad.
6) Sankaran, S. (1994): Environmental Economics, Margham, Madras,Chennai.
7) Sengupta, R. P. (Ed.) (2001): Ecology and Economics: An Approach to Sustainable Development, Oxford University Press, New Delhi.
8) Shankar, U. (2001): Environmental Economics, Oxford University Press, New Delhi.
9) Singh, G.N (Ed.) (1991): Environmental Economics, Mittal Publications, New Delhi.

Paper No. 9.1 (DSE 2/2) : Industrial Economics

Objectives: The objectives of this paper are to understand the various problems confronting the entrepreneurs in the process of industrialization, to study the significance of industrialization in the dynamic competitive economic systems; and to examine the of development and expansion of major and small-scale industries.

Unit-I: Introduction to Industrial Economics

Meaning and Definition of Industrial Economics-Need for Industrialisation -Factors affecting Industrialisation Industrial Location-Meaning. Location Theories-Weber and Sergeant Florence-Factors affecting Location. Split in Location.

Unit-II: Productivity and Efficiency

Industrial Productivity and Efficiency-Meaning and Measurement of Productivity, Scope and Significance of Productivity, Factors influencing Productivity, National Productivity Council.

Unit-III: **Industrial Growth and Pattern**

Classification of Industries; Role of Public and Private Sector;; Multinational Corporations and Transfer of Technology. Liberalisation and Privatization, Issues in Industrial Pollution and Environmental Preservation, Pollution Control Policies.

Unit-IV: Industrial Finance

Role, Nature, Value and Types of Institutional Finance; IDBI, IFCI, ICICI, SFCs, SIDBI, and Commercial Banks, EXIM BANK and MUDRA.

Unit-IV: Current Problems of Selected Industries

Iron and Steel, Cotton Textiles, Jute Textiles, Sugar, Coal, Cement and Engineering Goods Industries; Development of Small Scale and Cottage Industries in India ; (MSME's), make in India Need for Skill Development.

References:

1) Ahluwalia, I. J. (1985): Industrial Growth in India, Stagnation in the Mid Sixties, Oxford University Press, New Delhi.
2) Barthwal, R. R. (1985): Industrial Economics, Wiley Eastern Ltd., New Delhi.
3) Cherunilam, F. (1994): Industrial Economics: Indian Perspective (3rd Edition), Himalaya Publishing House, Mumbai.
4) Dasai, B. (1999): Industrial Economy in India, (3rd Edition), Himalaya Publishing House, Mumbai.
5) Divine, P.J. and R. M. Jones et.al. (1976): An Introduction to Industrial Economics, George Allen and Unwin Ltd., London.
6) Hay, D. and D. J. Morris (1979): Industrial Economics: Theory and Evidence, Oxford University Press, New Delhi.
7) Kuchhal, S.C. (1980): Industrial Economy of India, (5th Edition), Chaitanya Publishing House, Allahabad.
8) Singh, A. and A.N. Sadhu (1988): Industrial Economics, Himalaya Publishing House, Bombay.

Paper No. 10 (SEC 4) : Economics of Tourism

Objectives: The objectives of the paper are to examine the importance of tourism in national economy, concepts of tourism, economic impact of tourists, tourism planning and policy for sustainable tourism development.

Unit-I: Introduction to Economics of Tourism
Tourism: Definition- Meaning- Nature and Scope of Tourism, Tourism Development and National Economy: Contribution to GDP-Importance of Tourism Industry in India and Karnataka, Factors Influencing Growth and Development of International and National Tourism.

Unit-II: Economic Impact of Tourist
Employment and Income Creation; Special Characteristics of Employment and Income Generated by Tourism; Secondary Employment and Income, Tourism Multiplier- Limitations of Tourism Multiplier.

Unit-III: Tourism Planning and Policy
Tourism Policy of the Government and Planning; Changing Dimensions of Tourism Planning; Environmental Impact Analysis, Sustainable Tourism Development- Approaches to Tourism Planning.

References:

1) Bhatia, A. K. (2012): Tourism Development: Principles and Practice, (Paperback), Sterling Publishers Pvt. Ltd., New Delhi.
2) Heinemann (2014): The Economics of Tourism Destination, Elsevier Butterworth, Oxford.
3) Jenkins, Carson L. and Leonard J. Lickorish (1997): An Introduction to Tourism, Butterworth-Heinemann, Oxford.
4) Kotler, Philip T., John T. Bowen, James Makens and Seyhmus Baloglu (2016): Marketing for Management & Hospitality and Tourism Marketing, Pearson.
6) Patel, S.G. (2015): Modern Market Research, Himalaya Publishing House, Mumbai.
7) Seth, P. N. (2006): Successful Tourism Management: Fundamentals of Tourism, Sterling Publishing House, New Delhi.
8) Swain, Sampad Kumar and Jitendra Mohan Mishra (2011):Tourism: Principles and Practices,(Paperback), Oxford University Press.
9) Vanhove, N. (2005): The Economics of Tourism Destinations: Theory , Elsevier Butter worth, Oxford.

MODEL QUESTION PAPER

..... Semester B.A. Degree Examination 2020

Time 3 Hours Max Marks: 80

Instruction to candidates:

1. Answer all the three sections
2. Draw the diagrams wherever necessary
3. Section D is Compulsory

SECTION-A

1. Answer any Five of the following Questions in one or two sentences 5X2=10

(a)
(b)
(c)
(d)
(e)
(f)
(g)

SECTION-B

Answer any Five of the following Questions 5X5= 25

2.
3.
4.
5.
6.
7.
8.

SECTION-C

Answer any Two of the following Questions 2X15=30

9.
10.
11.
12.

SECTION-D

13. **Caselet** 15 Marks

RANI CHANNAMMA UNIVERSITY
BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

EDUCATION

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

Rani Channamma University Belagavi, School Of Education
CBCS Based Syllabus Course in Education (Optional)
(W.e.f Academic Year 2020-201 Onwards)

Semester	Code/ Course	Paper No	Title Of the Paper	Teaching Hours / Week		Marks			Duration
				Hours	Credits	IA	Sem End Exam	Total	
I	DSC I	1	Principles of Education	5	3	20	80	100	3
II	DSC 2	2	Sociological Foundations of Education	5	3	20	80	100	3
III	DSC 3	3	Psychological Foundations of Education	5	3	20	80	100	3
	SEC 1	4	Personality Development & Life Skills	2	2	10	40	50	2
IV	DSC 4	5	Advanced Educational Psychology	5	3	20	80	100	3
	SEC 2	6	Educational Guidance & Counseling	2	2	10	40	50	2
V	DSC 1	7	Educational Thoughts of Great Indian Thinkers	5	4	20	80	100	3
	DSE 1	7.1	Development Of Education System in India	5	4	20	80	100	3
	OR								
	DSE 1	7.1	Educational Commission in Free India						
	SEC 3	8	Teaching Skills and Strategies	2	2	10	40	50	2
VI	DSC 1	9	Educational Thoughts of Great Western Thinkers	5	4	20	80	100	3
	DSE 1	9.1	Current Affairs in Indian Education	5	4	20	80	100	3
	OR								
	DSE 1	9.1	Educational Research & Statistics						
	SEC 4	10	Educational Technology & Communication skills	2	2	10	40	50	2
			Total	**48**	**36**	**200**	**800**	**1000**	

CBCS SYLLABUS FOR BA (UG) EDUCATION (OPTIONAL) (2020-21 onwards)

BA I SEMESTER	–	PRINCIPLES OF EDUCATION
DSC- Discipline Specific Course	-	

BA II SEMESTER	–	SOCIOLOGICAL FOUNDATIONS OF EDUCATION
(DSC- Discipline Specific Course)	-	

BA III SEMESTER	–	PSYCHOLOGICAL FOUNDATIONS OF EDUCATION
(DSC- Discipline Specific Course)		
SEC Skill Enhancement Course (SEC)	-	PERSONALITY DEVELOPMENT & LIFE SKILLS

BA IV SEMESTER	–	ADVANCED EDUCATIONAL PSYCHOLOGY
(DSC- Discipline Specific Course)		
SEC Skill Enhancement Course (SEC)	-	EDUCATIONAL GUIDANCE AND COUNSELLING

BA V SEMESTER	–	EDUCATIONAL THOUGHTS OF GREAT INDIAN THINKERS
(DSC- Discipline Specific Course)		
DSE- Discipline Specific Elective	-	DEVELOPMENT OF EDUCATION SYSTEM IN INDIA OR EDUCATIONAL COMMISSIONS IN FREE INDIA
SEC Skill Enhancement Course (SEC)		TEACHING SKILLS & STRATEGIES

BA VI SEMESTER	–	EDUCATIONAL THOUGHTS OF WESTERN THINKERS
(DSC- Discipline Specific Course)		
DSE- Discipline Specific Elective	-	CURRENT AFFAIRS IN INDIAN EDUCATION OR EDUCATIONAL RESEARCH & STATISTICS
SEC Skill Enhancement Course (SEC)		EDUCATIONAL TECHNOLOGY & COMMUNICATION SKILLS

RANI CHANNAMMA UNIVERSITY, BELAGAVI

B.A. First Semester EDUCATION (Optional)

PRINCIPLES OF EDUCATION (DSC)

Teaching 05 hours per week **Total 75 hours**

OBJECTIVES:-

On Completion of the course, the students will be able to:-

1. Understand the basic concept of Education and its significance
2. Interpret the relation between Education and other sciences
3. Understand the different aims of Education
4. Describe the components and principle of curriculum
5. Develop the awareness of eternal human values

Unit I- Meaning, Importance and Scope of Education.

1.1 Meaning of Education - Broader and Narrow meaning of education, Indian and Western concept of Education
1.2 Scope and Importance of education
1.3 Education as a process and product
1.4 Education as a science or an art
1.5 Education for life skills

15 hrs

Unit II– Aims and functions of Education

2.1 Meaning and Need for Aims of Education
2.2 Individual Aims of Education - Education for Knowledge, Education for character, Education for culture, Education for health, Education for vocation
2.3 Social Aims of Education -- Education for Social efficiency, Education For Democracy and Citizenship, Education for National Integration, Education for International Understanding.
2.4 Functions of Education
2.5 Preservation and transmission of cultural Heritage **15hrs**

Unit III- Relation Between Education And Other Sciences

3.1 Philosophy and Education
3.2 Psychology and Education
3.3 Sociology and Education
3.4 Economics and Education
3.5 Technology and Education

15 hrs

Unit IV – Curriculum (Functions and Design)

2.1 Curriculum- meaning and definitions of Curriculum
2.2 Components of Curriculum
2.3 Distinction between Curriculum and Syllabus
2.4 Principles of curriculum construction
2.5 Curriculum Design: Subject centered, Learners centered, Activity Centered

15 hrs

Unit V- Education and Values

5.1 Values – Meaning and definitions
5.2 Importance of values
5.3 Classification: Physical, emotional, mental, social, moral and spiritual values and their examples
5.4 Religions as sources of eternal human values: Righteousness, Non violence, universal love or humanism, truthfulness and peace
5.5 Approaches to inculcation of Value Education: Direct, Indirect, Incidental and integrated methods

15 hrs

ASSESSMENT

Internal	Internal Marks	External Marks
Test	**10 Marks**	**Theory Examination**
Assignment	**10 Marks**	
Total	**20 Marks**	**80 Marks**

Assignments: (Any one)

1. A critical appraisal of relationship between education and other disciplines
2. Preparing a comparative chart of Individual and social aims of Education
3. Analyze the importance of value education in present context
4. Collect, compare and interpret different definitions on education from Indian and Western philosophers
5. Any other assignment suggested by the teacher relevant to the units

References:

- Aggarwal, J.C. (1996) Theory and Principles of Education: Philosophical and Sociological Bases of Education. Vikas Publishers, New Delhi.
- Broudy, S.H. (1962) Building a Philosophy of Education. NewYork: Prentice Hall.
- Brubacher, J.S. (1995) The Challenge to Philosophic about Education: Modern Philosophic and Education. Chicago: University of Chicago Press.
- Brubacher, John, S. (1947) History of the problems of Education. NewYork: McGraw –Hill.
- Chaube, S.P. (1998) Philosophical and Sociological Foundations of Akilesh Chaube Education. Vinod Pustak mandir, Agra.
- Christopher, (1969) What is Philosophy of Education. London: Collier McMillan Ltd.
- Curtis, S.J.(1996) An Introduction to Philosophy of Education. London: Turoria Press.
- Dewey,J. (1916) Democracy and Education. New York: McMillan.
- J.C.Walia (2001) Principles and Methods of Education. Paul Pub, Jalandhar.
- Jantli R.T. (1992) Shikshana Tatvashastra Hagu Samajashastra, Bharath book Depot, Dharwad.

- Karajagi B.D. (1994) Shikshanada Tatvagalu Mattu Shaikshanika Samajashastra. Sri Prakashana Dharwad.
- Kongawad, N.B. (1993) Bharatadalli Shikshana Hagu Prachalita Samasyegalu, Vidyanidhi Prakashana, Gadag.
- Mathur S.S. (1966) A Sociological Approach to Indian Education. Vinod Pustak Maldig.
- Obalesha Ghatti, (1994) Udayonmukha Bharatadalli Shikshana, Toranghatta.
- Sharma G.R. (1987) Trends in Contemporary Indian Philosophy of Education – A Critical Evaluation, New Delhi: Nirmal Publishers.
- Shivashankar H.V. (1982) Bharatadalli Shikshana, Hanji Prakashana Davanagere.

- ದಳವಾಯಿ ಎಸ್.ಬಿ (೨೦೧೦), ಶೈಕ್ಷಣಿಕ ತತ್ವಶಾಸ್ತ್ರ–ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ, ಗದಗ
- ದೇವೇಗೌಡ ಎ.ಸಿ ಮತ್ತು ವೀರಪ್ಪ ಎನ್.ಎಸ್ ಶಿಕ್ಷಣದ ತತ್ವದೃಷ್ಟಿ ಮತ್ತು ಮನೋವಿಜ್ಞಾನ
- ಕರಜಗಿ ಬಿ.ಡಿ, ಶೈಕ್ಷತಣಿಕ ತತ್ವಗಳು ಮತ್ತು ಶೈಕ್ಷಣಿಕ ಸಮಾಜಶಾಸ್ತ್ರ
- ಹೆಗ್ಗನದೊಡ್ಡಿ ಎ.ಆರ್–೦೫) (೨೦೦೪ಶಿಕ್ಷಣ ಶಾಸ್ತ್ರದ ಆಧಾರಗಳು,ವಿವೇಕ ಪ್ರಕಾಶನ, ಸಿಂದಗಿ
- ಗುಡ್ಡಳ್ಳಿ ಎನ್.ಎಸ್ (೨೦೦೪) ಶಿಕ್ಷಣದ ಆಧಾರಗಳು, ಭಾರತ ಪ್ರಕಾಶನ, ಧಾರವಾಡ

QUESTION PAPER PATTERN: **Total 80 Marks**

Q.I. Answer any 10 out of 12 questions in two to three sentences each

(10x2=20 marks)

Q.II. Answer any 5 out of 7 questions in about one page each

(5x5=25 marks)

Q.III. Answer any 2 out of 3 questions in about two pages each

(2x10=20marks)

Q.IV. Answer any 1 out of 2 questions in about three pages

(1x15=15 marks)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

B.A. Second Semester EDUCATION (Optional)

SOCIOLOGICAL FOUNDATIONS OF EDUCATION (DSC)

Teaching 05 hours per week **Total 75 hours**

OBJECTIVES:-

On Completion of the course, the students will be able to:-

1. Trace the role of Education in Socialization process and favorable conditions for effective socialization
2. Describe the structure and functions of various agencies of education
3. Know the Importance of Social change and role of Education in Social change
4. Understand the deferent Social Issues and Strategies to resolve social issues
5. Understand the Concept of Traditionalism and Modernization

Unit I- Meaning, Concept and Scope of Sociological Foundations of Education

1.1 Meaning, nature and scope of Educational Sociology
1.2 Socialization- meaning, concept and scope
1.3 Education as a Socializing factor, conditions for effective socialization
1.4 Meaning and concept- Culture, cultural change and cultural lag
1.5 Education for transmission and refinement of culture

15 hrs

Unit II - Agencies of Education

2.1 Agencies of Education- meaning, definitions
2.2 Active (Direct) and Passive (Indirect) Agencies of Education
2.3 Formal, informal and non formal agencies of Education
2.4 Role of Family, School, Religious institutions, Play groups in Education
2.5 Mass media in Education - Radio, Television, ICT, Press and Cinema

15 hrs

Unit III- Education and Social Change

3.1 Social change: meaning and significance
3.2 Factors influencing social change
3.3 Resistance for social change
3.4 Education as an instrument of social change
3.5 Education and Economic Development: their inter-relationship, Education as an aspect of Human Resource Development

15 hrs

Unit IV – Social Issues and Education

4.1 Social issues- Meaning and nature
4.2 Different social issues in the present educational context-unemployment, poverty, education of socially and economically backward classes
4.3 Causes for social issues
4.4 Strategies to resolve social issues- Initiatives by government and other agencies (NGO's and Charitable trusts)
4.5 Role of education in redressing social issues

15 hrs

Unit V – Traditionalism and Modernization

5.1 Concept of traditionalism
5.2 Social and cultural traditions
5.3 Modernization – meaning and features
5.4 Attributes of modernization
5.5 Traditions in the present Indian society

15 hrs

ASSESSMENT

Internal	Internal Marks	External Marks
Test	**10 Marks**	**Theory Examination**
Assignment/Tutorial	**10 Marks**	
Total	**20 Marks**	**80 Marks**

Assignments (Any one)

1. Analyze the importance of education as an instrument of social change
2. Analyze the importance of Traditions in the present Indian Society
3. Study about strategies to resolve Social Issues.
4. Education as Socializing factor, conditions for effective socialization
5. Any other assignment suggested by the teacher relevant to the topics

References:

6. Brown.F.1. - (1947) Educational sociology: New Delhi: Prentice Hall
7. Bhushan.V.S- (1982) Introduction to sociology, Allahabad: Kitab Mahal
8. Mathur.S.S. - (1966) A Sociological approach to Indian Education, Vinod Pustak Maldig
9. Agarwal J C - Theory and Principles of Education Vikas Publishing House Pvt. Ltd. Delhi
10. Chaube S P - Foundations of Education Vikas Publishing House Pvt. Ltd. Delhi
11. Dr.Sharma - Philosophical and sociological Foundations of Education.
12. Laxmi Narian Agarwal Education Publishers, Anupam Plaza Agra.

- Saiyibuduim - Education culture and social order
- Moris Ginsburg -Sociology of Education
- Lokman Ali – Teacher Education
- S.K.Murthy - Philosophical and Sociological foundations of Education
- R.S.Pandey - Principles of Education
- Ottaway - Introduction to the sociology of Education
- ಬಿ.ಡಿ. ಕರಜಗಿ– ಶೈಕ್ಷಣಿಕ ಉತ್ತಮ್ಮಗಳು ಶೈಕ್ಷಣಿಕ ಸಮಾಜಶಾಸ್ತ್ರ

- ಪ್ರೊ.ದಳವಾಯಿ ಎಸ್.ಬಿ(೨೦೧೧) ಸಮಾಜಶಾಸ್ತ್ರದ ದೃಷ್ಟಿಯಲ್ಲಿ ಶಿಕ್ಷಣ ,ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ

ಪ್ರೊ. ಕೆ.ಜಿ. ಕುಲಕರ್ಣಿ ಶಿಕ್ಷಣದ ತಾತ್ವಿಕ ಹಾಗೂ ಸಾಮಾಜಿಕ ಬುನಾದಿಗಳು

- ಪ್ರೊ.ದಳವಾಯಿ ಎಸ್.ಬಿ(೨೦೧೩–೧೪) ಪ್ರಗತಿಶೀಲ ಭಾರತದಲ್ಲಿ,ವಿದ್ಯಾನಿಶಿಕ್ಷ್ಣ ಪ್ರಕಾಶನ,ಗದಗ

- ರುದ್ರೇಶ ಬಿ ಎಸ್ (೨೦೦೭)–ಭಾರತೀಯ ಸಮಾಜದಲ್ಲಿ ಶಿಕ್ಷಕ ಹಾಗೂ ಶಿಕ್ಷಣ, ವಿದ್ಯಾ ಪ್ರಕಾಶನ,ಗದಗ

QUESTION PAPER PATTERN: **Total 80 Marks**

Q.I. Answer any ten out of twelve questions in two to three sentences each
(10x2=20 marks)

Q.II. Answer any five out of seven questions in about one page each
(5x5=25 marks)

Q.III. Answer any two out of three questions in about two pages each
(2x10=20 marks)

Q.IV. Answer any one out of two questions in about three pages

(1x15=15 marks)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

B.A. Third Semester EDUCATION (Optional)

PSYCHOLOGICAL FOUNDATIONS OF EDUCATION (DSC)

Teaching 05 hours per week **Total 75 hours**

OBJECTIVES: -

On Completion of the course, the students will be able to:-

1. Acquire an understanding of meaning and importance of psychology and Educational Psychology.
2. Gain the knowledge of different stages of human development and understand the characteristics of various stages of development.
3. Acquaint with the role of heredity and environment, and understands the needs and problems of adolescents.
4. Understand the behavior of individual in a group.
5. Understand the memory and forgetting processes.

Unit 1: Psychology and Education

1.1 Psychology – meaning and definitions and nature
1.2 Psychology as a science
1.3 Branches of Psychology - Developmental psychology, Differential psychology and Abnormal psychology
1.4 Educational Psychology - meaning, scope and importance.
1.5 Psychological Methods: Introspection method, Observation method, Case-study, Experimental method - meaning, steps, merits, demerits and educational implications

15 Hrs

Unit II: Stages of Growth and Development

2.1 Growth and Development – Meaning and Principles
2.2 Differences between growth and development
2.3 Stages of development- infancy and childhood
Stages of development- Infancy and childhood
2.4 Adolescent Psychology- Meaning, Importance, Problems of adolescents (Emotional, Social, Moral)
2.5 Role of education in solving problems of adolescents

15 Hrs

Unit III- Heredity and Environment

3.1 Heredity - Meaning, concept and nature
3.2 Mechanism of heredity
3.3 Laws of heredity
3.4 Environment – Meaning and types of environment
3.5 Role of heredity and environment in human development

15 Hrs

Unit IV- Group Dynamics

4.1 Group Dynamics - Meaning, characteristics and Importance
4.2 Types of group - Primary, Secondary and out group
4.3 Behavior of individual in a group
4.4 Role of Sympathy, Suggestion and Imitation in a Group
4.5 Group Morale and Leadership - meaning of group morale and leadership, characteristics of leadership, types of leadership – Democratic and Autocratic.

15 Hrs

Unit V: Memory and Forgetting

5.1 Memory – Meaning, definitions and stages of memory
5.2 Types of memory
5.3 Measures to improve Memory
5.4 Forgetting - Meaning, types and Causes
5.5 Information process – Meaning and Importance

15Hrs

ASSESSMENT

Internal	Internal Marks	External Marks
Test	**10 Marks**	**Theory Examination**
Assignment	**10 Marks**	
Total	**20M Arks**	**80 Marks**

Assignments: (Any one)

1. Preparing a comparative chart of different psychological methods

2. Preparing comparative charts of different stages of development with reference to physical, mental, emotional and social characteristics
3. Conduct a brief survey on role of sympathy suggestion and imitation in a group
4. Study about the importance of Heredity and Environment on human Development
5. Any other assignment suggested by the teacher relevant to the topic

References:

- Ausubel, D.P. (1968) Educational Psychology; A cognitive View, New York: Holt, Rineart and Winston, Inc.
- Biehler, R.F. and Snowman, Jack (1993) Psychology Applied to Teaching (Seventh Edition), New Jersey: Houghton Miffliion Co.
- Bigge, M.L. and Hunt, M.P. (1980) Psychological Foundations of Education: An Introduction to Human Motivation, Development and Learning, (3rd Ed), New York: Harpan and Row Publishers.
- Bigger, J.J. (1983) Human Development, New York: Macmillan Publishing Co.Inc.
- Blair. G.H., Jones, R.S. and Simpson, R.H. (1975) Educational Psychology, (4th Ed), New York: Macmillan Publishing Co.Inc.
- Bhargava, Mahesh (1994) Introduction to Exceptional Children, New Delhi: Sterling Publishers.
- Chaube S.P. (1997) Educational Psychology, Agra: Laxmi Narain Agarwal.

- Bhatia,K.K. Educational Psychology and techniques of Teaching, Kalyani Publishers, Ludhiana 1944
- Bhargava, Mahesh, (1994) Introduction to Exceptional Children, Sterling Pulishers, New Delhi.
- Chauhan, S.S. (1996) Advanced Educational Psychology, Vikas Publishing House, New Delhi.
- Dandapani, S. (2000) Advanced Educational Psychology, Anmol Publications Pvt. Ltd.

- DeCecco, John,P. (1987) Psychology of Learning and Instruction, Prentice Hall, New Delhi.
- Educational Psychology – B.Kuppaswamy
- Educational Psychology – C.E.Skinner
- Advanced Educational Psychology – Dr.H.M.Kashinath
- Adolescent Development – E.B.Harlock
- Gifted children in the classroom – Torrance
- ಪ್ರೊ.ಎಸ್.ಬಿ.ದಳವಾಯಿ(೨೦೧೨) ಶಿಕ್ಷಣದ ಮನೋವೈಜ್ಞಾನಿಕ ಆಧಾರಗಳು, ವಿದ್ಯಾ ಪ್ರಕಾಶನ,ಗದಗ

- ಡಾ॥ ಕಾಶೀನಾಥ, ಡಾ॥ ತಳವಾರ, ಡಾ॥ ಅಜಾತಸ್ವಾಮಿ, ಡಾ॥ ಕೈಲಾಸಲಿಂಗಂ(೧೯೮೯) ಬೋಧನೆ, ಕಲಿಕೆಪ್ರಕ್ರಿಯೆಯಮ್ಲಿನೋವಿಜ್ಞಾನ, ಯುವಜನ ಸಾಹಿತ್ಯ ಅಧ್ಯಯನ ವೇದಿಕೆ,ಇಳಕಲ್.
- ಡಾ॥ ಕೊಂಗವಾಡ ಎನ್.ಬಿ(೨೦೦೯) ಶೈಕ್ಷಣಿಕ ಮನೋವಿಜ್ಞಾನ, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,

- ಡಾ॥ ಎಚ್.ಪ್ಹಿ.ವಾಮದೇವಪ್ಪ(೨೦೦೯) ಶೈಕ್ಷಣಿಕ ಮನೋವಿಜ್ಞಾನಬ್ಲೀ,ಶ್ರೇಕುಶಾಸ್ನ್ನ, ಪ ದಾವಣಗೆರೆ
- ಪ್ರೊ.ದಳವಾಯಿ ಎಸ್.ಬಿ(೨೦೧೧) ಮಾನವ ವಿಕಾಸದ ವಿಅರಿಡಾವ್ಯಾನಿಧಿ, ಪ್ರಕಾಶನ,ಗದಗ
- ಜಿ. ರಾಜು (೨೦೦೯) ಶೈಕ್ಷಣಿಕ ಮನೋವಿಜ್ಞಾನ, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ
- ಹನುಮಂತರೆಡ್ಡಿ ಜಿ.(೨೦೦೬) ಮನೋವೈಜ್ಞಾನಿಕ ದೃಷ್ಟಿಯಲ್ಲಿ'ಬ್ಲೀಶಿಕ್ಷಕೇಶಣ.ಲಸ್ಕೆ್ಷ್ಟ್ರೀ, ಪ ಮೈಸೂರು
- ಎಚ್.ಎಂ.ಚಂದ್ರಾಚಾರ(೨೦೧೪) ಸಮಗ್ರ ಶೈಕ್ಷಣಿಕ ಮನೋವಿಜ್ಞಾನ,ಅಶ್ವಿನಿ ಪ್ರಕಾಶನ,ರಾಣೆಬೆನ್ನೂರ

QUESTION PAPER PATTERN: **Total 80 Marks**

Q.I. Answer any 10 out of 12 questions in two to three sentences each

(10x2=20 marks)

Q.II. Answer any 5 out of 7 questions in about one page each

(5x5=25 marks)

Q.III. Answer any 2 out of 3 questions in about two pages each (2x10=20 marks)

Q.IV. Answer any 1 out of 2 questions in about three pages (1x15=15 marks

RANI CHANNAMMA UNIVERSITY, BELAGAVI.

B.A. Third Semester EDUCATION (Optional)

(Skill Enhancement Course)

Personality Development and Life Skills

Teaching 02 hours per week

Total Hrs: 30

OBJECTIVES:-

After completion of the course students will be able to :

1.Understand the meaning and concept of Education and personality.

2. Understand the agencies of personality development and dimensions/Determinants of personality

3.Understand the self concept, perception and cognition

4. Understand the Meaning and concept of Leadership

5. . Understand the aware of the need and importance of life skills Education,

6. Understand and to use various strategies and gain mastery over each of the core life skills.

UNIT I- Meaning and definition of Education and Personality

1.1 Education: Meaning and definition of Education, analysis of the concept of Education, Process and Product, Aims of Education.

1.2 Personality: Meaning and definition of personality,

1.3 Personality development as a process and Importance of Personality development.

1.4 Role of different agencies in personality Development: Home, School, Society and Media

1.5 Personality: Concept and Nature . Dimensions of Personality – Physical, Intellectual, Emotional, Social, moral and spiritual.

UNIT:2 –Self- Concept ,Perception ,Cognition and Leadership

2.1 Meaning and components of Self concept. Individual as a Self Sculptor

2.2 Perception-Meaning, process development and impact of Perception.

2.3 Cognition – Meaning , Stages of Cognitive intellectual Development Growth and its Impact.

2.4 Leadership as process- Meaning, Qualities of Leadership, working as Team and Management of Conflicts.

UNIT – 3- Life Skills Education

3.1 Meaning and concept of Life Skills.

3.2 Need for the development of skills.

3.3 Importance of Life Skills.

3.4 Core Life Skills for the promotion of the health and well-being of children and adolescents.(as laid down WHO)

(a) Decision making (b) Problem solving (c) Creative thinking (d) Critical thinking
(e) Effective communication (f) Interpersonal relationship skills (g) Self-awareness.
(h) Empathy (i) Coping with emotions. (j) Coping with stress.

3.5 Development of the learners through Life Skills Education.

ASSESSMENT

Internal	Internal Marks	External Marks
Test	**5 Marks**	**Theory Examination**
Assignment	**5 Marks**	
Total	**10M Arks**	**40 Marks**

Assignments:(Any one)

1. Preparing a brief write on different agencies of personality
2. Prepare a write on dimensions of personality
3. Preparing a brief write on concept of self concept, perception and cognition
4. Preparing a brief write on concept of leadership and interpersonal skills
5. Study about the importance of study skills and life skills
6. Any other assignment suggested by the teacher relevant to the topic

REFERENCE

- 1. Asch.M. (2003), Creativity and Personality, Published by IVY Publishing House, Co.Ltd.
- 2.Bharathi.T. Hariprasad.M. and Prakasam (2011), Personality Development and Communicative English.Neelkamal Publications Pvt.Ltd, Educational Publishers, New Delhi.
- 3. Hema Venkatesh Handral (2013), Personality Development, Vijay Vahini, Shivamoga, Karnataka.
- 4. Yandamoori Veerendranath (2010), A student book on Personality Development and Communication Skills, Sahitya Prakashana, Hubli, Karnataka
- 5. World Health Organization (1997), Life Skills Education for Children and Adolescents in Schools. Geneva.
- 6. A Guide for Family Health and Life Skills Education for teachers and students. N.C.E.R.T. 200.
- 7. NIMHANS, life Skill Education Manual.
- 8.Charrigon (2007), The ABC's OF Teaching Life-Skills , Infinity Publisher, London.
- 9.WHO (2001), parents in life skills education, Conclusions from a United Nations inter agency meeting. Geneva World Health Organization.
- 10. Arul Joseph Raj, Ganesan, Kirthi Munjal, Jasim Ahmad, Rachna Rathore , EDU TRACKS, November 2013, Vol.13.No.3 and August 2011, Vol.10.12.
- 11. www.studyskill.com
- 12.. Lakshmi and Rupa, (2014), Global Perspectives of Education, Lambert Academic Publishing. Germany.
- 13.. Gumasthe Deshpande, (2006) Personality Development and Communication Skills, Jayalakshmi Prakashana, Bagalakot, Karnataka. (kannada version).
- 14.. Yandamoori Veerendranatha,(2012), Personality Development and Communication Skills, Sahithya prakashana, Hubballi, Karnataka. (kannada version).
- 15.. Balavantha.M.Police patil (2014), Personality Development and Communication Skills, Sri Siddalingeshwara Book depo, Gulbarga, Karnataka. (kannada version).

Question Paper Pattern: **Total 40 Marks**

Q.I. Answer any 5 out of 7 questions in two to three sentences each

(5x2=10 marks)

Q.II. Answer any 4 out of 6 questions in about one page each

(4x5=20 marks)

Q.III. Answer any 1 out of 2 questions in about two pages

(1x10=10 marks)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

B.A. Fourth Semester EDUCATION (Optional)

ADVANCED EDUCATIONAL PSYCHOLOGY (DSC)

Teaching 05 hours per week **Total 75 hours**

OBJECTIVES: -

On Completion of the course, the students will be able to:-

1. Recognize the significance of the learning and factors affecting learning in shaping individuals personality
2. understand the meaning and developmental factors affecting personality
3. Identify individual differences among human beings.
4. understand the mental health and hygiene
5. develop the ability to compare different types of intelligent tests

Unit I- Learning

1.1 Learning - Meaning, Definitions and Process
1.2 Types of Learning
1.3 Theories of Learning - Trial and Error Learning (Thorndike), Conditioned learning (Pavlov and Skinner), Insight learning (Kohler)
1.4 Factors influencing learning – Motivation, Attention, Interest, Fatigue
1.5 Transfer of learning - Meaning, Types and Methods to increase transfer of learning

15 Hrs

Unit II- Personality

2.1 Personality – Meaning and definitions
2.2 Factors influencing on personality development
2.3 Theories of Personality - Body type theories (Kreishmer, Sheldon), Psycho-analytic theories (Freud, Jung)
2.4 Personality adjustment – Meaning and characteristics
2.5 The role of home, School and teachers in the personality adjustment

15Hrs

Unit III: Mental Health and Hygiene

3.1 Mental Health – Meaning and Importance

3.2 Mental hygiene – Meaning, concept and characteristics of a mentally healthy person
3.3 Maladjustment – Meaning and causes, resistance for adjustment- tension, frustration and conflicts
3.4 Defense mechanisms
3.5 Role of Education in maintaining mental health of children.

15 Hrs

Unit IV- Intelligence and Creativity

4.1 Intelligence - Meaning, definitions, growth, distribution, concept of IQ
4.2 Theories of intelligence – Spearman's Two Factor Theory and Guilford's Structure of Intelligence
4.3 Intelligence Tests - Uses, types (Individual and group)
4.4 Creativity - Meaning, Characteristics measures to enhance creativity
4.5 Emotional Intelligence - Meaning, components

15 Hrs

Unit V: Human Abilities

5.1 Human Abilities - Cognitive, Affective and Psycho-motor, Measures to enhance human abilities
5.2 Individual differences – meaning and characteristics
5.3 Areas and causes of individual differences
5.4 Exceptions in Human Abilities – Gifted and Slow learners
5.5 The role of education in overcoming the Juvenile delinquency

15 Hrs

ASSESSMENT

Internal	Internal Marks	External Marks
Test	**10 Marks**	**Theory Examination**
Assignment	**10 Marks**	
Total	**20M Arks**	**80 Marks**

Assignments: (any one)

1. Preparing a comparative chart of different types of learning
2. Role of home and school in maintaining mental health of children
3. Conduct a brief survey on role of sympathy suggestion and imitation in a group
4. Case study of some selected individuals with special human abilities
5. Any other assignment suggested by the teacher relevant to the topic

References:

- Ausubel, D.P. (1968) Educational Psychology; A cognitive View, New York: Holt, Rineart and Winston, Inc.
- Bigge, M.L. and Hunt, M.P. (1980) Psychological Foundations of Education: An Introduction to Human Motivation, Development and Learning, (3rd Ed), New York: Harpan and Row Publishers.
- Blair. G.H., Jones, R.S. and Simpson, R.H. (1975) Educational Psychology, (4th Ed), New York: Macmillan Publishing Co.Inc.
- Chaube S.P. (1997) Educational Psychology, Agra: Laxmi Narain Agarwal.

Educational Psychology – B.Kuppaswamy

Educational Psychology – C.E.Skinner

Advanced Educational psychology S.S Chavan

Advanced Educational psychology – Dr.H.M.Kashinath

- Perspectives of Educational Psychology – Dr.V.A.Benakanal

- ಪ್ರೊ.ಎಸ್.ಬಿ.ದಳವಾಯಿ(೨೦೧೨) ಶಿಕ್ಷಣದ ಮನೋವೈಜ್ಞಾನಿಕ ಆಧಾರಗಳು, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕ

ಡಾ॥ ಕಾಶೀನಾಥ, ಡಾ॥ ತಳವಾರ, ಡಾ॥ ಅಜಾತಸ್ವಾಮಿ, ಡಾ॥ ಕೈಲಾಸಲಿಂಗಂ(೧೯೮೯) ಬೋಧನೆ, ಪಕ್ರಿಯೆಯಲ್ಲಿ ಮನೋವಿಜ್ಞಾನ, ಯುವಜನ ಸಾಹಿತ್ಯ ಅಧ್ಯಯನ ವೇದಿಕೆ,ಇಳಕಲ್.

- ಡಾ॥ ಕೊಂಗವಾಡ ಎನ್.ಬಿ(೨೦೦೯) ಶೈಕ್ಷಣಿಕ ಮನೋವಿಜ್ಞಾನ, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ

- ಡಾ॥ ಎಚ್.ವ್ಹಿ.ವಾಮದೇವಪ್ಪ(೨೦೦೯) ಶೈಕ್ಷಣಿಕ ಮಯೋವಿಸ್ಜ್ಞಾಬ್ಲೀನ,ಕ್ರೋಶನ್ಸ, ದಾವಣಗೆರೆ

- ಪ್ರೊ.ದಳವಾಯಿ ಎಸ್.ಬಿ(೨೦೧೧)ಮಾನವ ವಿಕಾಸದ ಅರಿವಿಡುವ್ಯಾನಿಧಿ, ಪ್ರಕಾಶನ,ಗದಗ

- ಜಿ. ರಾಜು (೨೦೦೯) ಶೈಕ್ಷಣಿಕ ಮನೋವಿಜ್ಞಾನ, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ

- ಹನುಮಂತರೆಡ್ಡಿ ಜಿ.(೨೦೦೬) ಮನೋವೈಜ್ಞಾನಿಶಿಕ್ಷ್ಪಡಾ೨ಷ್ಟಿ.ಲಯ್ಷ್ಮೀಲ್ಲಿಪಬ್ಲೀಕೇಶನ್ಸ್, ಮೈಸೂರು

- ಎಚ್.ಎಂ.ಚಂದ್ರಾಚಾರ(೨೦೧೪) ಸಮಗ್ರ ಶೈಕ್ಷಣಿಕ ಮನೋವಿಜ್ಞಾನ,ಅಶ್ವಿನಿ ಪ್ರಕಾಶನ,ರಾಣೆ

Question Paper Pattern: **Total 80 Marks**

Q.I. Answer any 10 out of 12 questions in two to three sentences each **(10x2=20 marks)**

Q.II. Answer any 5 out of 7 questions in about one page each **(5x5=25 marks)**

Q.III. Answer any 2 out of 3 questions in about two pages each **(2x10=20 marks)**

Q.IV. Answer any 1 out of 2 questions in about three pages

(1x15=15 marks)

Rani Channamma University, Belagavi
B.A. Fourth Semester, Education (Optional)
(Skill Enhancement Course)

Educational Guidance and Counseling

Teaching 02 hours per week **Total : 30**

OBJECTIVES:-

On Completion of the course, the students will be able to :-

1,Understand the need for guidance and its meaning, nature and scope
2,Understand the between guidance and counseling
3.Understand the Identify the areas of guidance
4. Understand the knowledge the sources of career information
5. understand the different areas of counseling

Unit: 1- Guidance and Education

1.1. Meaning, Definitions and Nature of guidance
1.2. Educational guidance-Nature ,scope and objectives
1.3. Guidance and Education, Basic principles of guidance
1.4. Need for guidance at various levels of education/schooling
1.5. Types of guidance and Group guidance: Educational, Vocational and Personal

Unit:2- Vocational guidance and Understanding Dissemination of Career Information

2.1. Vocational Guidance – Nature, Need, Scope,
2.2. Vocational Information –Nature, sources,Techniques, collection,
2.3. Vocational guidance and career guidance, importance of career information,
2.4.Dissemination of career information –Group techniques, objectives, advantages and limitations.
2.5,Group activities: career talks, career conference/exhibition, displays, field trips, film shows etc.

Unit:3- Understanding Counseling , Counseling skills, Approaches and Techniques

3.1. Meaning and nature of counseling
3.2. Scope of counseling, Relationship between guidance and counseling,
3.3. Different approaches of Counseling-Directive, Non-directive and Eclectic.
3.4 Skills and qualities of an effective counselor
3.5.Counseling techniques: Cognitive, behavioral and systemic

ASSESSMENT

Internal	Internal Marks	External Marks
Test	05 Marks	
Assignment/Sessional work	05 Marks	Theory Examination
Total	10 Marks	40 Marks

Assignments/Sessional work: (Any one)

The students may undertake any one of the following activities:

1. **Prepare a detailed outline of a class talk on 'Need for guidance at various levels of education/in schools.**
2. **Prepare class talk and career talk on assigned topics.**
3. **Prepare a list of resources required for setting up a guidance-oriented curriculum**
4. **Plan career information activities for secondary and higher secondary school stages**
5. **Prepare a plan for peer counseling in the school.**

References:

1.Aggarwal.J.C. (1977), Educational Vocational Guidance and Counselling, Doaba House. New Delhi,

2.Bhattacharya, S. (1963),Guidance in Education, Asia Publications, Bombay.

3.Barki.B.G. and Mukhopadhyay (1986) Guidance and Counselling: A Manual, New Delhi: Sterling Publishers Pvt. Ltd.

4.Chauhan.S.S. (1982) Principles and Techniques of Guidance. American Book Co. New Yark.

5.Crow.L.D. and Crow, Alice (1960) An Introduction to Guidance, New Delhi

6.Rao and Narayana.S.(2000), Counselling and Guidance, New Delhi: Tata McGraw-Hill.

7. N.C.E.R.T. Councelling and Guidance in Secondary Schools,Delhi.

8.Kochhar.S.K. (2008),Educational and Vocational Guidance in Secondary Schools. Sterling publishers private limited. New Delhi.

9.Lokapur I.A. (2005),Educational and Vocational Guidance, Vidya Nidhi Prakashana, Gadaga, Karnataka. (kannada version).

10..Rajashekaraiah, (2004),Vocational Education and Counselling in Education , Chetan Book House, Mysore.Karnataka. (kannada version)

11.Prabhu.R.G. (2005), Vocational Education and Counselling in Education, Vidhyanidhi prakashana, Gadag, Karnataka. (kannada version)

12. Nagappa p shahapur, Dineshchandra and Anilkumar, (2007) Educational Guidance and Counselling, vidyanidhi prakashana, gadaga, Karnataka, (kannada version).
13. Satheesh A. Hiremutt,(2006), Educational and Vocational Guidance, Sri siddlingeshwara prakashana,Gulbarga, Karnataka, (kannada version).

QUESTION PAPER PATTERN: Total 40 Marks

Q.I. Answer any 5 out of 7 questions in two to three sentences each

(5x2=10 marks)

Q.II. Answer any 4 out of 6 questions in about one page each

(4x5=20 marks)

Q.III. Answer any 1 out of 2 questions in about two pages

(1x10=10 marks)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

B.A. Fifth Semester EDUCATION (optional)

COMPULSORY PAPER

EDUCATIONAL THOUGHTS OF GREAT INDIAN THINKERS (DSC)

Teaching 05 hours per week **Total 75 hours**

OBJECTIVES: -

On completion of the course the student will be able to:-

1. explain the educational principles and ideas of Rabindranath Tagore
2. Trace the educational principles and contributions of swami Vivekananda
3. Appreciate the views of Mahatma Gandhi on education
4. Explain the progressive thoughts of sri Basaweswar on kayak superstitions, casteism and women's education
5. Interpret the views of Dr. Radhakrishanan on aims , principles, and womans education

Unit I- Rabindranath Tagore

1.1 Life and works
1.2 Educational principles, Aims of Education
1.3 curriculum, views on teacher and discipline
1.4 methods of teaching, shantiniketan
1.5 Educational contributions.

15 Hrs

Unit II – Swami Vivekananda

2.1 Life and works
2.2 Educational principles and aims of Education
2.3 Qualities of teacher, qualities of pupil, Religious education
2.4 Woman education, Mass education
2.5 Educational contributions

15 Hrs

Unit III- Mahatma Gandhiji

3.1 Life and works
3.2 Educational principles, Aims of Education
3.3, Methods of teaching, curriculum
3.4 Basic education
3.5 Educational contributions

15 Hrs

Unit IV- Sri Basaveswar

4.1 Life and Works
4.2 His progressive thoughts on superstitions, kayaka, castiesm
4.3 womans education and religious education
4.4 educational thoughts and moral education
4.5 Educational contributions

15Hrs

Unit 5: Dr. S. Radhakrishnan

5.1 Life and works
5.2 Educational Principles and Aims of Education
5.3 Views on Teacher and Discipline
5.4 Religious Education and Women's Education
5.5 Educational contributions.

15 Hours

ASSESSMENT

Internal	Internal Marks	External Marks
Test	**10Marks**	**Theory Examination**
Assignment	**10 Marks**	
Total	**20**	**80 Marks**

ASSIGNMENTS: ANY ONE

1. Compare the Educational principles of R Tagore and swami Vivekananda with regard to their relevance to the present society
2. Study the impact of Basaveshwara's progressive thoughts on transmission of the present society (study tour to kudalasangama)

3. Study the Biography of Dr. S. Radhakrishnan. (Photography, Life Sketch, Contributions)

4. Any other assignment suggested by the teacher relevant to the topics

References:

- Mani R S [1964].Educational ideas and ideals of Gandhi and Tagore.
- Swami Prabhunanand [1981] Spiritual Heritage of India. Sri Ramkrishna math, Madras. -600004, India.
- Great Modern Indian Educators –S. P. Choube.
- Doctrines of Great Educators. –R.R.Rusk.
- Outlines of Great Educators –G. B. Mench.
- Recent Educational Philosophers in India-S.P.Choube.
- ಪ್ರೊ.ದಳವಾಯಿ ಎಸ್.ಬಿ(೨೦೦೯) ಭಾರತೀಯ ಚಿಂತಕರ ಶೈಕ್ಷಣಿಕ ಕೊಡುಗೆಗಳ ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ
- ಪ್ರೊ ಆಯ್.ಎಸ್.ಗಿರಡ್ಡಿ (೧೯೮೯) ಶ್ರೇಷ್ಠ ಶಿಕ್ಷಣ ತಜ್ಞರು.ವಿವೇಕ ಪ್ರಕಾಸನ
- ಡಾ.ವಿ.ಕೆ.ಹಂಪಿಹೊಳಿ ಹಾಗೂ ಇತರರು(೧೯೯೩) ಶ್ರೇಷ ಶಿಕ್ಷಣ ತಜ್ಞರು,ವಿಜಯ ಪ್ರಕಾಶನ ಗದಗ

QUESTION PAPER PATTERN: **Total 80 Marks**

Q.I. Answer any 10 out of 12 questions in two to three sentences each (10x2=20 marks)

Q.II. Answer any 5 out of 7 questions in about one page each

(5x5=25 marks)

Q.III. Answer any 2 out of 3 questions in about two pages each

(2x10=20 marks)

Q.IV. Answer any 1 out of 2 questions in about three pages

(1x15=15 marks)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

B.A. Fifth Semester EDUCATION (optional)

OPTIONAL PAPER I

DEVELOPMENT OF EDUCATION SYSTEM IN INDIA (DSE)

Teaching 05 hours per week **Total 75hours**

OBJECTIVES: -

On completion of the course the student will be able to:-

1. Identify concept, ideals and principles of Vedic Education in ancient India and to realize the importance of Gurukula system
2. Explain the Educational principles and rituals of Buddhism and to know the Educational implications of these Doctrines
3. Highlight the structure, organization and practices of Education based on Islamic Education
4. Explain the implications of lord maculae's minute on Indian educational system
5. Explain the merits progress of Education under provincial autonomy

Unit I - Vedic Education

1.1 The concept and ideals (aims) of education
1.2 Principles,, Educational Institutions
1.3 Characteristics, Educational Rituals, Curriculum
1.4 Methods of teaching, discipline and examination
1.5 Gurukula System - Qualities of Pupil, Teacher-Pupil Relationship.

15 Hrs

Unit II-Bhuddhistic Education

2.1 The concept and ideals (aims) of education
2.2 Boudh Sangh Educational rituals, methods of teaching
2.3 Duties of a teacher, Teacher-Pupil relationship
2.4 Curriculum, Methods of Teaching, women's education
2.5 Educational centers and Universities in ancient India, merits and demerits

15 Hrs

Unit III -Islamic Education

3.1 The concept and ideals (aims) of education

3.2 Educational Rituals, Curriculum

3.3 Teacher-Pupil relationship, Discipline, Educational institutions (Maktab and Madarasa)

3.4 Role of a Teacher, Educational centers, Female Education

3.5 Methods of Teaching, Examinations

15 Hrs

Unit IV- Education during 1833-1910

4.1classist And Anglicist Controversies

4.2 Lord Macaulay's Minutes

4.3 Wood's Dispatch of 1854

4.4 Hunter Commission Of 1882

4.5 G.K.Gokhale's efforts for compulsory Primary Education

15 Hrs

Unit V- Education during 1919-1944

5.1 Education Under Diarchy

5.2 Hartog Committee 1929(Wastage And Stagnation)

5.3 Vardha scheme as basic education-1937

5.4 Pregress of Education under Provincial Autonomy

5.5 Sargent report on education-1944.

15 Hrs

ASSESSMENT

Internal	Internal Marks	External Marks
Test	**10 Marks**	**Theory Examination**
Assignment	**10 Marks**	
Total	**20 Arks**	**80 Marks**

Assignments : (Any one)

1. Critically appraise the main characteristics of Vedic, Buddhist and Islamic Education with regard to their merits and limitations
2. Prepare report n Educational institutions which functioning in budhistic period
3. Critically analyze the lard Macaulay minute
4. Prepare a report on major recommendations of Indian Education Commissions
5. Any other assignment suggested by the teacher relevant to the topic

References:

- Chaube, S.P. (1994) History and Problems of Indian Education. 5th Ed., Agra: Vinod Pustak Mandir.
- Conze,E (1969) Buddhism. London: Faber and Fabertime.
- Jantli, R.T. (1994) Shikshana Hagu Prachalita Samasyegalu. Dharwad: Bharat Book Depot.
- Mohanty, J. (1988) Indian Education in the Emerging Society. Bangalore: Sterling Publishers.
- Mukharjee,S.N. (1966) History of Education in India. Baroda: Acharya Book Depot.
- Mukharjee, R.K. (1974) Ancient Indian Education, New Delhi: Motilal Bararjidas.
- Shivashankar H.V. (1982) Bharatadalli Shikshana Davanagere : Hanji Prakashana.
- Swami Prabhunandanand (1981) Spiritual Heritage of India. Shri Ramakrishna Math, Madras.
- Aritts, A.I.S.N.C.(1979)Aims and objectives of Islamic Education.Jeddah Holder and Stoughton.
- ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ
- ಪ್ರೊ.ದಳವಾಯಿ ಎಸ್.ಬಿ(೨೦೧೧) ಭಾರತದಲ್ಲಿ ಶಿಕ್ಷಣ ವಿದ್ಯಾನಿ'ದಿ ಇತಿಹಾಸ ಪ್ರಕಾಶನ, ಗದಗ
- ಪ್ರೊ.ದಳವಾಯಿ ಎಸ್.ಬಿ(೨೦೧೧)ಬ್ರಿಟೀಶಆಳ್ವಿಕೆಯಲ್ಲಿನವದಿ ಶಿಕ್ಷಣ, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ ಡಾ॥ ಎನ್.ಎಸ್.ವೀರಪ್ಪ-ಭಾರತೀಯ ಶಿಕ್ಷಣದ ಇತಿಹಾಸ
- ಪ್ರೊ.ದಳವಾಯಿ ಎಸ್.ಬಿ(೨೦೧೪–೧೫)) ಭಾರತದಲ್ಲಿಶಿಕ್ಷಣೆಣಿಕ ವ್ಯವಸ್ಥೆಯ ವಿಕಾಸ ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ

QUESTION PAPER PATTERN: **Total 80 Marks**

Q.I. Answer any 10 out of 12 questions in two to three sentences each (10x2=20 marks)

Q.II. Answer any 5 out of 7 questions in about one page each (5x5=25 marks)

Q.III. Answer any 2 out of 3 questions in about two pages each (2x10=20 marks)

Q.IV. Answer any 1 out of 2 questions in about three pages (1x15=15 marks)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

B.A. Fifth Semester EDUCATION (Optional)

OPTIONAL PAPER II

EDUCATIONAL COMMISSIONS IN FREE INDIA (DSE)

Teaching 05 hours per week **Total 75 hours**

OBJECTIVES: -

On completion of the course the student will be able to:-k2

1) Analyze the major recommendations of University Education commission (1948) in terms of their implications.
2) Outline the impact of secondary Education (1954) on Indian Secondary Education.
3) Review the various recommendations of Indian Education Commission (1964) and their impact on various stages of Indian Education.
4) Understand aims, curricula, methods of teaching, evaluation procedure as highlighted in the National Policies of Education.
5) Understand the Different Views of National Education Policy of 2019.

UNIT I-UNIVERSITY EDUCATION COMMISSION 1948

(Major recommendations with reference to the following :)

1.1-Aims of Education.

1.2-Pattern of Education.

1.3-Curriculum,Medium of instruction, System of Examination.

1.4-Religious Education, Student welfare and activities, University Grant Commission-establishment and its functions.

1.5-Quality of Education, Female Education.

15 Hrs

UNIT II-SECONDARY EDUCATION COMMISSION1952-54

(Major recommendations with reference to the following:)

2.1-Aims of Education, Pattern of Education.

2.2-Curriculum,Diversified Courses.

2.3-Vocational Guidance and Counseling Bureau.

2.4-, System of Examination, Moral Education.

2.5-Student Welfare programmes.

15 Hrs

UNIT III-INDIAN EDUCATION COMMISSION. 1964-66

(Major recommendations with reference to the following:)

3.1-National Goals of Education.

3.2-Pattern of Education, Medium of Instruction.

3.3-Curriculum, Examination Reform.

3.4 Work Experience and Social Service..

3.5-Moral Education, Vocational Education.

15 Hrs

UNIT IV-NATIONAL POLICIES ON EDUCATION

4.1-National Policy on Education-1968.

4.2- National Policy on Education-1986.

4.3-Programme of Action-1992.

4.4-National Curriculum for Secondary Education-2000.

15 Hrs

Unit V-NATIONAL EDUCATION POLICY (NEP)-2019

5.1-Introduction to NEP-2019

5.2- School Education- New Design (5+3+3+4)

5.3- Curriculum and Pedagogy in Schools

5.4 – Higher Education: Quality Universities and Colleges

15Hours

ASSESSMENT

Internal	Internal Marks	External Marks
Test	10 Marks	Theory Examination 80 Marks
Assignment	10 Marks	
Total	20 Marks	

Assignments: ANY ONE

1) Prepare a proposal of vocationalization of + 2 stage based on the recommendations of Indian Education commission of 1964.
2) Prepare a report on Important recommendations of NEP-2019.
3) Prepare a comprehensive note on National policy of Education-1986.
4) Prepare a report on major recommendations of University Education Commission - 1948.
5) Any other assignment suggested by the teacher relevent to the topics.

Reference Books:

- B.C.Rai(1998)-History of Indian Education and problems-prakashan Kendra Lucknow.
- The report of Indian Education Commission (1964)-Government of India Ministry of Education).
- The report of Secondary Education Commission (1952)-Government of India Ministry of Education
- Government of India MHRD (1986) Revised (1992) National Policy of Education New Delhi.
- Government of India (1992)Report of core group on Value orientation of Education Planning commission.
- P L Rawat- History of Indian Education
- Suresh Bhatnagar-Education Today and Tommorrow.
- Mukherjee S. N.- Education in India Today and Tomorrow.
- J.C.Agarwal- National policy on Education.
- ಡಾ॥ ಎಚ್.ಎಂ.ಕಾಶಿನಾಥ– ರಾಷ್ಟ್ರೀಯ ಶಿಕ್ಷಣ ನೀತಿ ೧೯೮೬ ಪ್ರಗತಿ ಪರಿಶೀಲನೆ
- ಡಾ॥ ಆರ್.ಟಿ.ಜಂತಲಿ– ಭಾರತದಲ್ಲಿ ಶಿಕ್ಷಣ ಹಾಗೂ ಪ್ರಚಲಿತ ಸಮಸ್ಯೆಗಳು
- ಪ್ರೊ॥ ಎಸ್.ಬಿ.ದಳವಾಯಿ– ಭಾರತದಲ್ಲಿ ಶಿಕ್ಷಣದ ಇತಿಹಾಸ

- ಡಾ॥ ಎಸ್.ಬಿ.ಯಾದವಾಡ– ಪ್ರಗತಿಶೀಲ ಭಾರತದಲ್ಲಿ ಶಿಕ್ಷಣ
- ಡಾ॥ ಎನ್.ಎಸ್.ವೀರಪ್ಪ– ಭಾರತೀಯ ಶಿಕ್ಷಣದ ಇತಿಹಾಸ
- ಡಾ॥ ಎನ್.ಬಿ.ಕೊಂಗವಾಡ– ಉದಯೋನ್ಮುಖ ಭಾರತದಲ್ಲಿ ಶಿಕ್ಷಣ
- ಪ್ರೊ॥ ಎಸ್.ಬಿ.ದಳವಾಯಿ– ಸ್ವತಂತ್ರ ಭಾರತದಲ್ಲಿ ಶೈಕ್ಷಣಿಕ ಆಯೋಗಗಳು
- ಆರ್.ಡಿ.ಕರಜಗಿ– ಭಾರತದಲ್ಲಿ ಶಿಕ್ಷಣದ ಚರಿತ್ರೆ

QUESTION PAPER PATTERN: **Total 80 Marks**

Q.I. Answer any ten out of twelve questions in two to three sentences each
(10x2=20 marks)

Q.II. Answer any five out of seven questions in about one page each
(5x5=25 marks)

Q.III. Answer any two out of three questions in about two pages each
(2x10=20 marks)

Q.IV. Answer any one out of two questions in about three pages
(1x15=15 marks)

Rani Channamma University, Belagavi
B.A. Fifth Semester, Education (Skill Enhancement Course)
Teaching Skills and Strategies

Teaching 02 hours per week **Total : 30**

OBJECTIVES:-
On Completion of the course, the students will be able to :-
1,Understand the meaning and definitions of teaching
2,Understand the principles of teaching
3.Understand the meaning and importance of micro teaching
4. Understand the Teacher centred learning method
5. understand the Learner centred learning method

UNIT: 1. TEACHING AND LEARNING PROCESS

1.1 Meaning and Definitions of Teaching
1.2 Nature of Teaching
1.3 Characteristics of Good Teaching
1.4 Principles of Teaching
1.5 Teaching as an Art and Teaching as Science.

UNIT:2- MICRO TEACHING

2.1 Meaning, definitions and importance of Micro-Teaching
2.2 Characteristics of Micro Teaching
2.3 Micro-Teaching cycle
2.4 Elements of Micro-Teaching-Modelling, Setting (simulation/real),feed-back, integration
2.5 Advantages of Micro-Teaching and Limitations of Micro-Teaching

UNIT:3- STRATEGIES OF TEACHING

3.1. Meaning 0f Teaching Strategy
3.2. Teacher centered Method-
a) Exposition Method-(Meaning, context of use, Features of exposition method)
b) Demonstration Method- (Meaning, Planning and Uses)
3.3. Learner Centered Method – a) Discussion Method –(Meaning, Planning, Context, choice of topic issued-based)
b) Types of Small group discussion- Brain storming, Buzz, panel discussion
3.4 Distinguish between teacher centred methods and learner centred methods of teaching
3.5 Project Method – Principles of Project Method, Steps of Project Method, Characteristics of Good Project, Advantages and Limitations of Pfoject Method.

ASSESSMENT

Internal	Internal Marks	External Marks
Test	05 Marks	
Assignment	05 Marks k2	Theory Examination
Total	10 Marks	40 Marks

Assignments: (Any one)

The students may undertake any one of the following activities:

1. **Prepare a report on concept of teaching and characteristics of teaching**
2. **Prepare a write on micro teaching cycle and elements**
3. **Prepare a different methods of teaching**
4. **Prepare activity based project method concern any subject**
5. **Any other assignment suggested by the teacher relevant to the topics**

REFERENCES:

1.Arulsamy S.and Zayapragassarazan(2014) Teaching Skills and Stragegies, Neelkamal Publications Pvt. Ltd,Hyderabad

2. Kochhar, S.K. (2004), Methos and Techniques of Teaching, New Delhi, Sterling Publishers, Private Limited.

3.Nimbalkar, M.C. (2010), Educational Skills and Strategies of Teaching, Neelkamal Publications Pvt, Ltd, Hyderabad.

4. Singh, L.C.and Sharma R.D. 'Micro-Teaching: Theory and Practice, National psychological Corporation, Agra.

5.Pasi,B.K. AND Lalitha, M.S. (1976) Micro-Teaching Approach, Ahmedabad Sahitya, Mudranalaya, Ahmedabad.

6. Shailaja H.M. and Rajeev P. Gundale , (2006), Skills Strategies Teaching, Vidyanidhi Prakashana, Gadag, Karnataka.

7. Pattanashetti.M.M. (2003), Shala Kalegugalalli Parinamakari Bhodanege Anubodhane., U.NEED.Publications, Davanagere, Karnataka (kannada version)

8. Karigannanavar A.G. and Karigannanavar G.Y. Bodhana Koushallyagalu mattu Hunnaragalu, Jnanaganghotri prakashana , Gadaga, Karnataka (Kannada version)

9. Patted.(smt) L.B. (2010), Bodhana Koushallyagalu Paddathigalu, Madarigalu and Karyatrantragalu, Vidhy Nidhi Prakashana, Gadaga, Karnataka.(Kannada version).

10.Obaleshagatti.(1999). Teaching Skill and Strategies, Vidhyanidhi prakashana, Gadag, Karnataka. (kannada version)

QUESTION PAPER PATTERN: **Total 40 Marks**

Q.I. Answer any 5 out of 7 questions in two to three sentences each

(5x2=10 marks)

Q.II. Answer any 4 out of 6 questions in about one page each

(4x5=20 marks)

Q.III. Answer any 1 out of 2 questions in about two pages

(1x10=10 marks)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

B.A. SIXTH SEMESTER EDUCATION (Optional)

COMPULSORY PAPER

EDUCATIONAL THOUGHTS OF GREAT WESTERN THINKERS (DSC)

Teaching 05 hours per week **Total 75 hours**

OBJECTIVES: -

On completion of the course the student will be able to:-

1. explain the educational principles and ideas of Plato
2. Trace the aims of education, women's education and stages of development according to Rousseau
3. Appreciate the views of John Dewey on education
4. Explain the educational thoughts of Froebel
5. Interpret the educational contributions of Montessori

Unit I- Plato

1.1 Life and works
1.2 Educational principles, Aims of Education
1.3 woman's education, courses of study stages of instruction
1.4 Plato's academy, theory of knowledge
1.5 Educational contributions.

15 Hrs

Unit II – Jean Jaques Rousseau

2.1 Life and works
2.2 Educational principles and aims of Education
2.3 stages of growth and development and education
2.4 woman education, negative education
2.5 Educational contributions

15 Hrs

Unit III- Fedrick Froebel

3.1 Life and works
3.2 Educational principles, Aims and functions Education
3.3 Methods of teaching
3.4 Kindergarten
3.5 Educational contributions

15 Hrs

Unit IV- Maria Montessori

4.1 Life and Works
4.2 educational principles,
4.3 Montessori schools, sensory training
4.4 Methods of teaching
4.5 Educational contributions

15 Hrs

Unit V: Johan Dewey

5.1 Life and works
5.2 Educational Principles and Aims of Education
5.3 curriculum, laboratory school
5k.4 methods of teaching
5.5 Educational contributions.

15 Hrs

ASSESSMENT

Internal	Internal Marks	External Marks
Test	**10Marks**	**Theory Examination**
Assignment	**10 Marks**	
Total	**20**	**80 Marks**

Assignments: Any One

1. Compare the Educational principles of Plato and Rousseau with regard to their relevance to the present society
2. Collect the educational contributions of Froebel
3. Prepare the plan of Montessori views on education
4. Study the biography of John Dewey
5. Any other assignment suggested by the teacher relevant to the topics

References:

- Doctrines of Great Educators. –R.R.Rusk.
- Outlines of Great Educators –G. B. Mench.
- Recent Educational Philosophers in India-S.P.Choube.
- Great Modern Indian Educators –S. P. Choube.
- Doctrines of Great Educators. –R.R.Rusk.
- Outlines of Great Educators –G. B. Mench.
- Recent Educational Philosophers in India-S.P.Choube.
- Some great Western Educators- S.P.Choube.
- Some great western Educators.-B. C. Rai.
- Rousseau- A study of his thought Arnold –J.H. Broome.
- ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ
- ಪ್ರೊ.ದಳವಾಯಿ ಎಸ್.ಬಿ(೨೦೧೦) ಪಾಶ್ಚಿಮಾತ್ಯ ಚಿಂತಕರ ಶೈಕ್ಷಣಿಕ ಕೊಡುಗೆಗಳು,
- ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ
- ಪ್ರೊ ಆಯ್.ಎಸ್.ಗಿರಡ್ಡಿ (೧೯೮೯) ಶ್ರೇಷ್ಠ ಶಿಕ್ಷಣ ತಜ್ಞರು.ವಿವೇಕ ಪ್ರಕಾಸನ
- ಡಾ.ವಿ.ಕೆ.ಹಂಪಿಹೊಳಿ ಹಾಗೂ ಇತರರು(೧೯೯೩) ಶ್ರೇಷ ಶಿಕ್ಷಣ ತಜ್ಞರು,ವಿಜಯ ಪ್ರಕಾಶನ ಗದಗ

QUESTION PAPER PATTERN: **Total 80 Marks**

Q.I. Answer any ten out of twelve questions in two to three sentences each
(10x2=20 marks)

Q.II. Answer any five out of seven questions in about one page each
(5x5=25 marks)

Q.III. Answer any two out of three questions in about two pages each
(2x10=20 marks)

Q.IV. Answer any one out of two questions in about three pages
(1x15=15 marks)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

B.A. Sixth Semester EDUCATION (Optional)

OPTIONAL PAPER - I

CURRENT AFFAIRS IN INDIAN EDUCATION (DSE)

Teaching 05 hours per week **Total 75 hours**

OBJECTIVES: -

On completion of the course the student will be able to:-

1. acquire the knowledge of meaning, nature and scope of Inclusive Education
2. understand the Problems of Population explosion
3. understand the measures to improve Women's Education
4. gain the knowledge about importance of Environment Education
5. understand the brief historical background of universilazation of primary education

Unit I – Inclusive Education

1.1 Inclusive Education -Meaning, concept and importance, difference between Traditional and Inclusive education.
1.2 Children with Physically challenged.
1.3 Children with Visually challenged.
1.4 Children with Hearing challenged.
1.5 Children with Mentally challenged.

15 Hrs

Unit II- Population Education

2.1 Population Explosion- Concept, Causes, Problems
2.2 Population Education- Concept, Objectives, Importance
2.3 Role of Teacher In Population Education
2.4 Role of Curriculum And Teaching Methods In Population Education
2.5 Measures To Control Population Explosion

15Hrs

Unit III - Education For Woman Empowerment

3.1 History of Woman's Education
3.2 Importance of Woman's Education
3.3 Hindrances for Woman's Education
3.4 Measures to improve Woman's Education
3.5Woman Empowerment - concept, importance, strategies, the role of Education in Woman Empowerment

15 Hrs

Unit IV – Health Yoga & Physical Education

4.1 Meaning & Objective of Health Education
4.2 Importance & Determinants of Health
4.3 Meaning, Objectives & Scope of physical Education
4.4 Meaning & History of Yoga
4.5 Different Yoga asanas & Importance of Yoga

15Hrs

Unit V - Universalization of Primary Education

5.1 Historical background
5.2 Meaning, objectives and importance
5.3 Measures taken for fulfillment of Universalization of primary Education
5.4 Hindrance in Universalization of primary Education
5.5 Remedies for improvement of Universalization of primary Education

15 Hrs

ASSESSMENT

Internal	Internal Marks	External Marks
Test	**10 Marks**	**Theory Examination**
Assignment	**10 Marks**	
Total	**20 Arks**	**80 Marks**

Assignments: (any one)

1. Measures taken for fulfillment of Universalization of primary education
2. Create the Interest for the Practice of Yogasanas.
3. Collect important dates and events of history of Women's Education in INDIA
4. Writing report regarding educational provisions and remedial measures for Challenged childrens.
5. Any other assignment suggested by the teacher relevant to the topics

References:

- Baggaley J. P.et. all (1975),Aspects of Educational technology-27 , Austrellia: Pitman publishing Pvt Ltd.
- Dass, R.C (1993) , Educational Technology – A basic Text, New Delhi; Streling Publishers.
- Dr J G Roddannavar – Trends in Indian Education.
- Dr S P Choube- History and problems of Indian Education.
- Lokman Ali- Teacher Education.
- ಪ್ರೊ ದಳವಾಯಿ .ಬಿಎ.ಸ್(೨೦೧೦–೧೧)– ಭಾರತೀಯ ಶಿಕ್ಷಣದಲ್ಲಿನ ಹೊಸ ಪರಿಕಲ್ಪನ ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ
- ಡಾ.ಎನ್ ಬಿ. ಕೊಂಗವಾ–ಡಜೈ್ಕ್ಷಣಿಕ ತಂತ್ರಜ್ಞಾನ ,ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ
- ಸಿ. ವಿ. ಮ್ಯಾಗೇರಿ(೨೦೦೯)– ಶೈಕ್ಷಣಿಕ ತಂತ್ರಜ್ಞಾನ, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ
- ಪ್ರೊ ದಳವಾಯಿ ಎಸ್.ಬಿ. (೨೦೧೪)–ಭಾರತೀಯ ಶಿಕ್ಷಣದ ಪ್ರಚಲಿತ ವಿದ್ಯಮಾನಗ ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ,ಗದಗ
- ಡಾ.ನೂರಜಹಾನ್ ಎನ್. ಗನಿಹಾರ ಮತ್ತುಪ್ರೀತಿಡಾ.ಪಿ. ಬಂಡಾಹಕ (೨೦೦೮)– ಪ್ರಾಚೀನ
- ಭಾರತದಲ್ಲಿ ಸ್ತ್ರೀ ಶಿಕ್ಷಣದ ಬೆಳವಣಿಗೆ ಮತ್ತು ವಿಕಾಸ. ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ

QUESTION PAPER PATTERN: **Total 80 Marks**

Q.I. Answer any ten out of twelve questions in two to three sentences each (10x2=20 marks)

Q.II. Answer any five out of seven questions in about one page each (5x5=25 marks)

Q.III. Answer any two out of three questions in about two pages each (2x10=20 marks)

Q.IV. Answer any one out of two questions in about three pages (1x15=15 marks)

RANI CHANNAMMA UNIVERSITY, BELAGAVI

B.A. Sixth Semester EDUCATION (Optional)

OPTIONAL PAPER II

EDUCATIONAL RESERCH AND STATISTICS (DSE)

Teaching 05 hours per week **Total 75 hours**

OBJECTIVES: -

On completion of the course the student will be able to:-

1. Develop The Awareness of Research in Education
2. Comprehend The Meaning, Need And Significance Of Research In Education
3. Know the importance of Measurement and Evaluation in Education
4. Gain the knowledge regarding Action Research
5. Interpret The Global Trends In Education

Unit I- Research in Education

1.1 Research: Meaning and characteristics
1.2 Educational research: Meaning and importance
1.3 Methods of Research- Meaning and Importance
(a)Historical, (b) Descriptive and (c) Experimental
1.4 Types of Research- Action Research, Fundamental Research, Applied Research
1.5 Steps in research.

15 hrs

Unit II – Tools and Techniques in Educational research

2.1 Educational Statistics : Meaning and importance
2.2 Quantification of Data - Classification and Tabulation of Data
2.3 Graphical Representation (Bar/Histogram, Frequency Polygon, Circle Graph)
2.4 Analysis of Data- Measures of Central Tendencies (Mean, Median, Mode)

2.5 Measures of variability (Range, Mead deviation, Standard deviation and Quartile deviation)

Unit III - Measurement and Evaluation in Education

3.1 Measurement and Evaluation – Meaning, Concept and Importance
3.2 Differences between Measurement and Evaluation

3.3 Types of Evaluation: Summative, Formative, Placement and Diagnostic Evaluations
3.4 Achievement Tests: Teacher made tests and Standardized tests
3.5 Types of tests: Oral, Written, Performance, Essay type, Short answer type and Objective type

15hrs

Unit IV – Action Research

4.1 Meaning , Definitions, Scope and Importance of Action Research
4.2 Limitations of Action research
4.3 Action problems in different areas in school examples
4.4 Distinction between Traditional, Educational and Action research
4.5 Steps in Action Research, data analysis and report writing

15hrs

Unit V- Global Trends in Education

5.1 Concept of Liberalization
5.2 Concept of Privatization
5.3 Concept of Globalization
5.4 Global Agencies of Education. (UNESCO and UNICEF)
5.5 Influence of LPG on Education

15 hrs

ASSESSMENT

Internal	Internal Marks	External Marks
Test	**10 Marks**	**Theory Examination**
Assignment	**10Marks**	
Total	**20 Arks**	**80 Marks**

Assignments: (any one)

1. Analyze the importance of Evaluation in education
2. Preparing a comparative chart of different research methods
3. Analyze the importance of Action research
4. Write a report regarding influence of LPG on education .
5. Any other assignment suggested by the teacher relevant to the topics

References:

- Batia. K.K. and C. L. Narang [1990] Theory and Principles of Education. Prakash Brothers. Jalandar.
- Swami Prabhunanand [1981] Spiritual Heritage of India. Sri Ramkrishna math, Madras.600004, India.
- Great Modern Indian Educators –S P choube.
- Doctrines of Great Educators. –R.R.Rusk.
- Recent Educational Philosophers in India-S.P.Choube.
- Some great Western Educators-S.P.Choube.
- Some great western Educators.-B. C. Rai.
- History of Indian Education – S.N.Mukherji
- Research in Education - J.W.Best (1998)
- Action Research - E.T.Stringer(2000)

- Action Research In special education – Susan M. Bruce.
- Business Statistics - Punkaj Mehra
- Business Statistics - Bendre

QUESTION PAPER PATTERN: **Total 80 Marks**

Q.I. Answer any 10 out of 12 questions in two to three sentences each

(10x2=20 marks)

Q.II. Answer any 5 out of 7 questions in about one page each

(5x5=25 marks)

Q.III. Answer any 2 out of 3 questions in about two pages each

(2x10=20 marks)

Q.IV. Answer any 1 out of 2 questions in about three pages

(1x15=15 marks)

Rani Channamma University, Belagavi
B.A. Sixth Semester, Education (Optional)
(Skill Enhancement Course)
Educational Technology and Communication Skills

Teaching 02 hours per week **Total : 30**

OBJECTIVES:-
On Completion of the course, the students will be able to :-
1.Understand the meaning and definitions of Educational Technology
2.Understand the Objectives of Educational Technology
3.Understand the origin, meaning of Programmed instruction.
4. Understand the distinguish between communication and instruction
5. understand the components of communication.

UNIT: 1. EDUCATIONAL TECHNOLOGY
1.1 Meaning ,definitions and concept of Educational Technology.
1.2 Scope of Educational Technology.
1.3 Objectives of Educational Technology.
1.4 Components of Educational Technology- Hardware and Software
1.5 Differences between Educational Technology and Instructional Technology.

UNIT:2- PROGRAMMED INSTRUCTION:
2.1. Origin of Programmed Instruction
2.2. Meaning and Principles of programmed instruction
2.3. Types of Programmed instructions -Linear and Branching
2.4. Advantages and Limitations of Programmed Instructions

UNIT:3- COMMUNICATION SKILLS
3.1. Meaning ,definitions and concept of communication.
3.2. Importance and Process of Communication
3.3. Types of Communication-Verbal and non-verbal.
3.4 Components of Communication ,Barriers of Communication.
3.5 Classroom Communication-Mass media approach- The art of public speaking.

ASSESSMENT

Internal	Internal Marks	External Marks
Test	05 Marks	
Assignment	05 Marks	Theory Examination
Total	10 Marks	40 Marks

Assignments: (Any one)

The students may undertake any one of the following activities:

1. **Prepare and collect the information about Meaning ,concept and scope of Educational Technology.**
2. **Prepare and collect the information about Objectives and Components of Educational Technology**
3. **Prepare and collect the Meaning, Principles and Types of Programmed instructions.**
4. **Preparation of classroom teaching aids/instruments.**
5. **Any other assignment suggested by the teacher relevant to the topic**

REFERENCES:

1.Arulsamy S.and Zayapragassarazan(2014) Teaching Skills and Stragegies, Neelkamal Publications Pvt. Ltd,Hyderabad

2. Kochhar, S.K. (2004), Methos and Techniques of Teaching, New Delhi, Sterling Publishers, Private Limited.

3.Nimbalkar, M.C. (2010), Educational Skills and Strategies of Teaching, Neelkamal Publications Pvt, Ltd, Hyderabad.

4. Singh, L.C.and Sharma R.D. 'Micro-Teaching: Theory and Practice, National psychological Corporation, Agra.

K25.Pasi,B.K. AND Lalitha, M.S. (1976) Micro-Teaching Approach, Ahmedabad Sahitya, Mudranalaya, Ahmedabad.

6. Shailaja H.M. and Rajeev P. Gundale , (2006), Skills Strategies Teaching, k8Vidyanidhi Prakashana, Gadag, Karnataka.

7. Pattanashetti.M.M. (2003), Shala Kalegugalalli Parinamakari Bhodanege Anubodhane., U.NEED.Publications, Davanagere, Karnataka (kannada version)

8. Karigannanavar A.G. and Karigannanavar G.Y. Bodhana Koushallyagalu mattu Hunnaragalu, Jnanaganghotri prakashana , Gadaga, Karnataka (Kannada version)

9. Patted.(smt) L.B. (2010), Bodhana Koushallyagalu Paddathigalu, Madarigalu and Karyatrantragalu, Vidhy Nidhi Prakashana, Gadaga, Karnataka.(Kannada version).

QUESTION PAPER PATTERN: **Total 40 Marks**

Q.I. Answer any 5 out of 7 questions in two to three sentences each

(5x2=10

marks)

Q.II. Answer any 4 out of 6 questions in about one page each

(4x5=20 marks)

Q.III. Answer any 1 out of 2 questions in about two pages

(1x10=10 marks)

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

ENGLISH

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

CHOICE BASED CREDIT SYSTEM
(w.e.f. 2020-21 onwards)

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1. **Board of Studies: English (UG)**
2. **Abbreviation Used**
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4. **Course Outcomes for BA**
5. **Course wise Credit Structure**
6. **Course wise Syllabus and Teaching Hours**

   IA & Theory Assessment Methods

   Question Paper Pattern

1. Board of Studies: English (UG)

01	**Prof. Vijay Nagannawar** Department of Studies in English, Rani Chanamma University, Belagavi.	Chairman
02	**Shri. M. C. Karabari** Department of English, BLDEA's College, Jamkhandi.	Member
03	**Shri. U. S. Aralimatti** Department of English, RPD College, Belagavi.	Member
04	**Shri. S. B. Khot** Department of English, MES College, Mudalagi.	Subject Expert
05	**Dr. M. M. Hurali** Department of English, KLE's B. K. College, Chikodi.	Subject Expert
06	**Dr. S. B. Biradar** Department of English, SVM College, Ilkal.	Subject Expert

2. Abbreviation Used

Part 1: DSC - Discipline Specific Course (Optional English)

Part 2: DSE - Discipline Specific Elective (Optional English)

Part 3: AECC -Ability Enhancement Compulsory Course (Basic English)

Part 3: SEC - Skill Enhancement Course (Communicative English)

3. Course Objectives for BA/BSC/BCOM/BBA/BCA/BSW

1) To acquaint the students with communication skills
2) To inculcate life skills and human values
3) To improve the language competency
4) To enhance listening and speaking skills
5) To improve reading and writing skills
6) To encourage to think creatively and critically
7) To expand emotional intelligence
8) To develop gender sensitivity

4. Course Outcomes for BA

On successful completion of CBCS English courses, an undergraduate student will be able to:

1) Read, understand, and interpret a variety of written texts
2) Undertake guided and extended writing using appropriate vocabulary and correct grammar
3) Listen and speak with confidence in both formal and informal contexts with reasonable fluency and acceptable pronunciation
4) Become employable with requisite professional skills, ethics and values

5. Course wise Credit Structure

Choice Based Credit System (CBCS) for **BA Programme**

Part 1: DSC - Discipline Specific Course (Optional English)

Sem	Course Code	Title of the Paper	Teaching Hours/Week	Credits	Marks		Total	Duration of Exam
					Sem End Exam	IA		
I	DSC ENG105	Understanding Literature – I	5	3	80	20	100	3 Hrs
II	DSC ENG106	Understanding Literature – II	5	3	80	20	100	3 Hrs
III	DSC ENG107	Understanding Literature – III	5	3	80	20	100	3 Hrs
IV	DSC ENG108	Understanding Literature – IV	5	3	80	20	100	3 Hrs

Part 2: DSE - Discipline Specific Elective (Optional English)

Sem	Course Code	Title of the Paper	Teaching Hours/Week	Credits	Marks		Total	Duration of Exam
					Sem End Exam	IA		
V	DSE ENG109	Literary Criticism and Theory	4	4	80	20	100	3 Hrs
	DSE ENG110A	Linguistics and ELT	4	4	80	20	100	3 Hrs
	DSE ENG110B	**OR** Media and Communication						
VI	DSE ENG111	The English Language and Phonetics	4	4	80	20	100	3 Hrs
	DSE ENG112A	Indian English Literature	4	4	80	20	100	3 Hrs
	DSE ENG112B	**OR** Translation Studies						

Part 3: SEC - Skill Enhancement Course (Communicative English)

Sem	Course Code	Title of the Paper	Teaching Hours/Week	Credits	Marks		Total	Duration of Exam
					Sem End Exam	IA		
III	SEC ENG113	Soft Skills	2	2	40	10	50	2 Hrs
IV	SEC ENG114	Business Correspondence	2	2	40	10	50	2 Hrs
V	SEC ENG115	Media and Communication	2	2	40	10	50	2 Hrs
VI	SEC ENG116	Media Writing	2	2	40	10	50	2 Hrs

Part 1: DSC – Discipline Specific Course (Optional English)

Semester I: DSCENG105 – Understanding Literature I
(3 Credits; 5 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Introduction: The courses introduce the students who have opted to study English as one of their major subjects a few literary gems from various parts of the globe. The selections are aimed at initiating students for a systematic study of literature. They read the representatives poems of the age alongside the concise meanings of 22 literary terms.

Internal Assessment consists of Tests and Tutorials ensure that the students are learning well and prepare them for Semester end exams. 20 marks of IA in every semester is part of the continuous evaluation process and help students in knowing their texts. The semester end exam for 80 marks tests the student's progress in the semester from multiple perspectives. One-mark, five-mark and ten-mark questions in the examination are designed to evaluate the textual understanding.

Unit I: History of English Literature (2 hrs, 30 Marks)

1) The Renaissance
2) Elizabethan Poetry
3) Elizabethan Drama
4) Metaphysical Poetry
5) Cavalier Poetry
6) Puritan Prose

Unit II: Introduction to Literature (1 hr, 10 Marks)

1) What is Literature?
2) Literature and society
3) Literature and Culture
4) Literature and Science

Unit III: Selected Poems (1 hr, 20 Marks)

1) And Wilt thou Leave me Thus? - Sir Thomas Wyatt
2) One day I wrote her name… - Edmund Spencer
3) To Celia - Ben Jonson
4) Sonnet 130 - William Shakespeare
5) To His Coy Mistress – Andrew Marvel

Unit IV: Literary Forms and Terms (1 hr, 20 Marks)
4.1) Literary Forms: Essay, Novel, Tales, Legends, Sonnet, Lyric, Epic, Comedy, Tragedy, Tragicomedy, and Farce
4.2) Literary Terms: Allegory, Simile, Metaphor, Metonymy, Personification, Pun, Soliloquy, Chorus, Climax and Euphemism

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 Objective questions on Unit I	10x1=10
II.	05 Short answer type questions on Unit IV Literary Terms (4.2)	5x02=10
III.	Essay type question on Unit I (1 out of 2)	1x10=10
IV.	Essay type question on Unit I (1 out of 2)	1x10=10
V.	Essay type question on Unit II (1 out of 2)	1x10=10
VI.	Essay type question on Unit III (1 out of 2)	1x10=10
VII.	Short notes on Unit III (2out of 4)	1x10=10
VIII.	Short notes on Unit IV Literary Forms (4.1)	2x05=10
Total		80

Reference Books

Abrams, M. H. A Glossary of Literary Terms, Thomson Press (India) Ltd, 2019.
Cuddon, J .A. *A Dictionary of Literary Terms.* Viva Books, 1998.
Daiches, David. *A Critical History of English Literature.* Secker & Warburg, 1968.
Gray, Martin. *A Dictionary of Literary Terms.* Pearson, 2008.
Hudson, WH. *An Introduction to the Study of Literature.* Rupa, 2015.
Jespersen, 0 . *Growth and Structure of the English Language.* Blackwell, 1991.
Kreutzer, James. *Elements of Poetry.* Macmillan, 1971.
Lemon, Lee T. *A Glossary for Study of English.* OUP, 1974.
Wood, F. T. *An Outline History of the English Language.* Macmillan, 2000.

Semester II: DSCENG106 – Understanding Literature II
(3 Credits; 5 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit I: History of English Literature 18th century (2 hrs, 30 Marks)
1. Features of Restoration Literature
2. Restoration Poetry
3. Restoration Comedy
4. Neo-classical Poetry
5. Periodical Essay
6. 18th Century Novel
7. Sentimental Comedy

Unit II: *The School for Scandal* – Richard Brinsley Sheridan (2 hrs, 30 Marks)

Unit III: Literary Forms and Terms (1 hr, 20 Marks)
3.1 Literary Forms: Biography, Autobiography, Memoir, Mock Epic, Ode, Novella, Dramatic Monologue, Elegy, Ballad, and Idyll.

3.2 Literary Terms: Hyperbole, Irony, Paradox, Atmosphere, Character, Imagery, Narrative technique, Plot, Setting and Symbolism

Question Paper Pattern

I.	10 Objective questions on Unit I	10x1=10
II.	05 Short answer type questions on Unit III (3.2)	5x02=10
III.	Essay type question on Unit I (1 out of 2)	1x10=10
IV.	Essay type question on Unit I (1out of 2)	1x10=10
V.	Essay type question on Unit II (1 out of 2)	1x10=10
VI.	Essay type question Unit II (1 out of 2)	1x10=10
VII.	Short notes on Unit II (2 out of 4)	2x05=10
VIII.	Short notes on Unit III (3.1) (2 out of 4)	2x05=10
Total		80

Reference Books
1. Andrew Sanders: The Short Oxford History of English Literature
2. Edward Albert: History of English Literature
3. Michael Alexander: A History of English Literature
4. G.M. Trevelyan: English Social History
5. Bibhash Choudhury: English Social and Cultural History

Semester III: DSCENG107 – Understanding Literature III
(3 Credits; 5 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit I: History of English Literature (2 hrs, 30 Marks)
1. Salient Features of Romanticism
2. Romantic Poetry
3. Romantic Prose
4. Features of Victorian Poetry
5. Victorian Poetry
6. Victorian Prose
7. Victorian Novel

Unit II: Poetry (1 hr, 20 Marks)

1) Three Years She Grew - William Wordsworth
2) Ode to a Nightingale - John Keats
3) Skylark - P. B. Shelley
4) Lotus Eaters – Lord Tennyson

Unit III: Essays (2 hrs, 30 Marks)
1) On Reading Old Books - William Hazlitt
2) The Londoner - Charles Lamb
3) Will Wimble - Joseph Addison
4) On Finding Things - E. V. Lucas
5) Man in Black (Meeting with Begger, Soldier and seller) – Oliver Goldsmith

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 Objective questions on Unit I	10x1=10
II.	Essay type question on Unit I (1 out of 2)	1x10=10
III.	Essay type question on Unit I (1out of 2)	1x10=10
IV.	Essay type question on Unit II (1out of 2)	1x10=10
V.	Essay type question Unit III (1out of 2)	1x10=10
VI.	Essay type question on Unit III (1 out of 2)	10x1=10
VII.	Short notes on Unit II (2 out of 4)	2x05=10
VIII.	Short notes on Unit III (2 out of 4)	2x05=10
Total		80

Reference Books
1. Andrew Sanders: The Short Oxford History of English Literature
2. Edward Albert: History of English Literature
3. Michael Alexander: A History of English Literature
4. G.M. Trevelyan: English Social History
5. Bibhash Choudhury: English Social and Cultural History

Semester IV: DSCENG108 – Understanding Literature IV
(3 Credits; 5 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit I: History of English Literature 20th Century (1 hr, 20 Marks)
1. Introduction to 20th Century English Literature
2. 20th Century Drama – Poetic Drama & Irish Literary Movement
3. 20th Century Poetry – Georgian Poetry & War Poetry
4. 20th Century Novel – Stream of Consciousness Novel & Women Novelists

Unit II: Waiting for Godot – Samuel Becket(2 hrs, 30 Marks)

Unit III: Animal Farm – George Orwell (2 hrs, 30 Marks)

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 Objective questions on Unit I		10x1=10
II.	Essay type question on Unit I (1 out of 2)		1x10=10
III.	Essay type question on Unit II (1 out of 2)		1x10=10
IV.	Essay type question on Unit II (1 out of 2)		1x10=10
V.	Short notes on Unit II (2 out of 4)		2x05=10
VI.	Essay type question on Unit III (1out of 2)		1x10=10
VII.	Essay type question on Unit III (1 out of 2)		1x10=10
VIII.	Short notes on Unit III (2 out of 4)	2x05=10	
Total			80

Reference Books
1. Andrew Sanders: The Short Oxford History of English Literature
2. Edward Albert: History of English Literature
3. Michael Alexander: A History of English Literature
4. G.M. Trevelyan: English Social History
5. Bibhash Choudhury: English Social and Cultural History

Semester V: DSEENG109 – Literary Criticism and Theory

(4 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit I (1 hr, 20 Marks)

1. Criticism: Nature, Functions and Types
2. Aristotle and Plato: Mimesis
3. What is Poetry?
4. Longinus: Sublime

Unit II (1 hr, 20 Marks)

1. Classicism, Romanticism and Realism
2. Style
3. Matthew Arnold: Criticism and Creation and Touchstone Method
4. Allen Tate: The New Criticism

Unit III (1 hr, 20 Marks)

1. William Empson's Ambiguity
2. T. S. Eliot: Tradition and Individual Talent
3. Feminism
4. I. A. Richards: Principles of Criticism

Unit IV (1 hr, 20 Marks)

1. Eco criticism
2. Modernism
3. Postmodernism
4. Orientalism

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 Objective type questions based on all Units.	10x1=10
II.	Essay type question Unit I (One out of Two)	1x10=10
III.	Essay type question on Unit II (One out of Two)	1x10=10
IV.	Essay type question on Unit III (One out of Two)	1x10=10
V.	Essay type question on Unit IV (One out of Two)	1x10=10
VI.	Short Notes on all Units (6 out 8)	6x05=30
Total		80

Reference Books

Barry, Peter. Beginning Theory: An Introduction to Literary and Cultural Theory. Manchester and New York: Manchester University Press, 2002.
Bennett, Andrew, and Nicholas Royle. An Introduction to Literature, Criticism and Theory.
Biradar S. B. Literary Criticism and Theory. Scholar Space Pub, 2018
Harlow: Pearson Education Limited. 2009.
Culler, Jonathan. Literary Theory: A Very Short Introduction. Oxford: OUP, 2011.
Eagleton, Terry. Literary Theory: An Introduction. Oxford: Blackwell, 2008.
Preminger, Alex, Leon Golden et al, eds. Classical Literary Criticism: Translations and Interpretations. New York: Frederick Ungar Publishing, 1974.
Rylance, Rick. Debating Texts: A Reader in Twentieth-Century Literary Theory and Method. Milton Keynes: Open University Press, 1987.
Waugh, Patricia. Literary Theory and Criticism: An Oxford Guide. Oxford: OUP, 2006

Semester V: DSEENG110A – Linguistics and ELT
(4 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit I: (1 hr, 20 Marks)
i) Definition and Nature of Linguistics
ii) Branches of Linguistics
iii) Properties of Human Language
iv) Approaches to the Study of Linguistics: Synchronic- Diachronic, Langue and Parole, Competence and Performance

Unit II: (1 hr, 20 Marks)
i) Sentence and its kinds
ii) Sentences Processes (Patterns)
iii) The Structure of Noun Phrase, Verb Phrase, Adjective Phrase, Adverb Phrase and Prepositional Phrase in English
iv) Clauses, Subordination and coordination,

Unit III (1 hr, 20 Marks)
i) What is ELT?
ii) Importance of ELT
iii) Knowing the Learner
iv) LSRW

Unit IV (1 hr, 20 Marks)
i) Methods of Teaching English Language and Literature
ii) Materials for Language Teaching
iii) Using Technology in Language Teaching
iv) Assessing Language Skills

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 Objective type questions on Unit I	10x1=10
II.	Short notes on Unit I (2 out of 4)	2x05=10
III.	Short notes on Unit II (4 out of 6)	4x05=20
IV.	Short notes on Unit III (4 out of 6)	4x05=20
V.	Short notes on Unit IV (4 out of 6)	4x05=20
Total		80

Or

Semester V: DSEENG110B - Media and Communication
(4 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit 1: (1 hr, 20 Marks)
1. Define Media
2. Types of Media
3. Role and Importance of Media Today
4. Advantages and Disadvantages of Media

Unit II (1 hr, 20 Marks)
1. Define Communication and its Types
2. Importance of Mass Communication
3. Forms of Mass Communication
4. Mass Communication and Globalization

Unit III: (1 hr, 20 Marks)
1. Digital Media: E-book, E-magazine, E-journal, E-newspaper
2. Use of English in Digital Media
3. Web Writing - Blogging.- Profile Writing – Caption Writing
4. News Writing : Inverted Pyramid, Headline, Blurb, Lead

Unit IV (1 hr, 20 Marks)
1. Advertisement in Different Media
2. Promotional Literature: Pamphlets, Brochures, Classifieds, Text, Logo.
3. Language in Commercials
4. Job opportunities in Media

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	Short notes on Unit I (4 out of 6)	4X05=20
II.	Short notes on Unit II (4 out of 6)	4X05=20
III.	Short notes on Unit III (4 out of 6)	4X05=20
IV.	Short notes on Unit III (4 out of 6)	4X05=20
Total		80

Reference Books

1. Cambridge English for the Media - Elizabeth Lee and Nick Ceramella
2. Understanding Media - Marshall McLuhan
3. English for the Media – Latha Nair, Shelton Pinheiro, Priya K Nair, Vidhu Mary John

Semester VI: DSEENG111 – English Language and Phonetics
(4 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit I: The English Language (2 hrs, 20 Marks)

1) Characteristics of the English Language
2) Development of the English Language: Old English, Medieval English, Modern English
3) Vocabulary: Influences on the English Language: Greek, Latin, French
4) Makers of the English Language: the Bible Translations, Shakespeare and Milton
5) Development of Dictionaries
6) English as a Global Language

Unit II: Introduction to Phonetics (2 hrs, 30 Marks)

1) Organs of Speech and Speech Mechanism
2) Classification of Speech Sounds
3) Descritption Speech Sounds
4) Transcription of Words
5) Word stress

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 Comprehension questions on Unit I	10x1=10
II.	Essay type question Unit I (1 out of 2)	1x10=10
III.	Essay type question Unit I 1 out of 2)	1x10=10
IV.	Essay type question Unit I 1out of 2)	1x10=10
V.	Essay type question Unit I (1 out of 2)	1x10=10
VI.	Short notes on Speech sounds (2 out of 4)	2x05=10
VII.	Word Transcription	10x1=10
VIII.	Word Stress	10x1=10
Total		80

Reference books

1. The English Language – C. L. Wren
2. An Outline History of the English Language. F. T. Wood
3. English Language and Phonetics – S. B. Biradar

Semester VI: DSEENG112A - Indian English Literature
(4 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit I: History of Indian English Literature (1 hr, 30 Marks)
1. Pre-Independence Indian English Poetry and Fiction
2. Post Independence Indian English Literature up to 2010: Poetry, Fiction and Drama

Unit II: Selected Poems (1 hr, 20 Marks)
1) Our Casuarina Tree - Toru Dutt
2) Let me not Forget - Rabindranth Tagore
3) Entertainment - Nissim Ezekiel
4) The Old Playhouse - Kamala Das
5) Obituary - A. K. Ramanujan

Unit III: The Vendor of Sweets - R. K. Narayan (2 hrs, 30 Marks)

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	10 Objective questions Unit I	1X10=10
II.	Essay type question on Unit I (1out of 2)	1X10=10
III.	Essay type question on Unit I (1out of 2)	1X10=10
IV.	Essay type question on Unit II (1out of 2)	1X10=10
V.	Essay type question on Unit II (1out of 2)	1X10=10
VI.	Essay type question on Unit III (1 out of 2)	1X10=10
VII.	Essay type question on Unit III (1 out of 2)	1X10=10
VIII.	Short notes on Unit III (2 out of 4)	2X05=10
Total		80

Reference Books
1. History of Indian English Literature – M. K. Naik
2. Indian English Literature – Basavaraj Naikar
3. Indian English Litrarture – Srinivas Iyengar

OR

Semester VI: DSEENG112B - Translation Studies
(4 Credits; 4 Teaching hours; Theory 80 + IA 20 = 100; 3 hrs Exam)

Unit-I: Introduction to Translation (1 hr, 20 Marks)
1. Definition of Translation—Translating from source language to target language
2. Purpose of Translation: literary, cultural, knowledge bridge, self-other interaction
3. Importance of Translation
4. Types of Translation

Unit -II: Approaches to Translation (1 hr, 20 Marks)
1. Domestication: Readability in the target language
2. Foreignisation: Faithfulness to the source language

Unit-III: Methods of Translation (1 hr, 20 Marks)
1. Meta-phrase—sense translation based on difference
2. Paraphrase—word-to-word translation based on equivalence
3. Imitation—regulated transformation
4. Interpretation and Adaptation

Unit –IV: Problems of Translation (1 hr, 20 Marks)
1. Cultural Gap
2. Untranslatability
3. Translation as appropriation of indigenous languages by English
4. Translation of Kannada into English or vice versa or Paraphrasing of a poem

IA : 20 Marks (2 Internal Tests: 4 and 10 marks; Attendance 3 & Tutorials 3 marks each)
Theory: 80 Marks
Total : 100 Marks

Question Paper Pattern

I.	Short notes on Unit I (4 out of 6)	4X05=20
II.	Short notes on Unit II (4 out of 6)	4X05=20
III.	Short notes on Unit III (4 out of 6)	4X05=20
IV.	Short notes on Unit III (4 out of 6)	4X05=20
Total		80

Referance Books
Angelelli, Claudia and Baer, James Brian (eds). 2016. Researching Translation and Interpreting. London: Routledge.
Baker, Mona, and Gabriela Saldanha (eds). 2009. Routledge Encyclopedia of Translation Studies. Second edition. London: Routledge.
Bermann, Sandra, and Catherine Porter (eds). 2014. A Companion to Translation Studies. Malden/Oxford: Wiley Blackwell. Oxford: Oxford University Press.
Millan, Carmen and Bartrina, Francesca (eds). 2013. The Routledge Handbook of Translation Studies. London and New York: Routledge.

Part 3: SEC – Skill Enhancement Course (III to VI Semesters)

Introduction: The students of these courses have to deal with the challenges of life as well as occupation as soon as they finish their undergraduate programme. It is an advantage for them to learn Communicative English for precise and specific use in their future life and occupation. Suitable verbal communication skills give power to them to accomplish their scholastic and professional goals. It improves their societal associations. For this reason, these courses are designed to prepare students in essential communicative language skills.

Semester III: SECENG113 – Soft Skills

(2 Credits; 2 Teaching hours; 40 Theory + 10 IA = 50; 2 hrs Exam)

Unit I

1. Definition and Importance of Soft Skills
2. Leadership Skills. Companies want employees who can supervise and direct other workers.

Unit II

1. Teamwork
2. Communication Skills

Unit III

1. Problem Solving Skills
2. Work Ethics

Unit IV

1. Flexibility/Adaptability
2. Interpersonal Skills

IA : 10 Marks (1Internal Test: 05 marks; Attendance 2 marks & Language Activity 3 marks)

Theory: 40 Marks

Total : 50 Marks

Question Paper Pattern

I.	2 questions each on Unit 1	2X5=10
II.	2 questions each on Unit 2	2X5=10
III.	2 questions each on Unit 3	2X5=10
IV.	2 questions each on Unit 4	2X5=10
Total		50

Semester IV: SECENG114 - Business Correspondence
(2 Credits; 2 Teaching hours; 40 Theory + 10 IA = 50; 2 hrs Exam)

1. Enquiry and Reply Letters
2. Orders and Execution Letters / Cancellation Letters
3. Complaints and Settlements
4. Request for Loans / Overdrafts and Suitable Replies

IA : 10 Marks (1Internal Test: 05 marks; Attendance 2 marks & Language Activity 3 marks)
Theory: 40 Marks
Total : 50 Marks

Question Paper Pattern

I.	2 questions each on Unit 1	2X5=10
II.	2 questions each on Unit 2	2X5=10
III.	2 questions each on Unit 3	2X5=10
IV.	2 questions each on Unit 4	2X5=10
Total		50

Semester V: SECENG115 - Media and Communication Skills
(2 Credits; 2 Teaching hours; 40 Theory + 10 IA = 50; 2 hrs Exam)

1. Mass Communication and Globalization
2. Forms of Mass Communication
3. Writing Pamphlets and Posters
4. Creating jingles and taglines

IA : 10 Marks (1Internal Test: 05 marks; Attendance 2 marks & Language Activity 3 marks)
Theory: 40 Marks
Total : 50 Marks

Question Paper Pattern

I.	2 questions each on Unit 1	2X5=10
II.	2 questions each on Unit 2	2X5=10
III.	2 questions each on Unit 3	2X5=10
IV.	2 questions each on Unit 4	2X5=10
Total		50

Semester VI: SECENG116 – Media Writing
(2 Credits; 2 Teaching hours; 40 Theory + 10 IA = 50; 2 hrs Exam)

1. Script writing for TV and Radio
2. Writing News Reports and Editorials
3. Editing for Print and Online Media
4. Writing an editorial on a burning issues

IA : 10 Marks (1Internal Test: 05 marks; Attendance 2 marks & Language Activity 3 marks)
Theory: 40 Marks
Total : 50 Marks

Question Paper Pattern

I.	2 questions each on Unit 1	2X5=10
II.	2 questions each on Unit 2	2X5=10
III.	2 questions each on Unit 3	2X5=10
IV.	2 questions each on Unit 4	2X5=10
Total		50

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

GEOGRAPHY

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

DEPARTMENT OF GEOGRAPHY

B. A / B. Sc. Semester wise Geography Course Scheme under Choice Based Credit System (CBCS) with Effect from 2020-21 Onwards

Sem.	Title of the Paper	Paper Code	Teaching Hours/ Week	Duration of Exam	Evaluation Pattern			Credits
					I A	Sem. End Exam	Total	
I	***Theory – 1.1*** **Physical Geography- Part A**	DSC1.1	5	3	20	80	100	3
	Practical – 1.2 ***Introduction to cartography***	DSC- 1.2	3	3	10	40	50	1
II	***Theory – 2.1*** **Physical Geography- Part B**	DSC- 2.1	5	3	20	80	100	3
	Practical – 2.2 ***Representation of Relief***	DSC- 2.2	3	3	10	40	50	1
III	***Theory – 3.1*** **Human Geography**	DSC- 3.1	5	3	20	80	100	3
	Practical – 3.2 ***Map Projections***	DSC- 3.2	3	3	10	40	50	1
	Skill Enhanced Course (Compulsory Paper)							
	Theory – 3.3 (Compulsory Paper) **Basics of Physical Geography**	SEC- I - 3.3	2	2	10	40	50	2
IV	***Theory – 4.1*** **Regional Geography of Karnataka**	DSC- 4.1	5	3	20	80	100	3
	Practical – 4.2 ***Basics Statistics***	DSC- 4.2	3	3	10	40	50	1
	Skill Enhanced Course (Compulsory Paper)							
	Theory – 4.3 (Compulsory Paper) **Geography of Karnataka**	SEC- II 4.3	2	2	10	40	50	2
V	***Theory – 5.1 [Compulsory]*** **Environmental Geography**	DSE- 5.1	4	3	20	80	100	3
	(Choice any one from 5.2-a or 5.3-b) ***Theory – 5.2-a*** **Development of Modern Geography** ***Theory – 5.2-b*** **Population Geography**	DSE- 5.2 DSE- 5.3	4 4	3 3	20 20	80 80	100 100	3 3
	Practical 1st - 5.3 **Interpretation of SOI Topographical Maps**	DSE- 5.4	3	3	10	40	50	1
	Practical 2nd – 5.4 **Representation of Geographical Data**	DSE- 5.5	3	3	10	40	50	1
	Skill Enhanced Course (Compulsory Paper)							
	Theory – 5.5 **Population Geography (Compulsory Paper)**	SEC- III – 5.6	2	2	10	40	50	2

VI	***Theory – 6.1*** ***[Compulsory]*** **Regional Geography of India**	**DSE- 6.1**	**4**	**3**	**20**	**80**	**100**	**3**
	(Choice any one from 6.2-a or 6.2-b) ***Theory – 6.2-a*** **Settlement Geography**	**DSE- 6.2-a**	**4**	**3**	**20**	**80**	**100**	**3**
	Theory – 6.2-b **Regional Planning and Development**	**DSE- 6.2-b**	**4**	**3**	**20**	**80**	**100**	**3**
	Practical 1st – 6.3 **Interpretation of IMD Weather Reports**	**DSE- 6.3**	**3**	**3**	**10**	**40**	**50**	**1**
	Practical 2nd – 6.4 **Field Based Project work/Report**	**DSE- 6.4**	**3**	**3**	**10**	**40**	**50**	**1**
	Skill Enhanced Course (Compulsory Paper)							
	Theory – 6.5 **Geography of India (Compulsory Paper)**	**SEC- IV – 6.5**	**2**	**2**	**10**	**40**	**50**	**2**

Note:

DSC: Discipline Specific Course Papers [All DSC Papers are Compulsory for I sem to IV sem]

DSE : Discipline Specific Elective Papers [Students can select any one elective papers from DSE -5.2-a or 5.2-b

for V semester and DSE – 6.2-a or 6.2-b for VI semester.

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REGULATION AND SCHEME OF INSTRUCTIONS

Regulations governing three years Semesterized, Bachelor Degree Programmes of Rani Channamma University, Belagavi (framed under Section 44(1) (c) of the K.S.U. Act 2000) with effect from 2020-21 onwards.

I. Goals & Objectives:

The following aims have been kept in view while designing the syllabus of Bachelor's Degree Programme (B.A/B. Sc) in Geography as one of the optional subjects.

- To bring the geographical awareness among the students.
- To provide a fundamentals of spatial information of the earth surface.
- To train and teach geography effectively at various levels in the educational institutions.
- To train and provide information related to spatial and regional level of planning.
- To provide adequate geographical knowledge and skills as needed for the competitive examinations.
- Organizing the professional tours for every year to cultivate research culture among the students.

II. Admission Criteria:

A candidate should have passed PUC/10+2 with Geography/other subject is eligible to choose Geography as one of the optional subjects at the under Graduate Course. The candidate should have obtained at least 40 per cent of aggregate marks. Relaxation in respect of SC/ST etc. will be followed as per the prevailing rules of the University. Other rules for admissions are as per the University notification from time to time.

III. Medium of Instruction:

The medium of instruction shall be English, however, the students are allowed to write the examination in Kannada Medium also.

IV. Attendance:

A minimum of 75% of attendance in each semester (both theory and practical) is compulsory.

V. Scheme of Instruction:

1. The M.A/M.Sc Master's Degree holders in Geography can only teach the subject at UG Level. However, NET/SLET/Ph.D. is necessary.
2. Geography as an optional subject at Under Graduate (UG) Level, which consists of *six* semesters, it includes eight *theory* papers (DSC) and *eight practical* papers (DSC). There will be **one theory** paper and **one practical** paper in the each semester **i.e.** ***I, II, III, and IV*** *semesters*. Whereas, in the ***V and VI*** semesters, there will be ***two theory*** *papers* and ***two practicals*** each of ***100 and 50*** *marks* respectively. The duration of teaching hours for the theory paper will be ***five*** *(05) hours per week* for **I** to **IV** semester, whereas the duration of teaching hours for the theory paper shall be **four** (04) hours for **V** and **VI** semesters. The practical paper shall be ***three*** *(03) hours per week* for **I** to **VI** semesters. Each theory paper will have 5 modules/units (divided into chapters/units). The duration of each semester is being 16 weeks excluding examination period.
In addition to eight theory papers (DSC) there shall be Skill Enhancement Courses (SEC) from **IV** to **VI** semester which are compulsory papers.
3. The Practical classes are to be conducted in separate batches. Each batch consists of 15 students with one teacher, for 16-27 students with two teachers for three hours per week. In case, if student number is below 15 is also considered as one batch with one teacher. Each batch (depends on the number of students) must be supervised by one/two teachers for giving instructions, supervision of practicals and correction of journals/records.

VI. Scheme of Theory Examinations:

1. Theory course shall carry 100 marks of which 80 marks allotted for semester end examination and 20 marks for internal assessment (IA) that will be carried out as per the University norms.
2. Each theory course will have a question paper of 3 hours duration and the maximum of 80 marks. Minimum marks to pass in each paper of theory are 40 percent.
3. There shall be three sections in every theory question papers viz. A. B. & C. **Section A** shall have 12 questions of each 2 marks and candidate have to attempt 10 questions only (10X2=20 marks). **Section B** shall have 8 questions of each 5 marks and the candidate have to attempt 6 questions only (6X5=30 marks). **Section C** shall have 6 questions of each 10 marks and the candidate has to attempt 3 questions (3X10=30 marks).

VII. Scheme of Practical Examination:

1. Each practical course shall carry 50 marks of which **10 marks** are allotted for IA marks (out of which **07 marks** are kept for practical records journals/ assignments/ dissertation and **03 marks** allotted for attendance.) The **40 marks**

examination will be conducted at the end of each semester, out of which **5 marks** will be kept for viva and **35 marks** for written examination as per the instructions given by the University.

2. Each practical course will have a question paper of 3 hours duration and the maximum of 40 marks.

3. The practical examination is to be conducted in batches and each batch consists of minimum of 15 candidates.

4. There will be one internal examiner and one external examiner to conduct the practical examination for each batch in each semester.

5. Minimum marks to pass in each paper of practical are 40 percent.

6. In the VI semester, there will be one compulsory practical paper i.e. ***Field Work/Project/ Dissertation*** and concerned teacher has to select study area (Village/Block/Taluka/City level) for the preparation of final dissertation report in consultation and approval with the concerned HOD/ Principal of the institution.

The field work/project/ dissertation carries ***40 marks****, of which* ***15 marks*** *are allotted to preparation of the dissertation and* ***25 marks*** *are kept for* ***viva-voce*** *of the candidates (Objectives/ methodology/ database /organization of the work/ presentation/analytical skill and answering of the questions by the students).*

7. Each candidate shall complete the laboratory work of the journal/practical records, it shall be certified and signed by both the concerned course teacher and the Head of the Department of Geography of the concerned college compulsorily, to certify that the candidate has satisfactorily completed the prescribed course in practical and same should be produced at the time of practical examination. No students shall be allowed for the examination without completed journal/practical records.

8. There is no provision for revaluation or seeking improvement in practical paper examination and internal assessment marks.

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Objectives: The objective of the course is to familiarize the students with the need for understanding of physical geography with reference to certain fundamental concepts, focusing on the unity of Geomorphology in the earth materials and the processes with or without an element of time. Process of component of Geomorphology is segmented into the internal and external processes of landscape evolution.

Course structure : One Theory and One Practical

Teaching Theory **:** 05 hours per week

Practical **:** 03 hours per week

Examination **:** One Theory paper of 80 Marks and 20 Marks for internal assessment (IA), one Practical of 40 Marks and 10 Marks for internal assessment (IA). Out of 10 IA marks 7 marks are kept for practical records / journals and 3 marks for attendance.

Units	Topic	Teaching Hours
I	Introduction to Physical Geography: Meaning, definition, nature, and scope of Physical Geography, Relationship between Physical Geography and other branches of sciences, Significance of Physical Geography.	08
II	Earth as a Planet: Latitude and Longitudes: Rotation and Revolution of the earth, Origin and Evolution of the Earth; Nebular & Tidal theory, Interior of the Earth, Earth Movements: Orogenic and Epeirogenic movements: Faults, Folds & related land forms.	10
III	Wegner's theory of Continental Drift; Weathering and its types; Rocks; origin, types and distribution and their economic significance	12
IV	Endogenetic & Exogenetic Forces; Earthquakes and Volcanoes and its distribution, causes and effects, Examples of earthquakes in India	10
V	Denudation- Work of river, Wind, Glacier and its effects. Morphometric Analysis: Catchment/basin area, Water dividing line, Stream ordering, Drainage pattern. Major deltas of Indian rivers.	12
	Total	**52 hours**

Reference:

1. Physical Geography: Strahler & Strahler
2. Physical Geography: R. N. Tikka
3. Physical Geography: Majid Hussain
4. Physical Geography: Das Gupta & Kapoor
5. Physical Geography (Kannada): Mallappa P
6. Physical Geography (Kannada): Ranganath
7. Physical Geography (Kannada): M. B. Gaudar
8. Physical Geography (Kannada): S. S. Nanjannavar
9. Fundamentals of Physical Geography: F. J. Mankhouse

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PRACTICAL

Units	Topic	Teaching Hours
I	Cartography: Definition and importance of Cartography and cartography as a science of human communication	05
II	Maps and Scales: Maps: Meaning and Classification of maps, Characteristic features and uses of maps Scale: Definition and types of Scale, Conversion of Scale; V.S. into R.F. (five exercises each) and R.F. into V.S. (five exercises each). Calculation of Distance and Time: Latitudinal and Longitudinal	10
III	Construction of Scale: Graphical/Plane, Comparative, Time, Pace and Diagonal scale and their importance (2 exercises each)	12
IV	Enlargement and Reduction of Maps by Graphical Method (three exercises each)	08
V	Viva	
	Total	**35 hours**

Reference:

1. R. L. Singh: Elements of Practical Geography
2. Gopal Singh: Practical Geography
3. Dr. Ranganath: Practical Geography (Kannada)
4. Singh and Kanayia: Practical Geography
5. R. P. Misra and Ramesh: Fundamental of Cartography
6. M. F. Karennavar & S. S. Nanjannavar: Practical Geography (Kannada)
7. Pijushkanti Saha & Partha Basu- Advanced Practical Geography.

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IInd SEMESTER THEORY PAPER – 2.1 PHYSICAL GEOGRAPHY – Part B

Objectives: The aim of this course is to provide an understanding of weather and climate phenomena, dynamics of global climates, interaction between living organisms with climate and physical environment. Further, this paper is to provide in-depth understanding of different oceans, such as evolution of the oceans, physical and chemical properties of seawater, atmospheric and oceanographic circulation.

Course structure : One Theory and One Practical
Teaching Theory : 05 hours per week (assignment / seminar/ discussion)
Practical : 03 hours per week
Examination : One Theory paper of 80 Marks and 20 Marks for internal assessment (IA) One Practical of 40 Marks and 10 Marks for internal assessment (IA) (out of 10 IA marks 7 marks for practical record and journal and 3 marks for attendance).

Units	Topic	Teaching Hours
I	Weather and Climate: Definition and significance of Climatology, Distinction between weather and climate, elements and controlling factors of weather and climate, Composition and structure of atmosphere	08
II	Atmospheric Temperature: Insolation and Heat Balance (Budget), Vertical & Horizontal distribution of Temperature & Isothermal Maps. Atmospheric Pressure: measurement of pressure, pressure belts and Isobaric Maps. Winds: Planetary, Seasonal & Local winds, Cyclones and Anti-Cyclones	12
III	Atmospheric Moisture: Hydrological Cycle, Humidity, Clouds and its types, condensation and types of Rainfall.	08
IV	Oceanography: Meaning & Significance of Oceanography, Distribution of Land and Water bodies, Hypsographic curve, Bottom relief of Oceans; continental self, slope and deep sea plains.	12
V	Distribution of Temperature and Salinity of Ocean Water, Water Waves, Tidal theories and types of tides, Ocean Currents: Pacific, Atlantic & Indian ocean, Coral reefs, Oceans as a store house of mineral and food resources, Human impact on marine environment.	12
	Total	**52 hours**

Reference:

1. Strahler & Strahler: Physical Geography
2. R. N. Tikka: Physical Geography
3. Majid Hussain: Physical Geography
4. Das Gupta & Kapoor: Physical Geography
5. Mallappa P: Physical Geography (Kannada)
6. Ranganath: Physical Geography (Kannada)
7. M.B.Gaudar: Physical Geography (Kannada).

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PRACTICAL

Units	Topic	Teaching Hours
I	Significance of Relief Features in Physical Geography	02
II	Different Methods of Representation of Relief; Pictorial/Qualitative methods- Hachures, Layer- tinting/Colouring and Hill shading and Mathematical/Quantitative methods- Contours, Form lines, Spot heights, Bench marks and Trigonometrical stations	08
III	Contour Diagrams: Drawing of cross section of the following geographical features with brief explanation; a. Hills with different types of Slopes- uniform, gentle, steep,convex, concave and undulating slopes b. Types of Valleys: V-Shaped Valley, U-Shaped Valley, Gorge, Cirque and Hanging Valley c. Landforms: Mountain, Plateaus, Mesa, Escarpment and Spur d. Landforms: Waterfall, Rapids, Cliff, Ridge/Saddle, Pass and Volcano with Crater e. Coastal Landforms: Fiord and Ria coast	25
IV	Viva	
	Total	35 hours

Reference:

1. R. L. Singh: Elements of Practical Geography
2. Gopal Singh: Practical Geography
3. Dr. Ranganat: Practical Geography (Kannada Version)
4. Singh and Kanoj: Practical Geography
5. R. P. Misra and Ramesh: Fundamental of Cartography
6. M. F. Karennavar & S. S. Nanjannavar: Practical Geography
7. M .F. Karennavar & S. S. Nanjannavar: Practical Geography (Kannada Version)
8. Pijushkanti Saha & Partha Basu: Advanced Practical Geography

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Objectives: To understand the nature of man- environment relationship and human capability to adopt and modify the environment under its varied conditions from primitive life style to the modern living; to identify and understand environment and population in terms of their quality and spatial distribution pattern and to comprehend the contemporary issues facing the global community.

Course structure : One Theory and One Practical
Teaching Theory : 05 hours per week
Practical : 03 hours per week.
Examination : One Theory paper of 80 Marks and 20 Marks for internal assessment (IA) One Practical of 40 Marks and 10 Marks for internal assessment (IA) (out of 10 IA marks 7 marks for practical record and journal and 3 marks for attendance).

Units	Topic	Teaching Hours
I	Nature, Scope and Significance of Human Geography, Relationship between Man and Environment. Concepts and recent trends and different approaches in Human Geography.	**10**
II	Broad Racial groups of the world, classification of races, main characteristics and distribution pattern of major races of world.	**10**
III	Impact of environment on the mode of life on Primitive population groups of the World, Pygmies, Bushman, Sakais, Semongs, Eskimos and Kirghies.	**12**
IV	Indian tribal groups: Mode of life of Todas, Gonds, Santals, Bhills and Nagas and their socio-economic activities.	**10**
V	Population: Growth, trend of population in the world and Distributional pattern of Density of population in the world and factors influencing the distribution of population.	**10**
	Total	**52 hours**

Reference:

1. Alexander - Economic Geography
2. Majid Hussain- Human Geography
3. Peter Haggett- Locational Analysis in Human Geography
4. Davis K. - Man & Earth
5. Ranganth andf P. Mallappa- Human Geography (Kannada)
6. P.Mallappa.- Human Geography (Kannada)
7. M.B.Goudar.- Human Geography(Kannada)
8. S.S.Nanjannvar - Human Geography (Kannada)

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PRACTICAL

Units	Topic	Teaching Hours
I	Map Projection : Introduction , meaning, classification and importance	05
II	Zenithal Projections : Graphical construction, properties of Following projections a. Polar Zenithal Gnomonic projection b. Polar Zenithal Stereographic projection c. Polar Zenithal Orthographic project	10
III	Conical Projections: Graphical construction, properties of following Projections a. Conical projection with one standard parallel b. Conical projection with two standard parallel c. Bonne's projection	10
IV	Cylindrical Projections: Graphical construction, properties of following Projections a. Simple cylindrical projection b. Cylindrical Equal area projections and c. Mercator's projection	10
V	Viva	
	Total	35 hours

Reference:

1. R. L. Singh: Elements of Practical Geography
2. Gopal Singh: Practical Geography
3. Dr. Ranganat: Practical Geography (Kannada Version) Singh
4. Kanoj: Practical Geography
5. R. P. Misra and Ramesh: Fundamental of Cartography
6. M. F. Karennavar & S. S. Nanjannavar: Practical Geography'
7. M .F. Karennavar & S. S. Nanjannavar: Practical Geography (Kannada Version)
8. Pijushkanti Saha & Partha Basu: Advanced Practical Geography

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Units	Topic	Teaching Hours
I	Meaning and definition of Physical Geography, the solar system, Latitudes, Longitudes (Meridians and Parallels), International Date Line (IDL) , Indian Standard Time (IST), Greenwich Mean Time (GMT), Rotation and Revolution of the earth and their effects,	10
II	Interior structure of the Earth, Rocks and weathering and their types, Volcanoes, Earthquakes; their causes and effects.	05
III	Weather and Climate, composition and structure of Atmosphere, Insolation and controlling factors.	05
IV	Atmospheric Pressure, pressure Belts, types of wind, Hydrological cycle, Air masses, Types of rainfall, cyclones ; their causes and effects.	10
V	Bottom Relief of ocean water ; Continental Shelf, Slope, Deep, Ridges, Plane. Distribution of temperature and Salinity, Ocean currents, Tides and its types, coral reefs and its types. Ocean as a store house of food and minerals.	10
	Total	**40 Hrs**

References

1.Fundaments of Physical Geography –Majid Husain
2.Physical Geography – Savindar singh
3.Physical Geography –R.N.Tikka
4. Physical Geography – D.S.Lal
5.Principles of Physical Geography- Dr.Ranganath(Kannada&English)

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IVth SEMESTER THEORY PAPER – 4.1 : REGIONAL GEOGRAPHY OF KARNATAKA

Objectives: To understand the Karnataka regions in terms of various physical divisions, their important characteristics and intra-regional disparities in agriculture and industries and to analyze natural and human resource endowments and their conservation and management. The main purpose of this paper is to gain knowledge and understand regional strength of the region and to motivate the students for competitive exams.

Course Structure : One Theory and One Practical
Teaching Theory : 05 hours per week
Practicals : 03 hours per week.
Examination : One Theory paper of 80 Marks and 20 Marks for internal assessment (IA). One Practical of 40 Marks and 10 Marks for internal assessment (IA) (out of 10 IA marks 7 marks for practical record and journal and 3 marks for attendance).

Units	Topic	Teaching Hours
I	Karnataka : Location and Extent, Physical divisions, Drainage, Climate, Soils and Natural Vegetation.	12
II	Water Resource and Irrigation: Types of irrigation and River projects- Krishna, Cauvery and Tungabhadra. Agriculture: Meaning and importance of Horticulture and Floriculture. Cultivation, production and distribution of Rice, Pulses, Sugarcane, Cotton, and Coffee.	10
III	Mineral Resources: Distribution and Production of Iron ore, Manganese and Bauxite. Hydel and Thermal Power Plants and their economic significance.	10
IV	Industries: Location Factors of Industries, Distribution and Production of Iron and Steel, Sugar, Cotton and Paper industry in Karnataka. Transport: Road, Railway and Air, Major Ports of Karnataka.	10
V	Population – Growth and Density of Population. Urbanization: Meaning, Trends of Urbanization in Karnataka. Tourism: Meaning, Significance and major tourist centers in Karnataka. Locate the important elements on the given map of Karnataka like - hills, rivers, projects, soils, roads, towns and tourist centers, major cities, national parks and sanctuaries, major ports. *(Note: Staff in charge should supply the outline map of Karnataka and train the students and it has to be treated as compulsory question in semester end examination.)*	10
	Total	**52 hours**

Reference:

1. Karnataka State Gazetteer: Volume I & II
2. P. Mallappa: Geography of Karnataka ((English & Kannada Version)
3. Misra R.P: Geography of Mysore State
4. NBK Reddy and Murthy G.S: Regional Geography of Mysore State
5. Ranganath: Regional Geography of Karnataka (English & Kannada Version)
6. Nanjannavar S. S: Geography of Karnataka. (English & Kannada version)

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PRACTICAL

Units	Topic	Teaching Hours
I	Definition and meaning, use of statistical methods in Geography Data: Defining Data, Types of Data: Nominal, Ordinal, Interval and Ratios, Collection of Data: Primary and Secondary Data and Classification and Tabulation of data	08
II	Sampling: Methods and Types of Samplings Formation of Frequency Distribution: Frequency Table, Drawing of Histogram, Frequency Curve, Polygon and Ogive Curve.	08
III	Measures of Central Tendency: Mean, Median and Mode	08
IV	Measures of Dispersion : Range, Quartile Deviation, Mean Deviation, Standard Deviation and Co-efficient of Variation. Correlation: Rank order Correlation and Pearson's Product Movement correlation	11
V	Viva	
	Total	**35 hours**

Reference :

1. R.L.Singh- Elements of Practical Geography
2. Gopal Singh- Practical Geography
3. Dr. Ranganath - Practical Geography : (Kannada)
4. Singh and Kanoj- Practical Geography
5. R.P.Misra and Ramesh- Practical Geography :Fundamental of Cartography
6. M.F.Karennavar & S.S.Nanjannavar.- Practical Geography : (Kannada)
7. B.S.Negi.- Statistical Geography
8. Basic Statistics : S.P. Gupta
9. Statistical Methods In Geographical Studies : Mahammad Aslam.
10. Advanced Practical Geography-Pijushkanti Saha & Partha Basu

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RANI CHANNAMMA UNIVERSITY, BELAGAVI

'Vidhyasangam'

B. A. /B. Sc. SYLLABUS IN GEOGRAPHY

IVth SEMESTER – SKILL ENHANCEMENT COURSE (SEC)

SEC PAPER – 4.3 : GEOGRAPHY OF KARNATAKA

Units	Topic	Teaching Hours
I	Location, Extent, Size and Administrative and physical divisions of Karnataka, Major Rivers, Climate – mechanism of monsoon, soils and Vegetation of Karnataka.	10
II	Major River projects - Krishna, Cauvery and Tungabhadra projects, Major agriculture crops: food crops, pulses, commercial crops, plantation crops, horticultural crops and their method of cultivation.	05
III	Minerals and Power Resources of Karnataka- Iron ore, Bauxite Hydel, Thermal power and solar energy and its uses.	05
IV	Industries and Transport : Locational factors of industries, Iron & steel, Sugar, paper, cotton textiles and IT industries of Karnataka, Major Roads, Railways, Airports and Sea Ports of Karnataka	10
V	Population and Urbanization- Growth, Distribution and density of population in Karnataka, Urbanization in Karnataka, Major cities and Metropolitan cities.	10
	Total	**40 Hrs**

References

1.Geography of Mysore state – Dr,T.N. Achutarao
2. Geography of Karnataka- Dr. Ranganath
3. Geography of Karnatak- P.Mallappa
4. Geography of Karnataka – S.S.Nanjannavar

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Objectives: The basic objective of this course is to apprise the students with the interrelationship between Man and his environment within which he lives and his linkages with other organisms. The course further aims to give broad perspective ideas of environment, ecology and ecosystem. The information and their interaction between living organisms with physical and cultural environment. The importance of conserving bio-diversity to maintain ecological balance has also been emphasized in this course.

Course Structure : One Theory and One Practical
Teaching Theory : 04 hours per week
Practicals : 03 hours per week.
Examination : One Theory paper of 80 Marks and 20 Marks for internal assessment (IA). One Practical of 40 Marks and 10 Marks for internal assessment (IA) (out of 10 IA marks 7 marks for practical record and journal and 3 marks for attendance).

Unit	Topic	Teaching Hours
I	Definition, Scope and Content of Environmental Geography. The types of environment. Ecosystem: Structure, Functions and Energy flow and causes for ecological imbalance.	08
II	Biodiversity: Meaning and types of Biodiversity, Biodiversity at the local, regional and global level. Role of Govt. and NGO's in conservation of biodiversity. Threats to biodiversity.	12
III	Environmental degradation and its types, impact of man on environmental degradation, Pollution: Types of Pollution- Air, water, noise and soil, Causes and Effects of Pollution.	12
IV	Global Warming, Depletion of Ozone Layer and its controlling Measures. Waste management: Urban and industry and their effects.	10
V	Man and Environment relationship. Man's influence on Vegetation, Biotic Life, Climate, Soil and Water. Population Explosion and its impact on Environment, Management of quality of Environment and Human Health hazards.	10
	Total	**52 hrs.**

Reference:

1. R.B. Singh(1990) Environmental Geography, Heritage Publishers New Delhi.
2. Strahler. A.N. The Earth Sciences, Haper International Education, New York.
3. Strahler A.N.& Strahler.A.H, Geography of man's Environment, John Wiley & sons
4. Savinder Singh, Environmental Geography, Prayag Pustak Bhawan,1997.
5. Kates,BI &White.GF, The Environment as Hazards, Oxford, New York.
6. Saxena.H.M (2000) Environmental Geography, Rawat publication, New Delhi.
7. H.K.Gupta(Ed) Disaster Management, University Press, India, 2003.

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Objectives: This paper is intended to acquaint the students with distinctiveness of geography as a field of learning in social science and science as well as in natural science. The philosophy and methodology of the subject is discussed in length and to provide the students for comparative understanding of the development of the history of geographic thought.

Course structure : One Theory and One Practical
Teaching Theory : 04 hours per week
Practical : 03 hours per week.
Examination : One Theory paper of 80 Marks and 20 Marks for internal assessment (IA)
One Practical of 40 Marks and 10 Marks (7 marks for Journal/Practical records as internal assessment (IA) and 3 marks for attendance.

Units	Topic	Teaching Hours
I	Introduction to Geographical Thought-Philosophy of Geography, Early Modern Geography, Geography as a Spatial Science	10
II	Founders of Modern Geography: i.) Alexander Von Humbolt, ii) Carl Ritter, iii) Friedrich Ratzel iv) Vidal de la Blache, v) William Morris Davis vi) Ellen Churchill Sample vii) Halford J. Mackinder and viii) Richard Hartshorne	12
III	Development of Geography as a study of- a) Scientific Discipline, b) Man-Environment Relationship with reference to Determinism & Possibilism, c) Areal Differentiation d) Spatial Organization- Structure, Pattern & Process e) Inductive vs deductive, and f) Quantitative vs qualitative.	10
IV	Development of Scientific Method, Models, Hypothesis, Laws & Theories, Quantitative revolution.	10
V	Approaches in Geography- Positivism, Humanism, Radicalism, Behaviouralism and analogies and Paradigms and Philosophy in Geography.	10
	Total	**52 hours**

References:

1. Adhikari Sudeepta (1972) :Fundamentals of Geographic Thought Chaitanya Publishing House, Allahabad.
2. Cook and Johnson: Trends in Geography, Pergamow Press London.
3. Dickinson R.E.(1969): The Makers of Modern Geography, Rout/Edge & Kegan Paul, London.
4. Dixit R.D. (1999) : Development of Geographic Thought, Longmans India Limited
5. Free Man T.W.(1965): Geography As Social Science, Harper International Edition, Harper & Row Publishers, New York.
6. Harvey D. (1969): Explanation in Geography London, Edward Arnold.
7. Hartshorne R.(1959): Perspective on the Nature of Geography Rand McNally, Chicago.
8. Majid Hussain (1999): Geographic Thought Rawat Publishing House, Jaipur.
9. Holt Jensen, Arid: (1998): Geography: History and Concepts, Sage Publication, New Delhi.
10. Richard Peet (1977): Radical Geography - Alternative View Points On Contemporary Social Issue, Methuen & Co. Ltd, London.

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Objectives: The objectives of this course are to understand the spatial and structural dimensions of population and emerging issues. The course is further aimed at familiarizing the students with global and regional level problems and equips them for comprehending the Indian situation.

Course structure : One Theory and One Practical
Teaching Theory : 04 hours per week
Practical : 03 hours per week.

Examination : One Theory paper of 80 Marks and 20 Marks for internal assessment (IA) One Practical of 40 Marks and 10 Marks for internal assessment (IA) (out of 10 IA marks 7 marks for practical record and journal and 3 marks for attendance).

Units	Topic	Teaching Hours
I	Population Geography: Nature, Scope and Significance of Population Geography, Population Geography as Specialized Branch, Growth, distribution and density of population in India, Factors affecting the distribution of population.	12
II	Composition and Structure of Population: Age structure, Literacy, Sex ratio, Life expectancy, Working population and Occupational structure of population and Dependency ratio.	08
III	Human resources, optimum, over and under population, Population Pressure- causes and consequences Population Theories : Malthusian and Karl Mark's theory, Demographic Transitions and its stages.	15
IV	Population Change: Meaning and determents of Fertility, Mortality and their consequences. Migration; definition, types, pull and push factors and consequences of Migration.	10
V	Population policy in India, Population problems and remedial measures.	07
	Total	**52 hours**

Reference:

1. Clarke John: Population Geography
2. Threwartha: A Geography of Population World Pattern
3. Hussain M: Human Geography
4. Chandna: Population Geography
5. Siddu and Sawant: Population Geography
6. Garnier B.J: Geography of population
7. Ghosh B.N: Fundamentals of population Geography.

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PRACTICAL

Units	Topic	Teaching Hours
I	SOI Toposheets: Meaning and its importance, Indexing of SOI Toposheets, Marginal Information of Toposheets and Colours, Conventional signs and symbols used in Toposheets.	05
II	Theoretical background for the identification and interpretation of various features mainly (without supplying the toposheets) a) Landforms- mountains, plains and plateaus. b) Drainage- trellis, dendritic, parallel, radial and dispersing c) Natural Vegetation- trees, jungles, forests and its types d) Settlements- nucleated/compact, dispersed/scattered, linear and radial patterns. e) Transport- types of roads, railways and air.	10
III	A. Detail interpretation of given SOI Toposheets of the following features: (at least each of one exercise) 1. Relief 2. Drainage 3. Vegetation 4. Settlements 5. Means of communication 6. Irrigation and Land use B. Over all Interpretation of given SOI Toposheets (at least two exercise)	15
IV	Drawing of cross section and calculation of Vertical Exaggeration (at least three exercises).	05
V	Viva	
	Total	**35 hours**

References:

1. R.L.Singh- Elements of Practical Geography
2. Gopal Singh- Practical Geography
3. Dr. Ranganath - Practical Geography : (Kannada)
4. Singh and Kanoj- Practical Geography
5. R.P.Misra and Ramesh- Practical Geography :Fundamental of Cartography
6. M.F.Karennavar & S.S.Nanjannavar.- Practical Geography : (Kannada)
7. B.S.Negi.- Practical Geography
8. Pijushkanti Saha & Partha Basu- Advanced Practical Geography.

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RANI CHANNAMMA UNIVERSITY, BELAGAVI

'Vidhyasangam'

B. A. /B. Sc. SYLLABUS IN GEOGRAPHY

Vth SEMESTER PRACTICAL- II

PAPER – 5.4 : REPRESENTATION OF GEOGRAPHICAL DATA

PRACTICAL

Units	Topic	Teaching Hours
I	Relevance of Representation of Population, Statistical & Geographical Data	03
II	Graphical representation of Data: Bar Graphs: Single, Double, Multiple, Compound, Band Graph and their Interpretation. Line Graphs: Single, Double, Multiple Line Graphs, Climograph, Hythergraph, Ergo Graph, Pyramid Graph and their interpretation.	15
III	Diagrammatic representation of data: Pie Diagram, Block Pile, Sphere Diagram, Wind Rose and their Interpretation	07
IV	Maps: Dot Maps, Choropleth, Isopleth Maps and their Interpretation	05
V	Located Map Diagrams: Pie, Proportional Circles, Spheres & Block Diagrams (Note: By selecting suitable data at talukas in the district/districts in the state has to be represented by selecting these diagrams on the map.)	05
	Viva	
	Total	35 hours

(Note: *For each practical exercise, the staff in charge has to provide the recent suitable Data, outline maps and graphs to the students in regular practical classes)*

Reference:

1. R. L. Singh: Elements of Practical Geography
2. Gopal Singh: Practical Geography
3. Dr. Ranganat: Practical Geography (Kannada Version)
4. Singh and Kanoj: Practical Geography
5. R. P. Misra and Ramesh: Fundamental of Cartography
6. M. F. Karennavar & S. S. Nanjannavar: Practical Geography
7. M.F.Karennavar&S.S.Nanjannavar:Practical Geography (kannada Version)
8. Pijushkanti Saha & Partha Basu: Advanced Practical Geography

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Units	Topic	Teaching Hours
I	Population Geography: Meaning and definition of Population Geography. Sources of data – Census, Vital Statistics and National Sample Survey (NSS).	04
II	Growth, distribution and density of population with special reference to India, Factors affecting the distribution of population. Population policies in India.	10
III	Composition and Structure of Population: Age structure, Literacy ratio, Sex ratio, Life expectancy, and Dependency ratio. Characteristics of Rural and Urban population, population pyramid, occupational structure.	10
IV	Theories of population: Malthusian, Karl Marx and Demographic Transitions theory.	08
V	Population Dynamics: Fertility, Mortality, Fecundity. Migration – Definition, Types, Measures, Push and pull factors for migration. Problems and prospectus of population in India.	08
	Total	**40 hours**

Reference:

1. Clarke John: Population Geography
2. Threwartha: A Geography of Population World Pattern
3. Hussain M: Human Geography
4. Chandna: Population Geography
5. Siddu and Sawant: Population Geography
6. Garnier B.J: Geography of population
7. Ghosh B.N: Fundamentals of population Geography

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RANI CHANNAMMA UNIVERSITY, BELAGAVI

'Vidhyasangam'

B. A. /B. Sc. SYLLABUS IN GEOGRAPHY

VIth SEMESTER – OPT. THEORY (Compulsory)

PAPER- 6.1 - REGIONAL GEOGRAPHY OF INDIA

Objectives: To understand the India in terms of various physical divisions, their important characteristics and intra-regional and inter regional linkages and to analyze natural and human resource endowments and their conservation and management. The study also synthesis the students with development issues and policies and programmes design for regional development.

Course Structure : One Theory and One Practical

Teaching Theory : 04 hours per week

Practical **:** 03 hours per week.

Examination **:** One Theory paper of 80 Marks and 20 Marks for internal assessment (IA). One Practical of 40 Marks and 10 Marks for internal assessment (IA) (out of 10 IA marks 7 marks for practical record and journal and 3 marks for attendance).

Units	Topic	Teaching Hours
I	India : Location and Extent, Physiography, Drainage, Climate, Soil and Natural Vegetation and its importance	12
II	Water Resources and Irrigation: Multipurpose River Projects mainly- Bhakra-Nangal, DVC, Nagarjunasagar, Hirakud projects. Agriculture: Significance and types of Agriculture, Floriculture, Cultivation, distribution and production of Rice, Wheat, Sugarcane, Cotton, Tea and Coffee in India.	12
III	Mineral Resources: Distribution and Production of Iron ore, Manganese, Coal, Petroleum & Natural Gas. Industries: Industrial regions of India. Distribution and Production of Iron and Steel, Cotton textile, Sugar, Paper, Automobile and IT industry in India.	12
IV	Transport: Road and Railway, Major Ports: Mumbai, Kolkata, Chennai and Mangalore.	08
V	Population: Growth and Distribution of Population, Density of Population and Causes and Consequences of Growth and Distribution. Urbanization in India. Location of the following important elements on the given map of India- hills, rivers, soils, river projects, industries, roads, towns, tourist and urban centers, parks and wild centuries. (**Note:** Staff in charge should supply the outline map of India and train the students and it has to be treated as compulsory question in semester end examination.)	08
	Total	**52 hours**

Reference:

1. Ranjit Thirtha- Geography of India
2. Sharma & Coutinho- Economic and Commercial Geography of India
3. Tiwari.P.S- Geography of India
4. C.B.Mamoria - Economic and Commercial Geography of India
5. Ranganath - Regional and Economic Geography of India (Kannada)
6. Mallappa. P- Regional Geography of India (Kannada)

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Objectives: The aim is to acquaint the student with spatial and structural characteristics of Human settlement under varied environmental conditions, to enable them to diagnose spatial issues related to urban and rural settlements.

Course structure : One Theory and One Practical
Teaching Theory : 04 hours per week
Practical : 03 hours per week.
Examination : One Theory paper of 80 Marks and 20 Marks for internal assessment (IA) One Practical of 40 Marks and 10 Marks (7 marks for Journal/Practical records as internal assessment (IA) and 3 marks for attendance.

Units	Topic	Teaching Hours
I	Definition, Meaning, Nature and Scope of Settlement Geography, Rural as opposed to Urban.	08
II	Settlements: types of settlements, Rural Settlement as a service and market center. Central Place theory, Integrated Rural Development Planning (IRDP). Economic characteristics of cities and its functions.	12
III	Rural migration and its impact on agriculture and mining. Interaction between Rural-Urban settlements. Urbanization: Meaning, causes and consequences. Trends of Urbanization in India.	12
IV	Theories of Urban landuse: Concentric zone theory and Sector theory, Multi-nucli theory. Central Business District (CBD) and its Characteristics. Urban amenities and facilities.	12
V	Urban Fringe, urban continuum, urban sprawl, hinterland, umland and their characteristics. Slums: Meaning, formation of slums and its causes and consequences.	08
	Total	**52 hours**

References:

1. R.B.Mandal- Introduction to Rural settlements.
2. H.D.Clout- Rural Geography : An Introductory survey.
3. H.Carter- The study of Urban geography
4. Jahonson- Intruduction to Urban Geography
5. Dickinson R.E. -City and Region
6. Mandal R.B. - Urban geography.
7. Settlement Geography : Siddarth
8. Human Geography: Hussain. M.
9. R.Y.Singh- Geography of Settlement
10. Mallappa. -Human Geography(Kannada)
11. Ranganath- Fundamentals of Human Geography (Kannada)
12.S.S.Nanjannavar- settlement geography

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RANI CHANNAMMA UNIVERSITY, BELAGAVI

'Vidhyasangam'

B. A. /B. Sc. SYLLABUS IN GEOGRAPHY

VIth SEMESTER – THEORY PAPER- (Select any one)

OPT. PAPER 6.2 - b : REGIONAL PLANNING AND DEVELOPMENT

Objectives: To understand and evaluate the concept of region in geography and its role and relevance in regional planning, to identify the issues relating to the development of the region through the process of spatial organization of various attributes and their interrelationships. The course also aims to identify the causes of regional disparities and to suggest the measures for the development of the region.

Course structure : One Theory and One Practical

Teaching Theory : 04 hours per week

Practical : 03 hours per week.

Examination : One Theory paper of 80 Marks and 20 Marks for internal assessment (IA). One Practical of 40 Marks and 10 Marks for internal assessment (IA) (out of 10 IA marks 7 marks for practical record and journal and 3 marks for attendance).

Units	Topic	Teaching Hours
I	Concept of Region- types and hierarchy of regions - concept of planning- types of planning - approaches to Regional planning. Indicators of development.	10
II	Basic issues in Regional planning-Gross root level and systems of regional planning, Regional interactions and socio-economic and technological development.	12
III	Development strategy of planning: Need of planning for natural, social and economically background regions. Tribal area development planning.	10
IV	Regional Planning Processes – sectoral, temporal, spatial and multi-level planning. Centralized and Decentralized planning; Block and District level planning and Integrated Area Development Planning (IADP).	12
V	Role of urban centers in regional development. City regions and their problems.Regional Disparities. Planning Regions in Karnataka; Policies and Programmes for backward area development.	16
	Total	**60 hours**

References:

1. Ashish Sarakar(2011) : Regional planning in India.
2. Bhat L. S. : Aspects of Regional Planning in India.
3. Chandana. R. C. (2003) : Regional Planning A Comprehensive Text
4. Chaudhuri. J. R.(2009) : An Introduction to Development and Regional Planning with spatial reference to India
5. Dickinson R.E.(1964) : City and Region ; A Geographical Interpretation. Routledge and Keagan Paul.
6. Galasson John (1974) : An Introduction to Regional Planning
7. Misra R.P.Sundaram K.V &V.L.S.Prakasa Rao(1974) : Regional Development Planning In India.
8. Misra R.P. (1992) : Regional planning,Concept Publishing company. New Delhi.
9. M. Chand & V. Puri(1983) : Regional Planning in India, Allied publishers Ltd., New Delhi
10. Sundaram, K. V. (1985) : Geography and Planning", Concept Pub. Company, New Delhi

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PRACTICAL

Units	Topic	Teaching Hours
I	Meaning: Elements of Weather and Climate, Brief review of Indian Meteorological Department (IMD) and its functions.	05
II	Meteorological Instruments: Drawing of meteorological instruments- Thermometer, Barometer, hygrometer, Anemometer, Wind-vane, Rain gauge station & its functions and significance.	05
III	IMD Weather Maps: Drawing of Weather symbols, Season and seasonal variations, Isobars, Isobaric Pattern, Depression, Cyclone, Calm Conditions, Forecasting etc. and its Characteristics (Illustration is necessary)	10
IV	Season-wise detail Interpretation of IMD Weather Maps: a. Winter Season (at least two map from each season) b. Summer Season (at least two map from each season) c. Monsoon Season (at least two map from each season) d. Post-Monsoon Season (at least two map from each season)	15
	Total	**35 hrs.**

Reference:

1. R. L. Singh: Elements of Practical Geography.
2. Gopal Singh: Practical Geography.
3. Dr. Ranganat: Practical Geography (Kannada Version).
4. Singh and Kanoj: Practical Geography.
5. R. P. Misra and Ramesh: Fundamental of Cartography.
6. M. F. Karennavar & S. S. Nanjannavar: Practical Geography.
7. M .F. Karennavar & S. S. Nanjannavar: Practical Geography (KannadaVersion).
8. Pijushkanti Saha & Partha Basu: Advanced Practical Geography

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PRACTICAL

Units	Topic	Teaching Hours
I	Preliminary Discussion and selection of the topic. Preparation of Questionnaire.	05
II	Data collection, Tabulation, and	10
III	Methodology.	05
IV	Final report writing.	15
V	Viva-Voce	
	Total	35 hours

Note: In the VI semester, there will be compulsory practical paper i.e. ***FieldWork/ Project/ Dissertation*** and concerned teacher has to select study Area Village/Block/Taluka/City level) for the preparation of final dissertation report in consultation and approval with the concerned HOD/ Principal of the institution.

*The field work/project/ dissertation carries **40 marks**, of which **15 marks** are allotted to preparation of the dissertation and **25 marks** are kept for **viva-voce** of the candidates.*

Method of Examining the Candidate in the Geography Practical Examination

Allotment of Marks

For example

Candidate	Viva -Voce Marks						Total (out of 40 marks)
	Selection of the topic (Maximum **02** Marks)	**Aims and Objectives** (Maximum **03** Marks)	**Data Collection** (Maximum **05** Marks)	**Method used in Study** (Maximum **05** Marks)	**Information and Data Presentation** (Maximum **05** Marks)	**Preparation & Submission of Report** (Maximum **15** Marks)	
X	**02**	**02**	**03**	**00**	**04**	**10**	**22**
Y	01	01	02	01	**02**	**06**	**13 fail**
Z	02	03	03	04	**03**	**12**	**27**

Note: *Examiner has to fix marks for the dissertation report max. **15 marks** at the time of examination on the bases of quality of the work and **25 marks** are allotted to viva-voce of the candidates as above.*

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Units	Topic	Teaching Hours
I	India : Location and Extent, Physiography, Drainage, Climate, Soil and Natural Vegetation and its characteristics and classification	15
II	Agriculture: Significance and types of Agriculture. Major agriculture crops : food crops, pulses, commercial crops, plantation crops, horticultural crops and their method of cultivation with reference to rice, wheat, sugarcane, cotton, tea, coffee and coconut.	08
III	Classification of mineral and power resources, distribution of Iron ore, Coal, Petroleum, Hydel Power, Thermal power and solar energy and their uses. Energy crisis in India.	05
IV	Industries: Industrial regions of India. Distribution of Iron and Steel, Cotton textile, Sugar Industry, automobile industry in India.	06
V	Population: Growth and Distribution of Population, Density of Population and Causes and Consequences	06
	Total	40 hours

Reference:

1. Ranjit Thirtha- Geography of India
2. Sharma & Coutinho- Economic and Commercial Geography of India
3. Tiwari.P.S- Geography of India
4. C.B.Mamoria - Economic and Commercial Geography of India
5. Ranganath - Regional and Economic Geography of India (Kannada)
6. Mallappa. P- Regional Geography of India (Kannada)
7.S.S.Nanjannavar- Geography of India.

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RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

(DSC,DSE & SEC)

HINDI

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

Courses

DSC : Discipline Specific Course

DSE : Discipline Specific Elective

COURSE PATTERNS, SCHEME OF EXAMINATION AND CREDITS

Sem	Course	Title of the Paper	Paper	Teaching Hours per week	Duration of Exam (Hrs)	Marks IA	Exam	Total	Credits
I	DSC	कहानी संकलन तथा अन्य	1T*	5	3	20	80	100	3
II	DSC	कविता संकलन तथा अन्य	1T*	5	3	20	80	100	3
III	DSC	गद्य संकलन तथा अन्य	1T*	5	3	20	80	100	3
IV	DSC	एकांकी संकलन तथा अन्य	1T*	5	3	20	80	100	3

Sem	Course	Title of the Paper	Paper	Teaching Hours per week	Duration of Exam (Hrs)	Marks IA	Exam	Total	Credits
V	DSE 1	१. मध्यकालीन हिन्दी काव्य संकलन २. नाट्य काव्य	1T*	4	3	20	80	100	4
	DSE 2A **OR** DSE 2B	१. हिन्दी साहित्य का इतिहास (आधुनिक काल) २. कार्यालयी पत्राचार **OR** १. साहित्य शास्त्र २. छंद ३. अलंकार	1T*	4	3	20	80	100	4
VI	DSE 1	१. उपन्यास २. नाटक	1T*	4	3	20	80	100	4
	DSE 2A **OR** DSE 2B	१. जनसंचार माध्यम और हिंदी २. सोशल मीडिया **OR** १. भाषा विज्ञान २. हिंदी भाषा का उद्‌भव तथा विकास	1T*	4	3	20	80	100	4

T*-Theory

Theory Exam Question Paper Pattern and Distribution of Marks

DSC

Q-1 One Mark Questions (10 out of 12) : 10x1=10 Marks

Q-2 Annotations from Text book (2 out of 4) : 2x7=14 Marks

Q-3 Essay Type Question on Text Book (1out of 2) : 1x14=14 Marks

Q-4 Short Notes on Text Book (2 out of 4) : 2x7=14 Marks

Q-5 Non detail : 28 Marks

DSE 1

Q-1 One Mark Questions (10 out of 12) : 10x1=10 Marks

Q-2 Annotations from Text books (4 out of 8) : 4x5=20 Marks

Q-3 Essay Type Questions on Text Book (2 out of 4) : 2x15=30 Marks

Q-4 Short Notes on Text Books (4 out of 8) : 4x5=20 Marks

DSE 2 A & B

Q-1 One Mark Questions (10 out of 12) : 10x1=10 Marks

Q-2 Questions on Part I (40 Marks)

Q-3 Questions on Part II (30 Marks)

DSC Semester I (2020-21 and onwards) : Title of the Paper- कहानी संकलन तथा अन्य

Presribed Text : कहानी कुंज (कहानी संकलन)

राधाकृष्ण प्रकाशन प्रा. लि., 7/31, अन्सारी रोड, दरियागंज, नई दिल्ली- 110002

Other (अन्य) १) अनुवाद (पारिभाषिक शब्दावली तथा अनुच्छेद)

२) निबंध लेखन

DSC Semester II : Title of the Paper- कविता संकलन तथा अन्य

Presribed Text : पद्य परिमल (कविता संकलन)

ज्ञानविज्ञान प्रकाशन, 1-बी, नेताजी सुभाष मार्ग, दरियागंज, नई दिल्ली-110002

Other (अन्य) १) हिन्दी साहित्य का इतिहास :

कालविभाजन एवं नामकरण, आदिकालीन साहित्य की विशेषताएँ, चंदबरदाई, अमीर खुसरो, विद्यापति का परिचय

२) व्याकरण : शब्द तथा वाक्य में कालपरिवर्तन, लिंग परिवर्तन, वचन परिवर्तन का अभ्यास

Recommended Reading

१) हिंदी साहित्य का सुबोध इतिहास : बाबू गुलाबराय
२) हिंदी साहित्य का सरल इतिहास : विश्वनाथ त्रिपाठी
ओरियंट ब्लॅक स्वान प्रा. लि., नई दिल्ली
३) हिंदी के प्राचीन और आधुनिक कवि : डॉ. सत्येंद्र कुमार सिंह
हिंदी साहित्य भांडार, ५५, चौपटियां रोड, लखनऊ-३

DSC Semester III (2021-22 and onwards) Title of the Paper- गद्य संकलन तथा अन्य

Presribed Text : गद्य धारा (गद्य संकलन)

भूमिका प्रकाशन, G-17, जगतपुरी, दिल्ली-110051

Other (अन्य) १) हिन्दी साहित्य का इतिहास- भक्तिकाल

भक्तिकाल की विशेषताएँ, संतकाव्य तथा सूफी काव्य. कवि कबीरदास, सूरदास, तुलसीदास, जायसी, मीराबाई और रसखान का परिचय

२) भाववाचक संज्ञा (संज्ञा से, क्रिया से, विशेषण से, सर्वनाम से)

Recommended Reading

१) हिंदी साहित्य का सुबोध इतिहास : बाबू गुलाबराय
२) हिंदी साहित्य का सरल इतिहास : विश्वनाथ त्रिपाठी
ओरियंट ब्लॅक स्वान प्रा. लि., नई दिल्ली
३) हिंदी के प्राचीन और आधुनिक कवि : डॉ. सत्येंद्र कुमार सिंह
हिंदी साहित्य भांडार, ५५, चौपटियां रोड, लखनऊ-३

DSC Semester IV Title of the Paper- एकांकी संकलन तथा अन्य

Presribed Text : एकांकी कलश (एकांकी संग्रह)

ईशान प्रकाशन, 7-23, अन्सारी रोड, दरियागंज, नई दिल्ली- 110002

Other (अन्य) १) हिन्दी साहित्य का इतिहास-रीतिकाल

रीतिकाल की प्रवृत्तियाँ तथा रीतिमुक्त काव्य, कवि केशवदास, बिहारी, भूषण और घनानन्द का परिचय

२) अकर्मक क्रिया तथा सकर्मक क्रिया (सामान्य परिचय)

Recommended Reading

१) हिंदी साहित्य का सुबोध इतिहास : बाबू गुलाबराय
२) हिंदी साहित्य का सरल इतिहास : विश्वनाथ त्रिपाठी, ओरियंट ब्लॅक स्वान प्रा. लि., नई दिल्ली
३) हिंदी के प्राचीन और आधुनिक कवि : डॉ. सत्येंद्र कुमार सिंह,हिंदी साहित्य भांडार, ५५, चौपटियां रोड, लखनऊ-३

Semester V (2022-23 and onwards)

DSE 1 : Title of the Paper- मध्यकालीन हिंदी काव्य संकलन तथा नाट्यकाव्य

Presribed Text : १) मध्यकालीन हिन्दी काव्यसंकलन

सुमित्र प्रकाशन, फ्लॅट **204**, लीला अपार्टमेंट, हेस्टिंग रोड, अशोकनगर, प्रयागराज–**211001**

Presribed Text : २) गाथा कुरुक्षेत्र की (नाट्यकाव्य) : मनोहर श्याम जोशी

वाणी प्रकाशन, 4695, 21 ए, दरियागंज, नई दिल्ली–110002

DSE 2A : Title of the Paper- हिंदी साहित्य का इतिहास (आधुनिक काल) तथा कार्यालयी पत्राचार

१) हिंदी साहित्य का इतिहास (आधुनिक काल)

गद्य साहित्य का उद्भव और विकास (उपन्यास, कहानी, नाटक, निबंध, आत्मकथा साहित्य का अध्ययन)

आधुनिक हिंदी कविता का विकास (छायावाद, प्रगतिवाद, प्रयोगवाद, नई कविता, समकालीन कविता का अध्ययन)

२) कार्यालयी पत्राचार

सरकारी पत्र, अर्ध्द सरकारी पत्र, कार्यालय आदेश, परिपत्र, अनुस्मारक, कार्यालय ज्ञापन, सूचना

Recommended Reading

१) हिंदी साहित्य का सुबोध इतिहास : बाबू गुलाब राय

२) हिंदी साहित्य का सरल इतिहास : विश्वनाथ त्रिपाठी
ओरियंट ब्लॅक स्वान प्रा. लि., नई दिल्ली

३) हिंदी का गद्य साहित्य : डॉ. रामचंद्र तिवारी
विश्वविद्यालय प्रकाशन, वाराणसी

-OR-

DSE 2B : Title of the Paper- साहित्य शास्त्र, छंद तथा अलंकार

१) साहित्य शास्त्र

साहित्य की परिभाषा, तत्व तथा प्रकार

महाकाव्य तथा खण्डकाव्य का सामान्य परिचय

नाटक, उपन्यास, कहानी, निबंध तथा आलोचना (परिभाषा, तत्त्व, प्रकार)

रेखाचित्र, संस्मरण, जीवनी, आत्मकथा का सामान्य परिचय

२) छंद

मात्रिक– दोहा, सोरठा, चौपाई, हरिगीतिका

वर्णिक – उपेन्द्रवज्रा, मालिनी, शिखरिणी, वसन्ततिलका

३)अलंकार

शब्दालंकार – अनुप्रास, यमक, वक्रोक्ति, श्लेष

अर्थालंकार – उपमा, रुपक, अतिशयोक्ति, दृष्टांत

Recommended Reading

काव्यशास्त्र : डॉ. भगीरथ मिश्र

विश्वविद्यालय प्रकाशन, वाराणसी–221001

Semester VI

DSE 1 Title of the Paper- उपन्यास तथा नाटक

Presribed Text : १) सूरज का सातवाँ घोडा (उपन्यास) : धर्मवीर भारती
भारतीय ज्ञानपीठ, १८, इंस्टीट्यूशनल एरिया, लोदी रोड, नई दिल्ली–110003

Presribed Text : २) जी जैसी आपकी मर्जी (नाटक**) : नादिरा बब्बर**
वाणी प्रकाशन, 4695, 24–ए, दरियागंज, नई दिल्ली 110002

DSE 2A : Title of the Paper- जनसंचार माध्यम और हिंदी तथा सोशल मीडिया

१) जनसंचार माध्यम और हिन्दी
जनसंचार माध्यम की परिभाषा और महत्त्व
आधुनिक जनसंचार माध्यम–समाचार पत्र और पत्रिकाएँ, रेडियो, दूरदर्शन, सिनेमा और इंटरनेट

२) सोशल मीडिया
सोशल मीडिया का स्वरुप, प्रकार और विकास
फेसबुक, व्हॉट्सअप, ट्विटर, इन्स्टाग्राम मे हिंदी
ब्लॉगिंग और हिंदी
सोशल मीडिया में हिंदी का प्रसार और प्रयोग

Recommended Reading

१. आधुनिक जनसंचार और हिंदी : हरिमोहन,
२. हिंदी वेब साहित्य : डॉ. सुनीलकुमार लवटे
३. पत्रकारिता से मीडिया तक – मनोज कुमार
४. सोशल मीडिया : योगेश पटेल,
५. सोशल नेटवर्किंग : नए समय का संवाद : संपादक संजय द्विवेदी,
६. उत्तर आधुनिक मीडिया तकनीक : हर्षदेव

-OR-

DSE 2B : Title of the Paper- भाषा विज्ञान तथा हिंदी भाषा का उद्‌भव और विकास

१) भाषाविज्ञान
भाषाविज्ञान की परिभाषा और उपयोगिता
प्रमुख शाखाएँ : वाक्यविज्ञान, रुपविज्ञान, शब्दविज्ञान, ध्वनिविज्ञान तथा अर्थविज्ञान

२) हिंदी भाषा का उद्‌भव और विकास
हिंदी भाषा का उद्‌भव तथा विकास
हिंदी की प्रमुख बोलियाँ – ब्रज, अवधी, भोजपुरी, खडी बोली
हिंदी, हिंदुस्तानी, उर्दू तथा दक्खिनी का सामान्य परिचय
हिंदी शब्दभंडार

Recommended Reading

भाषा विज्ञान : भोलानाथ तिवारी, किताब महल, इलाहाबाद

Course

SEC : Skill Enhancement Course

2021-22 & 2022-23 onwards

COURSE PATTERNS, SCHEME OF EXAMINATION AND CREDITS

Sem	Course	Title of the Paper	Paper	Teaching Hours per week	Duration of Exam (Hrs)	Marks IA	Exam	Total	Credits
III	SEC	संभाषण कला	1T*	2	2	10	40	50	2
IV	SEC	चलचित्र लेखन	1T*	2	2	10	40	50	2
V	SEC	समाचार संकलन और लेखन	1T*	2	2	10	40	50	2
VI	SEC	अनुवाद विज्ञान	1T*	2	2	10	40	50	2

T*-Theory

Theory Exam Question Paper Pattern and Distribution of Marks (40 Marks)

One Mark Questions 10 out of 12 (10x1=10 Marks)

3 Questions carrying 10 marks each (3x10=30 Marks)

SEC Semester III (2021-22 and onwards)

Title of the Paper : संभाषण कला

संभाषण का अर्थ, संभाषण के विविध रुप : वार्तालाप, व्याख्यान, वाद–विवाद, जनसंबोधन

संभाषण कला के प्रमुख उपादान– यथेष्ट भाषा ज्ञान, मानक उच्चारण, सटीक प्रस्तुती, अन्तराल ध्वनि (वॉल्यूम), लहजा (ॲक्सेंट)

संभाषण कला के अन्य रुप– उद्घोषणा कला (अनाउन्समेंट), आँखों देखा हाल (कमेंट्री) संचालन (अँकरिंग), समाचार वाचन (रेडीयो, टी.व्ही.) मंचीय वाचन (कविता, कहानी आदि)

Recommended Reading

भाषण कला : डॉ. महेश शर्मा, ज्ञान गंगा, दिल्ली

SEC Semester IV

Title of the Paper : चलचित्र लेखन

हिंदी सिनेमा का विकास

बॉलीवूड का हिन्दी फिल्म उद्योग

हिंदी की विश्व व्याप्ति में फिल्मों की भूमिका

सिनेमा समीक्षा – एम. एस. धोनी : द अनटोल्ट स्टोरी, अ वेंसडे, आर्टिकल–१५, स्वदेस, दंगल

Recommended Reading

१) हिंदी सिनेमा का इतिहास : मनमोहन चड्ढा

२) सिनेमा–कल आज और कल : विनोद भारद्वाज

SEC Semester V (2022-23 and onwards)

Title of the Paper : समाचार संकलन और लेखन

समाचार : अर्थ, परिभाषा एवं स्रोत

संवाददाता के गुण

रिपोर्टिंग के क्षेत्र और प्रकार

पारिभाषिक शब्दावली

Recommended Reading

१) प्रिंट मिडिया : रुपचन्द गौतम (श्री नटराज प्रकाशन, दिल्ली–110053)

२) पत्रकारिता की विभिन्न विधाएँ : डॉ. निशांत सिंह (राधा पब्लिकेशन्स, नई दिल्ली–110002)

३) पत्रकारी लेखन के आयाम : मनोहर प्रभाकर, पंचशील प्रकाशन, जयपुर

SEC Semester VI

Title of the Paper : अनुवाद विज्ञान

अनुवाद का स्वरुप, प्रकार तथा अनुवाद व्यवहार (अंग्रेजी से हिंदी)

Recommended Reading

१. अनुवाद विज्ञान : भोलानाथ तिवारी
(शब्दकार प्रकाशन, १५९, गुरु अंगदनगर (वेस्ट) दिल्ली : 110092

२. अनुवाद की व्यावहारिक समस्याएँ : भोलानाथ तिवारी, ओमप्रकाश गाबा
(शब्दकार प्रकाशन, १५९, गुरु अंगदनगर (वेस्ट) दिल्ली : 110092

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

HISTORY & ARCHAEOLOGY

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

UG CBCS SYLLABUS IMPLEMENTATION

Sl. No	Course	Academic Year of Implementation
1	FIRST SEMESTER	2020-2021 and onwards
2	SECOND SEMESTER	
3	THIRD SEMESTER	2021-2022 and onwards
4	FOURTH SEMESTER	
5	FIFTH SEMESTER	2022-2023 and onwards
6	SIXTH SEMESTER	

Department of History & Archaeology Patterns Schemes of Examination and Credits for B.A Programme

Semester	Code/ course	Paper No	Paper	Teaching Hrs/Week	Duration of Exams Hrs	Exams		Total	Credit Values
						I A	Exam		
I	DSC 1	1	History of India (Early Times to Kushanas)	05	03	20	80	100	03
II	DSC 2	2	History of India (From Gupta to 1206 AD.)	05	03	20	80	100	03
III	DSC 3	3	History of India –1206 – 1526 A.D.	05	03	20	80	100	03
	SEC 1	4	Architecture of karnataka	02	02	10	40	50	02
IV	DSC 4	5	History of India- 1526 -1707 A.D.	05	03	20	80	100	03
	SEC 2	6	Museum Exhibition skills Development	02	02	10	40	50	02
V	DSE 1	7	1)History of India - British Rule -1707- 1947 A. D. - Paper I Compulsory	04	04	20	80	100	04
		7.1	2) History and Culture of Karnataka (From Early to 1336 A.D.) OR 3)History of Modern Europe (1450 -1914 A.D.) OR 4) History of Tourism and Heritage	04	04	20	80	100	04
	SEC 3	8	Information Technology in Tourism	02	02	10	40	50	02
VI	DSE 2	9	1)History of Modern India- Paper I Compulsory	04	03	20	80	100	04
		9.1	2) History of Modern Karnataka 1336- 1956 A.D OR 3)History of Modern Europe (1914-1990 A.D.) OR 4) History of Modern Tourism	04	03	20	80	100	04
	SEC 4	10	Guiding Skill & Personality Development	2	2	10	40	50	2
				44	36				36

RANI CHANNAMMA UNIVERSITY, BELAGAVI
HISTORY and ARCHAEOLOGY
B. A – I Semester
History of India (From Early Times to Kushanas)

Teaching Hours: 5 hrs per week 16x5 = 80hrs

Unit-I Reconstructing Early Indian History

A) Geographical Features of India and Its Impact on History.
B) Sources of Information: Archaeological and Literary Sources.
C) Important Sites of Pre and Proto History :
Pre-Historic sites: Bhimbetak, Sangankallu, Kibbanhalli, Renugunta and Tinnvelly.
Proto-Historic sites: Aihole, Pattadakal, Ajanta, Mahabalipuram, Boudh Gaya.

Unit-II Stone Ages

A) Palaeolithic Age –Main Features and Important Sites.
B) Neolithic Age –Main Features and Important Sites.
C) Megalithic Age-Main Features and Distribution of South Indian Burials.

Unit-III Civilization and Culture of Ancient India

A) The Harappan Civilization Discovery and Main Features, Recent Excavation and Decline.
B) The Aryan Culture: Early Vedic and Later Vedic Period: Its Society, Polity, Economy, Religion and Literature.
C) New Religion-Jainism and Buddhism: Mahaveer and Goutam Buddha - Life, Teachings, Spread, Growth, Contributions and Decline.

Unit-IV Greek Invasion and Kingdoms of Northern India.

A) Alexander's Invasions: Causes, Course and Impacts.
B) The Mouryan Empire: Origin and Foundation of Chandragupta Mourya, Ashoka and His Early Life, Dhamma, Spread of Buddhism, Inscriptions, Administration and Growth of Mouryan Art and Architecture.
C) The Kushana's: Kanishka and Kushana's Contributions.

Unit V Map Topics

1. The extent of Harappan Civilization with important sites.
2. The location of Ashokan Inscriptions

Reference Books:

1 Thapar Romila : *History of India Vol-I,* Penguin Books India Pvt.Ltd., New Delhi, 2000.

2 Majumdar R.C. : *Ancient India,*MotilalBanarsidas Delhi, Reprint, 2017

3. Lunia B.N. : *Evolution of Indian Culture,* Lakshmi Narayan Agarwal, Agra, 1960.

4. Jha D. N. : *Ancient India- An Introductory,*Rawat Publishers, Jaipur, 1977.

5. Khurana K.L : *Ancient India,* Lakshmi Narayan Agarwal, Agra, 2011.

6. Das S.K. : *The Economic History of Ancient India,* Vohra Publishers, Allahabad, 2007.

7. Sharma R.S. : *Indian Feudalism,*Laxmi Publications, New Delhi, 2008.

8. Sharma R.S. : *Material Culture and Social Formations in Ancient India,* Macmillan India Ltd, Delhi, 2007.

9. Sharma L.P. : *History of Ancient India,*Konark Publishers Pvt.Ltd, Dehli, 2008.

10. Sharma R.S. : *India's Ancient Past,* Oxford University Press, New Delhi, 31st Impression 2018.

11. Bashyam A.L. : *The Wonder that was India, Vol-I,* Picador Pan Macmillan Publisher Ltd, London, 2004.

12. Bridget & Raymond Allchin :*The Rise of Civilization in India and Pakistan,* Cambridge University Press, Foundation Books Dehli, First South Asia Edition 2011.

RANI CHANNAMMA UNIVERSITY, BELAGAVI

HISTORY and ARCHAEOLOGY

B.A- II Semester

History of India (From Gupta Period To 1206 AD)

Teaching Hours: 5 hrs per week 16x5 = 80hrs

Unit-I Reconstruction of Ancient Indian History.

A) Sources- Archaeological and Literary Sources

B) The Gupta's Empire: Samudragupta and Golden Age of Gupta's - Literature, Religion, Economy, Science-Technology and Art and Architecture.

c) Vardhan Dynasty : Harshavardhana- Conquests, Buddhism and Education

Unit-II Empires in Deccan.

A) Early Chalukya's of Badami : Early Rules, Pulakeshi-II and their Cultural Contributions Special Reference to Art and Architecture.

B) Rastrakuta's of Malakheda- Dhruva, Govinda-III and Amoghavarsha Nrapatunga.

C) Cultural Contributions of Rastrakutas: Administration, Religion, Literature, Education and Art and Architecture.

Unit -III Tamil Kingdoms in South India.

A) The Pallava's :Mahendravarma-I, Narasimhavarm-I.

B)The Chola's:Rajraj Chola-I, RajendraChola-I and Local Self Government of Chola's

C) Growth of Dravidian Architecture with Special Reference to Pallava's and Chola's Period.

Unit-IV Muslim Invasion and Indian Philosophy.

A) Arabs and Afghan Invasions: Mahammad Bin Kashim, Mahammad Ghazni and Mahammad Ghor – Invasion on India and its Impacts.

B) Indian Philosophy: Advaita, Dwaita, Vishistadwaita

C) Veerashaiva :Basaveshwar and Vachana Literature.

Unit-V Map Topics

1. The Gupta Empire under Samudragupta,
2. The Chalukya's Empire under Pulakeshi-II.
3. **Places of historical importance –**

1.Taxila 2. Pataliputra 3.Nalanda 4. Kanuoj 5. Ellora 6.Badami 7.Pattadakal 8. Kanchi 9.Tanjore 10.Sourastra

Reference Books:

1 ThaparRomila : *History of India Vol-I,* Penguin Books India Pvt.Ltd, New Delhi, 2000.

2 Majumdar R.C. : *Ancient India,*MotilalBanarsidas Delhi, Reprint, 2017

3. Lunia B.N. : *Evolution of Indian Culture,* Lakshmi Narayan Agarwal, Agra, 1960.

4.Jha D. N. : *Ancient India- An Introductory,*Rawat Publishers, Jaipur,1977.

5. Khurana K.L : *Ancient India,* Lakshmi Narayan Agarwal, Agra, 2011.

6. Das S.K. : *The Economic History of Ancient India,* Vohra Publishers, Allahabad, 2007.

7. Sharma R.S. : *Indian Feudalism,*Laxmi Publications, New Delhi, 2008.

8. Sharma R.S. : *Material Culture and Social Formations in Ancient India.* Macmillan India Ltd, Delhi, 2007.

9. Sharma L.P. : *History of Ancient India,*Konark Publishers Pvt.Ltd, Dehli, 2008.

10. Sharma R.S. : *India's Ancient Past,* Oxford University Press, New Delhi, 31st Impression 2018.

11. Bashyam A.L. : *The Wonder that was India, Vol-I,* Picador Pan Macmillan Publisher Ltd. London, 2004.

12 NilkantaSastri K.A. :*The Illustrated History of South India,* Oxford University Press New Delhi, 2009

13. Bridget & Raymond Allchin :*The Rise of Civilization in India and Pakistan,* Cambridge University Press, Foundation Books Delhi, First South Asia Edition 2011.

RANI CHANNAMMA UNIVERSITY, BELAGAVI

HISTORY and ARCHAEOLOGY

B.A- III Semester

History of India (From 1206 To 1526 AD)

Teaching Hours: 5 hrs per week 16x5 = 80hrs

Unit-I Sultanate of Delhi

A) Sources: Literary and Archaeological Sources

B) The Slave Dynasty : Qutabuddin Aibak, Iltuthmish, Raziya and Balban

C) The Khilji and Tughalaq Dynasty's: Allauddin khilji- His Conquests and Reforms. Mahammad-Bin-Tughalaq and Firoz Shah Tughalaq their Reforms.

Unit-II Cultural Contributions of Delhi Sultanate

A) Administration and Socio-Economic Life

B) Education and Literary System

C) Indo-Islamic Art and Architecture

Unit-III The Vijayanagar and Bahumani Kingdoms

A) The Vijayanagar Empire: Devaroy II–Krishnadevaroy and Their Contribution - The Battle of Talikot and Its Effects

B) Contributions of Vijayanagar – Administration, Religion, Literature, Socio-Economic and Art and Architecture.

C) The Bahumani Kingdoms: Mahammad Gawan: His Administration and Art and Architecture.

Unit-IV The Adilshahi's Kingdom and Bhakti Movement.

A)Adilshahi's of Bijapur :Mahamad AdilShahi, Ibrahim Adilshahi-II, Contribution to Literature and Art and Architecture.

B) Bhakti Cult: Kabir, Gurunanak, Meerabhai.

C) Sufi Saints: Moyinuddin Chisti, Nizamuddin Aulliya and Bandenawaz

Unit-V Map Topics

A) The Khilji empire under Alla-Ud-Din-Khilji

B) The Vijayanagar Empire under Krishnadevaroy

C) Places of Historical Importance-1.Delhi 2.Agra 3.Lahore 4.Ranathambor 5.Chittor 6.Doulatabad 7. Hampi 8. Bijapur 9. Bidar 10. Gulbarga .

Reference Books:

1 Habib Irfan (Ed) : *Medieval India, (1200-1750)* Oxford University Press, New Delhi, 1998.

2 Chandara Satish : *Medieval India from Sultanate to Mughals,*HarAnand Publications, Delhi, 2007.

3. Mehta J.L. : *Advance Study in the History of Medieval India, Vol- 1(1000-1526),* Sterling Publishers Pvt. Ltd, New Delhi, 2009.

4.Habib Mohammad : *A Comprehensive History of India - The DehliSultanat Vol-V,* People's Publishing House, Delhi.1992

5. Khurana K.L : *Medieval India,* Lakshmi Narayan Agarwal, Agra, 2009.

6. Chandara Satish: *History of Medieval India,* Orient Black Swan Pvt.Ltd. Hydrabad, 2007.

7. Hassan Nurul S : *Religion, State and Society in Medieval India,* Oxford University Press, New Delhi, 2008.

8. Chandara Satish : *Essays on Medieval Indian History,* Oxford University Press, New Delhi, 2003.

9. Sharma L.P. : *History of Medieval India 1000-1740,* Konark Publishers Pvt.Ltd, Delhi, 1996.

10. Sharma R.S. : *India's Ancient Past.* Oxford University Press, New Delhi, 31st Impression 2018.

11. Bashyam A.L. : *The Wonder that was India, Vol-I,* Picador Pan Macmillan Publisher Ltd., London, 2004.

12. Nazim Khalil Ahmed :*Religion and Politics in India during the Thirteenth Century,* Oxford University Press, New Dehli, 2002.

13. Mahajan V.D. :*History of Medieval India Saltanate Period and Mughal Period,* S. Chand & Company Ltd., New Dehli, 2012.

Department of History and Archaeology

SEC I . B.A – III Semester

Architecture of Karnataka

Teaching Hours : 2hrs per week 16 X 2= 3

Unit – I – Buddhist Architecture

a) General types of Buddhist Architecture-Stupas, Chaityas, Viharas
b) Ashokan period Buddhist Architecture in Karnataka
c) Shatavahana and Later period Buddhist Architecture in Karnataka

Unit – II- Hindu Architecture

a) Origin of Hindu Temples Styles –Nagara,Dravida,Vesara
b) Chalukyan and Rashtrakutas period Architecture and Sculptures
c) Hoysala Temple Architecture and Vijayanagar Monuments

Unit – III- Islamic Architecture

a) Origin of Islamic Architecture
b) Bahamani Architecture
c) Adilshahi Architecture

Reference Books:

1. Percy Brown : Indian Architecture (Buddhist and Hindu Period), Bombay-1971
2. Percy Brown : Indian Architecture (Islamic Period), Bombay- 1971
3. Srinivasan K.R: South Indian Temples ,New Delhi-1971
4. Dr. Rajashekara: Karnataka Architecture ,Dharavada-1985
5. Tippeswami P.R: Shilpakala Prapancha,bangaloore-1994

RANI CHANNAMMA UNIVERSITY, BELAGAVI

HISTORY and ARCHAEOLOGY

B.A- IV Semester

History of India (From 1526 To 1707 AD)

Teaching Hours: 5 hrs per week 16x5 = 80hrs

Unit-I Mughal Rule In India

A) Sources: Archaeological and Literary Sources

B) Foundation of Mughal Empire–Babar and Humayun:Their Achievements

C) The Rise of Afghans : Shershah Sur early career and administrative reforms.

Unit-II Mughal Imperial Period

A) Akbar: His Conquests, Rajput and Religious Policy

B) Jahangir and Shahajahan- Golden Age, Nurjahan

C) Aurangzeb's Deccan, Religion Policies and Decline of Mughal Empire

Unit-III Cultural Contributions of Mughal

A) Contributions of Administration, Art and Architecture and Paintings

B) Social Conditions: Women's Position, Education, Literature and Music

C) Economic Condition: Agriculture, Trade and Commerce, Irrigation, and Urbanization

Unit-IV Maratha Empire

A) Chatrapati Shivaji: His life and military achievements

B) Contribution of Shivaji's Administrative system

C) South Indian Dasa Movements :Kanakadas, Purandardas, Vyasaroy

Unit-V Map Topics

A)The Mughal empire under Akbar.

B) The Martha empire under Shivaji

C) Places of Historical Importance –

1. Shahjahanbad [Delhi] 2. Kabul 3. Fathepur Sikri 4. Agra 5.Shrinagar 6. Lahore 7. Aurangabad 8. Shivanerukote 9. Rayagad 10.Kaginele

Reference Books:

1 Habib Irfan : *Medieval India (1200-1750),* Oxford University Press, New Delhi, 1998.

2 Chandara Satish : *Medieval India from Sultanate to Mughals,*HarAnand Publications, Delhi, 2007.

3. Mehta J.L. : *Advance Study in the History of Medieval India- Mughal Empire (1526-1707) Vol- 2,* Sterling Publishers Pvt. Ltd. New Delhi.2009.

4.Athar Ali M. : *The Mughal Nobility under Aurangzeb,* People's Publishing House, Delhi,1992.

5. Khurana K.L : *Medieval India,* Lakshmi Narayan Agarwal, Agra, 2009.

6. Chandara Satish : *History of Medieval India,* Orient Black Swan Pvt. Ltd., Hydrabad, 2007.

7. Hassan Nurul S : *Religion, State and Society in Medieval India,* Oxford University Press, New Delhi, 2008.

8. Chandara Satish : *Essays on Medieval Indian History,* Oxford University Press, New Delhi, 2003.

9. Sharma L.P. : *History of Medieval India 1000-1740,*Konark Publishers Pvt. Ltd., Dehli,1996.

10. Sharma R.S. : *The Mughal Empire in India,* Lakshmi Narayan Agarwal, Agra, 2009.

11. Bashyam A.L. : *The Wonder that was India, Vol-I,* Picador Pan Macmillan Publisher Ltd., London, 2004.

12. Sharma R.S. : *The Crescent in India,* Lakshmi Narayan Agarwal, Agra, 2009.

13. Habib Irfan : *Akbar and His Time,* Oxford University Press, New Dehli, 2013.

14. Sarkar J. N. : *A Short History of Aurangzeb,* Orient Black Swan Pvt.Ltd., New Delhi, 2009.

15. Sarkar J. N. : *The Fall of the Mughal Empire, Volumes I-IV,* Orient Black Swan Pvt.Ltd., New Dehli, 2007.

16. Sarkar J.N. : *Shivaji and His Times*, Orient Black Swan Pvt.Ltd., New Dehli, 2010.

17. Qureshi IshtiaqHussain :*Administration of the Mughal Empire,* Low Price Publications, Dehli, 2004.

18. Desai Ranjeet : *Shivaji: The Great Maratha,* Harper Perennial, Delhi, 2017.

19. Richard John F : *The Mughal Empire,* Cambridge University Press, Delhi, 2016.

20. Mahajan V.D. :*History of Medieval India Saltanate period and Mughal period,* S. Chand & Company Ltd., New Dehli, 2012.

21. Smith V. A. : Akbar the Great Mughal, Create space Independent Publishers, 2015.

Department of History and Archaeology

SEC II . B.A – IV Semester

Museum Exhibition Skills Development

Teaching Hours: 2hrs per week 16 X 2= 32

Unit –I Museum Exhibition

a) Purpose and Ethics of Exhibition
b) Types of Exhibition
c) Case study of different Types of Exhibition

Unit –II Exhibition Planning's

a) Concept of development
b) Exhibition Design
c) Evaluation of Exhibition

Unit –III Museum Exhibition Skills

a) Ancillary exhibition
b) Techniques – Model Making
c) Photography, videography, etc.

Reference Books:

1. Dernie David : Exhibition Design , Newyork-2006
2. Michael Belcher : Exhibition in Museum, Washington (DC) -1991
3. T. Ambrose & C : Museum Basics , Routledge – 2012
4. Elizabeth Bogle : Museum Exhibition Planning and Design, Altimira-2013

RANI CHANNAMMA UNIVERSITY, BELAGAVI

HISTORY and ARCHAEOLOGY

B.A- V Semester

COMPULSORY PAPER-I History of India –British Rule 1707 To 1905

Teaching Hours: 4 hrs per week 16x4 = 64hrs

Unit-I Advent of European and Expansion of British Power

A) Advent of Europeans and Anglo-French Conflicts

B) Consolidation of Power: Robert Clive and Warren Hastings-Their Reforms and Foreign Policy

C) Lord Cornwallis Reforms

Unit-II British Power under Governor Generals

A) Lord Wellesley-His Subsidy Alliance

B) William Bentinck : His reforms

C) Lord Dalhousie: Reforms and Doctrine of Lapse

Unit- III New Revenue Systems and Indian Revolts

A) New Revenue Systems: Jamindari ,Raitwari, and Mahalwari.

B) The Great Revolt of 1857: Nature, Causes and Results

C) 1858 Queens Proclamation Act

Unit-IV Reforms of Viceroy's in India

A) Lord Litton: Domestic and Foreign Policy

B) Lord Rippan: Reforms and Foreign Policy

C) Lord Curzon: Reforms and Foreign Policy

Unit-V **Map Topics**

A) Mark the Important Places of Great Revolt 1857

B) Places of Historical Places-

1)Kolkata 2)Madras 3)Bombay4)Calicut 5) Surat6)Pandichery 7) Plassey 8) Baxar 9) Salbha 10) Shrirangpattan

Reference Books:

01. Majumdar R.C. ; *Advanced History of India,* Fourth Edition MacMillan Publication, New Delhi,1978
02. Mahajan V.D.; *History of Modern India* ,S Chand and Company Limited, New Delhi, 2006.
03. Roy M.K.; *Princely States and Paramount Power*, M.K. Books of India, New Delhi,1988
04. Raychaudari S.C.; *Social, Cultural and Economic History of India Modern Times*, Surjeet publications, Delhi, 1976

05. Bipin Chandra .; *Nationalism and Colonialism in Modern India*, Orient Blackswan Private Limited, New Delhi, 1981
06. Grover B.L and AlkaMehata.; *A New Look at on Modern Indian History*, (Revised Edition) S. Chand Publication New Delhi, 2016
07. Percival Spear, *Oxford History of Modern India (1740-1975),* Published by Clarendon Press in Oxford, 1965.
08. Sarkar Sumith.; *Modern India (1985-1947),*Mac Millan Publication, New Delhi,1989.
09. Desai A.R.; *Social Background of IndianNationalism*, SAGE Publication Pvt. Ltd.2016.
10. Hassan Imam ; *Indian National Movement*, Anmol Publication, Delhi, 1999
11. Gopal S.; *British Policy in India (1858 -1905),* Cambridge University Press, 2009
12. Srinivas M.N ;*Social Change in Modern India* , University of California Press,1969.
13. Mishr D.K.; *The Uniform and Division of India*, Lucent Publications,2016.
14. Seel Anil; *The Emergence of Indian Nationalism*, Cambridge University Press, 1971.
15. Tarachand; *Indian National Movement's Volumes* The university of Virginia,2009
16. Sharma L.P.; *Modern India,*Konark Publications Pvt.Ltd., Reprint ,2008.
17. Agarwal R.N.; *Indian National Movement and Constitutional Development*, S Chand and Company, 2005.
18. Khurana K.L.; *History of Modern India*, Ninth Revised Edition, Educational Publisher, Agra, 2009
19. Shivarudrswamy S.N.;*AdhunikBharatdaItihas (Kannada)*, PourasthyaPrakashanTipaturu-Mysore, 2009

RANI CHANNAMMA UNIVERSITY, BELAGAVI

HISTORY and ARCHAEOLOGY

B.A- V Semester OR

OPTIONAL PAPER-II: HISTORY AND CULTURE OF KARNATAKA

(FROM EARLY TO 1336A.D

Teaching Hours: 4 hrs per week 16x4 = 64hrs

Unit - I Sources and Pre-Historic Sites in Karnataka

A. Sources: Archaeological and Literary Sources
B. Geographical of Features of Karnataka
C. Pre and Proto History of Karnataka –Palaeolithic, Neolithic, Megalithic Cultures.

Unit - II The Early Rulers of Karnataka

A. Shatavahanas – Goutamiputra Shatkarni and their Cultural Contributions
B. The Kadambas: Mayur Varma and their Cultural Contributions.
C. The Gangas: Durvinita and their Cultural Contributions.

Unit – III The Deccan Kingdoms of Karnataka

A. The Chalukyas of Badami: Early Rulers and Pulakeshi –II and Cultural Contributions of Chalukyas.
B. Rashtrakutas: Dhruva - Govinda –III- AmoghvarshNrupatunga and their Cultural Contributions.
C. Chalukyas of Kalyana: Vikramaditya- VI and their Cultural Contribution:

Unit- IV The Kalachuris and Minor Dynasties of Karnataka

A. Kalachuris of Kalyana –Bijjaladeva,Basaveshwar, Akkamahadevi.
B. Hoysalas: Vishnuvardhana, Ballala –II and their Cultural Contributions
C. The Kadambas of Hanagal, The Sindhas of Yalaburgi and The Rattas of Savadatti and Their Contributions.

Unit – V Map Topics

A. The Chalukyan Empire under Pulakeshi II.
B. Places of Historical importance -

1.Sannati 2.Sanganakallu 3.Shravanabelagol 4.Vijayapur 5.Talakadu 6.Belur7.Kudalasangama 8 Ihole 9. Badami 10.Manyakheta

Reference Books:

01. Altekar A.S., Rashtrakutas and their times. Oriental Book Agency, Poona, 934,

02. Naik Ramesh and M. Kotresh., ChalukyaLekhanaSamputa, Prasaranga Kannada University. Hampi, 2008.

03. Chopra P.N Ravindran, History of South India (Ancient Medieval and Modern) Chand Publications,New Delhi, 2003.

04. George M. Moraes - The Kadambakula, A History of Ancient and Medieval Karnataka, Asian Educational Services, New Delhi. 1931,

05. ItihasDarshanas KarnatakaItihas Academy Bangalore. Volume No.1 to 30

06. TelagaviLaxman., Mauryas and Shatavahanas, Prasaranga Kannada University, Hampi, 2010.

07. Majumdar.R.C., History and Culture of the Indian People Vol., I- Macmillan Publication, New Delhi,1964.

08. Ramesh.K.V., Chalukyas of Vatapi,Agam Kala Prakashan Delhi, 1984,

09. NilakantaShastri K.A., A History of South India, Oxford University Press 1958.

10. Sheik Ali B., The Hoysala Dynasty, Prasaranga University of Mysore.1972,
11. ShilakanthaPattar,- Chalukyas of Badami, Prasaranga, Kannada University Hampi.2000,
12. S. Rajashekhara., TheChalukyas of Badami, Aryan Publications, International, 2016.

HISTORY AND ARCHAEOLOGY

B.A. V Semester OR

OPTIONAL PAPER– II : HISTORY OF MODERN EUROPE

(1450 -1914 A.D.)

Teaching Hours: 4 hrs per week 16x4= 64 hrs

Unit-I

A. Geographical Discoveries: – Causes Inventions and Results.
B. Renaissance-Meaning, Causes, Features and Renaissance in the field of Art, Literature and Science
C. Reformation Movement- Causes-Martin Luther, Counter Reformation and Results

Unit-II

A. French Revolution: – Causes Course and Results.
B. Napoleon Era- Conquests and Reforms.
C. Metternich Era:- Vienna Settlement, Concert of Europe.

Unit- III

A. 1830 and 1848 Revolutions of France and Europe
B. Second French Republic (1848-1852)
C. Second French Empire and Napoleon-III (1852-1870)

Unit-IV

A. Unification of Italy
B. Unification of Germany
C. Germany Empire (1871-1914)

Unit –V Map Topics:

A. Napoleon Conquests
B. Locate of Concert of Europe
C. Places of Historical Importance
   1) Paris 2) London 3) Vienna 4) Cape of Good Hope 5)Berlin6)Rome 7) Mascow8) Madrid 9) Constantinople 10) Alsace-Lorraine

Reference Books:

01. Edward Davis ; *Europe - A History*, Harper Perennial Publication, 1998.
02. Gokhale B.K.; *Modern Europe 1848 to 1960*, Philadelphia University, Jordan and Himalaya Publication, Bombay, 1987.
03. Fisher H.A.L.; *A History of Europe (2- Volumes)*, Fontana Publication, 1971.
04. Thomson David; *Europe Since Napoleon (First Edition)*, Penguin Books Limited, (UK), 1990.
05. Hazen Charles Downer ; *Europe Since 1815 Vol.-I*, Bell Publisher, 1909.
06. Edgar Swain James ; *A History of World Civilization*, published by McGraw Hill, New York, 1947.
07. Wall Bank and Taylor J.P.; *Civilization of Past and Present*, Harper Collins College Div Publication, 1992.
08. Taylor J.P.; *The struggle for mastery in Europe in 19th and 20th Century*, Publisher Oxford University Press, 1980.
09. Bames H.E.; *Intellectual History of Europe*, Publisher Prentice Hall, 1975.
10. Khurana K.L.; *History of Modern Europe (Ninth Edition)*, Educational Publishers, Agra, 2010.

HISTORY AND ARCHAEOLOGY
B.A. V Semester OR
OPTIONAL PAPER– I: History of Tourism and Heritage

Teaching Hours: 4 hrs per week 16x4= 64 hrs

Unit-I Definition and Sources of Tourism

A. Meaning and Definitions of Tourism

B. Sources of Tourism

C. Historical Evolution of Tourism

Unit-II Types and Services of Tourism

A. Types of Tourism-Historical, Cultural Tourism, Eco-Tourism etc.

B. Tourism Services-Travel agency, Tour Operators, Guides and Escorts

C. Transport-Road, Rail, Air & Water

Unit- III Tourist Destination and Fairs - Festivals

A. Important Tourist Destinations of Southern and Northern India, Incredible India

B. Tourism in Karnataka and its prospective "one state many worlds"

C. Fairs and Festivals- Cultural, National and Religious Festivals

Unit-IV Museums and Tourism in Karnataka

A. Museums as product of Tourism Historical, Tribal, Folk, Cultural and Natural History Museum.

B. K.S.T.D.C Policy, Karnataka Tourism Prospectus.

C. Tourism in Karnataka- Historical Sites, Hill Stations, Beaches, Bird and Wild life Sanctuaries

Unit-V: Map Topics:

A. Study Tour to World Heritage sites in India (any 1 or 2 sites per year)

B. Map questions- Important Tourist Places:1.Ajmer 2) Tirupati 3) Amritsar 4) Banaras 5) Goa 6) Nagarhole 7Hampi 8) Agra 9) Konark 10) Delhi 11) Calcutta 12) Bombay 13) Mount Abu 14Srinagar 15) Khajuraho.

Books for reference

1. History and Tourism (Kan. and Eng. Version) : K.S Vijaylakshmi
2. IGNOU study Material (Bachelor in Tourism Studies)
3. Bahratiya Pravasodyama : Dr.S.N Shivarudra Swami
4. Tourism products in India : T.C Gupta
5. ಭಾರತೀಯ ಪ್ರವಾಸೋದ್ಯಮ ಅಧ್ಯಯನ. ಡಾ॥ ಎಸ್.ಪಿ.ಸುರೇಬಾನಕಾರ ಮತ್ತು ಪ್ರೊ.ಸಿ.ಎಮ್. ಮುನ್ನೋಳಿ.

Department of History and Archaeology

SEC III . B.A – V Semester

Information Technology in Tousism

Teaching Hours : 2hrs per week 16 X 2= 32

Unit –I Computer and Information System

a) Internet, Www(world wide web), http(Hyper text transper protocol), Html (Hyper text markup language)
b) URL(Uniform Resource locator), DOS, Power Point
c) Role of Computer in travel and Tourism

Unit –II Map work

a) GPS (Global positioning system)
b) Calculating Distance on Map
c) Preparation of Charts of the Countries Information

Unit –III Procedure for Domestic and International Hotel Reservation

a) Documentation related with Hotel Reservation
b) Preparation of Hotel and Other Service Vouchers
c) Document Involved in Informing Sub – Agents for services

Reference Books :

1. James D.Foley : Computer Graphics
2. Kennet C.Loudon : E-commerce
3. Sanjiv Saxena : M.S.Office
4. Elliot D.Kapalan : Undestanding GPS

RANI CHANNAMMA UNIVERSITY, BELAGAVI

HISTORY and ARCHAEOLOGY

B.A- VI Semester

COMPULSORY PAPER-I : History of Modern India

Teaching Hours: 4 hrs per week 16x4 = 64hrs

Unit –I Socio-Religious Reform Movements of the 19th and 20th Century:

A. Brahmo Samaj- Raja Ram Mohan Ray. Arya Samaj – Dayanand Saraswati Swami Vivekanand- Ramkrishna Mission and Theosophical Society
B. Aligarh Movement- Sir Sayyed Ahmad Khan
C. Upliftment of Women and Social Reforms – Jyotiba Phule, Savitrbai Phule

Unit –II Indian Constitutional Developments

A. Act of 1909 and Act of 1919
B. Act of 1935
C. Indian Independence Act of 1947

Unit -III Backward Class and Indian National Movements:

A. Social Reforms of 20th Century: Chh. Shahu Maharaj, Dr.B.R. Ambedkar and Periyar Ramswamy
B. Freedom Movements Under the Moderates-1885 to 1905
C. Freedom Struggle from Extremities-1905 to 1919 and Mahatma Gandhiji- Indian National Movement

Unit-IV Partition of India and Economic Developments:

A. Mountbatten Plan- Partition of India-Princely States and Role of Vallbahi Patel
B. Jawaharlal Nehru Era – five years Plans-Economic Progress.
C. Indira Gandhi: Nationalizations of Banks and 20 Points Programme and Rajeev Gandhi :Panchayath Raj.

Unit V Map Topics:

A. Places of Princely States in India-

1. Kashmir 2.Mysore 3.Hydrabad 4.Gwalior 5.Travancore
6. Jaipur7.Baroda 8.Oudh 9. Kolhapur 10.Indore

B. Importance of Historical Places

1.Dandi 2. Aligarh 3. Chouri–Chaura 4.Lahore 5.Surat
6.Haripura 7. Calcutta 8. Banares 9. Champarannya 10. Belgaum.

Reference Books:

01. R.C. Majumdar - Advanced History of India
02. V.D. Mahajan - History of Modern India
03. M.K. Roy - Princely States and Paramount Power
04. Raychaudari - Social, Cultural and Economic History of India Modern Times
05. Bipin Chandra - Nationalism and Colonialism in India
06. Grover and Grover - A New Look at on Modern Indian History
07. Percival Spear - Oxford History of Modern India (1740-1975)
08. SumithSarkar - Modern India (1985-1947)
09. A.R. Desai - Social Background of Indian Nationalism
10. Hassan Imam - Indian National Movement
11. Gopal S. - British Policy in India (1858 -1905)
12. Srinivas M.N. - Social Change in Modern India
13. Mishra - The Uniform and Division of India
14. Anil Seel - The Emergence of Indian Nationalism
15. Tarachand - Indian National movement's volumes
16. L. P. Sharma - Modern India
17. R.N. Agarwal Indian National Movement and Constitutional Development
18. K.L.Khurana – History of Medieval India
19. Shivarudrswamy- AdhunikBharatdItihas

RANI CHANNAMMA UNIVERSITY, BELAGAVI
HISTORY And ARCHAEOLOGY
B.A- VI Semester OR
OPTIONAL PAPER-II: HISTORY OF MODERN KARNATAKA(1336-1956 A.D)

Teaching Hours: 4 hrs per week 16x4 = 64hrs

Unit- I Vijayanagar Empire and Deccan Sultans:

A. Vijayanagar Empire: Sangama, DevarayaII,Tuluva- Shri. Krishnadevaray and Achievements,Ramaraya - Battle of Talikote and Cultural Contributions of Vijayanagara Empire.
B. Bahamani:Mahammad Gawan- His Military and Administrative Reforms
C. Adilshahis of Bijapur :Muhammad Adilshahi, Ibrahim II and Contributions to Literature, Art and Architecture.

Unit - II Minor Dynasties of Karanataka

A. Wodeyars of Mysore and Minor Dynasties – Chikkadevaraj Wodeyars - Nayakasa of Keladi –Shivappa Nayaka.
B. Nayakas of Chitradurg : Veer Madakari Nayak –V and Nadaprabhus of Yalahanka –Kempegouda and Oneke Obavva.
C. Rise of Hyder Ali and Tipu Sultan : Their Achievements.

Unit – III Anti -British Revolts and Re-Rule of Mysore

A. Kittur Revolt : Rani Chennamma and Sangolli Rayanna
B. Babasaheb of Naragunda and Mundaragi Bheema Rao, Venkatappa Nayaka of Surupura Sansthan and Bedas of Halagali Revolts.
C. Rendition of Mysore Krishna Raja Wodeyar III-Diwan Poornayya

Unit - IV Commissioners and Reconstruction of Mysore

A. Commissioners rule of Mysore:Mark Cubbon and Luyi Bentham Bouring
B. Reconstruction of Mysore : Krishna Raja Wodeyar -IV - His Social, Industrial, Reforms . **Diwans of Mysore**: SheshadriIyer, Sir M Vishveshwarayya and Mirza Ismail- Their Reforms
C. Freedom Movement in Karnataka: Non- Co-operation Movement, Belgaum Session, Salt Satyagraha, Quit India Movement-Special Reference to Shivapura, Esur, Viduraswatva.
Unification Movement in Karnataka.

Unit - V Map Topics

A. The Vijaynagar empire under Krishnadevaray
B. Main Centres of Freedom Movement in Karnataka- 1.Esur 2.Vidurasatva 3. Shivpur 4.Belagavi 5. Ankola 6. Mundargi 7.Halagali 8.Kittur 9.Naragund 10. Surapur

Reference Books:

1. ನಂಜುಂಡಸ್ವಾಮಿ. ಎ.ಎಸ್: ವಿಜಯನಗರದಇತಿಹಾಸ, ಸಮಾಜ ಪುಸ್ತಕಾಲಯಧಾರವಾಡ. 1999,

2. ಲಕ್ಷ್ಮಣ್‌ತೆಲಗಾವಿ–ಚಿತ್ರದುರ್ಗ ನಾಯಕಅರಸರುರಾಜಕೀಯಚಿತ್ರ, ವಾಲ್ಮೀಕಿ ಸಾಹಿತ್ಯ ಸಂಪದ ಹರ್ತಿಕೋಟೆ. 2009,

3. ಲಕ್ಷ್ಮಣ್ ತೆಲಗಾವಿ–ಎಪ್ಪತ್ತೇಳು ಪಾಳೆಯಗಾರರು, ವಾಲ್ಮೀಕಿ ಸಾಹಿತ್ಯ ಸಂಪದ ಹರ್ತಿಕೋಟೆ. 2010,

4. Robert Sewell- Forgotten Empire, Delhi National Book Trust. 1982,

5. Saletore B.A-Social and Political life in the VijayanagaraEmpire,Madras. 1934,

6. Suryanarain Roy B, A History of Vijayanagara. The never to be forgotten Empire Asian Educational Services New Delhi1905,

7. VenkataRamanayya - Vijayanagara Origin of the city and Empire, Asian Educational Services New Delhi. 1933,

8. ಚುಳಕಿ ಆರ್.ಎಸ್– ಮೆಡೋಸ್‌ಟೇಲರನು ಚಿತ್ರಿಸಿದ ಭಾರತ. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು.

9. Chandrashekar V.S- Dewan Rangacharlu. Publication Divission. New Delhi-1981

10. Chandrashekar.S-. Dimensions of Socio-Political Change in Mysore-1918-1940. New Delhi-1948.

11. Diwakar R.R- Karnataka through the Ages-Bangalore-1968.

12. Gayathri, M.B-Development of Mysore State, 1940-56. Mysore 1997.

13. Hettne, Bjorn- The Political Economy of Indirect Rule, Mysore-1881-1947 Delhi.

14. Iyenger.A.R- The Economic Outlook of Mysore Wadeyar-1917

15. Ramakrishna.- Press and Politics in an Indian State, Mysore-1859-1947

HISTORY AND ARCHAEOLOGY
B.A. VI Semester OR
OPTIONAL PAPER– II : HISTORY OF MODERN EUROPE
(1914-1990 A.D.)
Teaching Hours: 4 hrs per week 16x4 = 64 hrs

Unit-I

A. First World War- Causes Course and Results.

B. Paris Peace Conference

C. League of Nations

Unit-II

A. Russian Revolution of 1917: – Causes Course and Results.

B. Lenin and Stalin-Domestic and Foreign Policy

C. Rise of Dictatorship in Italy and Germany

Unit- III

A. Second World War- Causes Course and Results.

B. UNO: Objectives, Structure and Achievements

C. Post- War military pacts in Europe-NATO, CENTO, SEATO Warsaw pact

Unit-IV

A. Cold War (1945-1990) Meaning, Ideology and Impact

B. Re-union of Germany -1990

C. Disintegration of USSR-Michael Gorbachev

Unit –V Map Topics:

A. Important places where battles of World War I occurred

B. Places of Historical Importance

1.Metz 2) Sarajevo 3) Geneva 4) The Hague 5) Rome 6) Berlin7) Munich 8) Warsaw 9) Crimea 10) Corfu 11) Bonn 12) Copenhagen 13) Lisbon 14) Locarno 15) Nuremberg

Books of reference :

1. Modern Europe : V.D.Mahajan
2. History of Modern Europe : Raghavendra Prabhu
3. Text book of European History: Raghubir Dayal, Dehi
4. Europe since Napolean, Penguin, 1978 : David Thompson
5. History of Modern Europe : C.D Hazen : S. Chand
6. Publication, New delhi.
7. Modern Europe- K L Khurana
8. ಆಧುನಿಕ ಯುರೋಪ : ಡಿ. ಟಿ ಜೋಶಿ
9. ಆಧುನಿಕ ಯುರೋಪ್ : ಕೆ ಜಗದೀಶ
10. ಆಧುನಿಕ ಯುರೋಪ : ಡಾ॥ ಘಟಪನದಿ
11. ವಿಶ್ವ ಇತಿಹಾಸದ ಹೆಜ್ಜೆ ಗುರುತುಗಳು : ರಾಮಲಿಂಗಪ್ಪ

HISTORY AND ARCHAEOLOGY
B.A. VI Semester OF
OPTIONAL PAPER– II: History of Modern Tourism
Teaching Hours: 4 hrs per week 16x4 = 64hrs

Unit-I Organization and Environment Tourism

A. Tourism Organizations: State, National and International
B. Organizations: Government, Semi- Government and Non-Governmental Organizations
C. Responsible Tourism- Protection of Physical, Natural Environment in Tourist Sites

Unit-II Impact of Tourism

A. Impact of Tourism
B. Impact of Tourism on Environment
C. Impact of Tourism on Society and Culture

Unit- III Heritage Sites and Development

A. World Heritage sites in India – Significance- Historical and Natural Sites.
B. Important Tourist Destination of Eastern, Western and Central India,
C. Threats to Tourism Development-Terrorism, Epidemics and Natural Disasters.

Unit-IV Economic Prospective of Tourism

A. Tourism as an Industry
B. Employment opportunities
C. Preservation and Conservation of Heritage Tourism Sites, Role and Responsibility of Tourists

Unit-V: Map Topics:

A. Map questions- Important Tourist Places

1 Westerns Ghats 2) Madikere 3) Mahabalipuram 4) Bhimbedka 5) Saranath 6) Elephanta 7 Mysore 8) Jaipur 9) Fatepur Sikri 10) Bijapur 11) Bodh Gaya 12) Pattadakal 13) Bandipur 14) Kulu Manali 15) Darjiling 16) Udupi 17) Ooty 18) Pondiehery, 19) Ajanta 20) Ellora

Reference Books:

01. Ashorth G.J - Marketing in Tourism Industry
02. Bhatia A.K. - International Tourism
03. Bhatia A.K. - Tourism Development
04. Chunk Kelvin - Professional Travel Agency Management
05. Clare, Gunn - Tourism Planning
06. Gregory A - The Travel Agent : Dealers in Dream
07. Tourism Department - Publications and Folders
08. Jafari J - Anatomy of the Travel Industry
09. Khan, Nafees A - Development Tourism in India
10. Krippendrof J - The Holiday Makers
11. Krishna K Karama - Basics of Tourism
12. KSTDC - Publication Individual Folders
13. KSTDC - Publications, Karnataka Traveler, Bangalore
14. Kulakarni M.V - Tourism Marketing
15. Marrison A.M. - Hospitality and Travel Marketing
16. Peters Mischel - International Tours
17. Ranga Mukesh - Tourism Potential in India
18. Vijayalakshmi, K.S.- History and Tourism

Department of History and Archaeology

SEC IV . B.A – VI Semester

Guiding Skill and Personality Development

Teaching Hours : 2hrs per week 16 X 2= 32

Unit –I Guiding Concept

a) Meaning
b) Concept and Types of Guides
c) Conceptual meaning of Tourist Guide

Unit –II Responsibility Of Guides

a) Preparation of Tour
b) Greeting Participants and Introducing self
c) General Instruction to Participants at Monuments

Unit –III Personality development

a) Introduction Meaning of personality
b) Personality Factors – External , Internal
c) Physical Fitness , Dressinf sense, formal and Informal Clothing

Refrence Books :

1. Goddy B.& Parkin I : Urban Interpretation, oxford polytechnic-1991
2. Pond K.L : The professional Guide , Newyork- 1993
3. Pond K.L : Dynamic of Tour Guiding, Newyork-1993

Department of History and Archaeology

QUESTION PAPER PATTERN

BA CHOICE BASED CREDIT SYSTEM (SEMESTER SCHEME)

W.e.f 2020-2021

Time: 3 hours **Max. Marks: 80**

NOTE: Read Instructions carefully. All parts are compulsory except for their Internal options.

PART – A

Instructions: Answer any four from the following in 100 words each. All questions carry equal marks. **4x5 = 20**

1)

2)

3)

4)

5)

6)

PART – B

Instructions: Answer any three from the following in 300 words each. All questions carry equal marks. **3x10 = 30**

1)

2)

3)

4)

5)

PART – C

Instructions: Answer any two from the following in 500 words each. All questions carry equal marks. **2x15 = 30**

1)

2)

3)

4)

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

POLITICAL SCIENCE

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

INTRODUCTION TO THE BA CHOICE BASED CREDIT SYSTEM

(SEMESTER SCHEME)

B.A Political Science Course is a Choice Based Credit System (Semester Scheme) spread over six semesters. The objective of the course is to provide a firm grounding in the subject, imbibe analytical skills and to develop a realistic and pragmatic perspective on the local, national, regional and international issues that figure in the syllabus.

The syllabus has been updated by offering many new and innovative papers keeping in view the changing times and the societal needs. The titles and detailed contents of the papers are mentioned below. All the Papers in the syllabus are provided with an extensive Reading list.

The goals and objectives of the B.A Political Science Course are as follows:

- To impart quality education to those seeking admission to the B.A Political Science course.

- To equip the students to prepare themselves for careers in teaching and research, the Union and State Civil Services, and the non-governmental sector.

- To increase awareness among students on local, national and international issues, and strengthen their analytical skills and capabilities.

- To train students to be good citizens and understand the framework of Indian constitution.

BA CHOICE BASED CREDIT SYSTEM (SEMESTER SCHEME)

SYLLABUS, POLITICAL SCIENCE w.e.f 2020-2021

Political Science BA Optional Syllabus - Course structure

SL.No.	Semester	Papers	Th. Marks
1.	1st semester	Paper-I: Introduction to Political Theory	80 Marks
2.	2nd semester	Paper-II: Western Political Thought	80 Marks
3.	3rd semester	Paper-III: Indian Political Thought	80 Marks
		Political Reporting (*Skill Enhancement Courses (SEC)*	50 Marks
4.	4th semester	Paper-IV: International Relations and Organizations	80 Marks
		Dimension of Politics (*Skill Enhancement Courses (SEC)*	50 Marks
5.	5th semester PAPER 5.1 PAPER 5.2	Paper-V (compulsory) Public Administration	80 Marks
		Paper-V (A) Optional- Public Policy Making in India Or	80 Marks

		Paper-V (B) Optional E-Governance	
	5th semester	Governance in India (*Skill Enhancement Courses (SEC)*	50 Marks
6.	6th semester PAPER 6.1 PAPER 6.2	Paper-VI (compulsory) Indian Government and Politics	80 Marks
		Paper-VI (A) Optional- Local Government in India Or Paper-VI (B) Optional Foreign Policy of India	80 Marks
	6th semester	A Course on Research Methodology (*Skill Enhancement Courses (SEC)*	50 Marks

QUESTION PAPER PATTERN

BA CHOICE BASED CREDIT SYSTEM (SEMESTER SCHEME)

W.e.f 2020-2021

Total Marks: 80 **Time: 3 hours**

NOTE: Read Instructions carefully. All parts are compulsory except for their internal options.

PART – A

Instructions: Answer any **Four** from the following in 100 words each. All questions carry equal marks. **4x5 = 20 marks**

1)

2)

3)

4)

5)

6)

PART – B

Instructions: Answer any **Three** from the following in 300 words each. All questions carry equal marks. **3x10 = 30 marks**

1)

2)

3)

4)

5)

PART – C

Instructions: Answer any **Two** from the following in 500 words each. All questions carry equal marks. **2x15 = 30 marks**

1)

2)

3)

4)

COURSE PATTERN, SCHEME OF EXAMINATION AND CREDITS BA (Political Science) CHOICE BASED CREDIT SYSTEM

(SEMESTER SCHEME) 2020-21

I, II, III, IV, V, VI SEMESTERS (CBCS) course structure

Subject	Papers	Instruction hrs/week	Duration of Exam (hrs)	Marks			Credits
				IA	Exam	Total	
Paper-1 Semester-I	Introduction to Political Theory	1x5	1x3	1x20	1x80	1x100	1x3=3
Paper-2 Semester-II	Western Political Thought	1x5	1x3	1x20	1x80	1x100	1x3=3
Paper-3 Semester-III	Indian Political Thought	1x5	1x3	1x20	1x80	1x100	1x3=3
	A Course on Reading Writing Skills (*Skill Enhancement Course (SEC)*	1X2	1x2	1x10	1x40	1x50	1x2=2
Paper-4 Semester-IV	International Relations and Organization	1x5	1x3	1x20	1x80	1x100	1x3=3
	Dimension of Politics (*Skill Enhancement Course (SEC)*	1X2	1x2	1x10	1x40	1x50	1x2=2
Paper – 5 V SEMESTER	Public Administration(Comp)	1x5	1x3	1x20	1x80	1x100	1x4=4
optional Paper - 5.1 Paper - 5.2	Public Policy Making in India OR E-Governance	1x5	1x3	1x20	1x80	1x100	1x4=4
	Governance in India (*Skill Enhancement Course (SEC)*	1X2	1x2	1x10	1x40	1x50	1x2=2
Paper - 6 VI SEMESTER	Indian Government and Politics(Comp)	1x5	1x3	1x20	1x80	1x100	1x4=4

optional **Paper - 6.1** **Paper - 6.2**	Local Government in India OR Foreign Policy of India	1x5	1x3	1x20	1x80	1x100	1x4=4
	A Course on Research Methodology (*Skill Enhancement Course (SEC)*	1X2	1x2	1x10	1x40	1x50	1x2=2

BREAK UP OF INTERNAL ASSESSMENT MARKS

Tests	10 marks (2 test each test 5 Marks)
Assignment & Seminar	05 marks
TOTAL	20 MARKS

Declaration of Results

a) Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the semester end examination. However a candidate should obtain at-least 40% marks in the semester end examination which will be for 80 marks. There are no minimum marks for the Internal Assessment. However after adding the IA marks and the semester end examination marks, the candidates should score a minimum of 40% of the maximum marks per paper. Candidate shall secure a minimum of 50 percent in aggregate in all the papers of a programme in each semester to successfully complete the programme.

b) The improvement of the performance is permitted as per the rules and regulations of the University.

Marks and Grade points

Sl. No	Percentage of Marks	GPA/CGPA	Grade
1	75 and above	7.50 to 10.00	A
2	60 and above but less than 75	6.00 to 07.49	B
3	50 and above but less than 60	5.00 to 05.99	C
4	40 and above but less than 50	4.00 to 4.99	D
5	Less than 40.00%	Less than 4.00	F

Grading

The Grade Point Average (GPA) shall be given to each candidate based on his/her performance during the semester which includes both the IA and the semester end examination. The GPA of each semester should be carried to next semester as Cumulative Grade Point Average CGPA.

Grade Points (Format)

$$\text{Semester GPA} = \frac{\text{Total Credit Points in all papers}}{\text{Credit hours}}$$

$$\text{Cumulative Grade Point Average} = \frac{\text{(GPA of all Semesters)}}{\text{Credits of All Semesters}}$$

Political Science BA Optional Syllabus - Course structure

Semester	Papers	Th. Marks
1st semester	**Paper-I: Introduction to Political Theory**	80 Marks
2nd semester	**Paper-II: Western Political Thought**	80 Marks
3rd semester	**Paper-III: Indian Political Thought**	80 Marks
3rd semester	**Political Reporting (*Skill Enhancement Courses (SEC)***	50 Marks
4th semester	**Paper-IV: International Relations and Organizations**	80 Marks
4th semester	**Dimension of Politics (*Skill Enhancement Courses (SEC)***	50 Marks
5th semester	**Paper-V (compulsory) Public Administration**	80 Marks
	Paper-V (A) Optional- Public Policy Making in India Or Paper-V (B) Optional E-Governance	80 Marks
5th semester	**Governance in India (*Skill Enhancement Courses (SEC)***	50 Marks
6th semester	**Paper-VI (compulsory) Indian Government and Politics**	80 Marks
	Paper-VI (A) Optional- Local Government in India Or Paper-VI (B) Optional Foreign Policy of India	80 Marks
6th semester	**A Course on Research Methodology (*Skill Enhancement Courses (SEC)***	50 Marks

Political Science Optional

B.A. Semester – I

Paper-I: Introduction to Political Theory

80 Marks 05 hrs per week

Course Rationale:

This is an introductory paper trying to expose students to some basic ideas and concepts in Political Science. Effort has been made to orient students to the methodological andideological traditions in political science.

Unit I – **Political Theory:**
Meaning, Nature, Scope and Importance.

Unit II - **Approaches to the Study of Political Theory**:
Normative, Historical andEmpirical.

Unit III – **Nomenclature and differences:**
Political Theory, Political Philosophy, Political Ideology.

Unit IV - **Political Traditions**:
Liberalism, Socialism, Marxism, Democracy.

Unit V- **Concepts:**
Power, Authority, Liberty, Justice, Rights and Duties.

Books Reference

1. S.Ramaswamy Political Theory: Ideas and Concepts, Macmillan Publications,New Delhi, 2002.
2. O.P.Gauba An introduction to political theory, Macmillan India Pvt. Ltd.,Delhi, Chennai, Mumbai, 2004.
3. A.C.Kapur Principles of Political Science, S. Chand and Co., New Delhi,1977.
4. A.AppaduraiSubstance of Politics, Oxford University Press, London, 1986.
5. E.Baker Principles of Social and Political Theory, Oxford University Press, London, 1976.
6. S.P.Verma Modern Political Theory, Vikas Publications, New Delhi, 1983.
7. David Held Political Theory today, Stanford University Press, Stanford,California, 1991.
8. G H Sabine History of Political Theory, Oxford and IBH, New Delhi, 1973
9. Roger Tatwell,Anthony WrightContemporary Political Ideologies, Rawat Publications, Jaipurand New Delhi, 2003.
10. Steven J Hood Political Development and Democratic Theory (RethinkingComparative Politics), Prentice Hall of India, New Delhi, 2004.
11. Robert E Goodie A New Handbook of Political Science, Oxford University Press,London, 1998.
12. Mac Donald Western Political Theory 19 & 20 Century, HBJ Publications,New York, 1968.
13. James G. KellarThe Politics of Nationalism and Ethnicity, St. Martins Press,New York, 1991.
14. Bhargava, R. and Acharya, A. (eds.) Political Theory: An Introduction.New Delhi: Pearson Longman, 2008
15. McKinnon, C. (ed.) Issues in Political Theory, New York: Oxford University Press, 2008
16. Andrew Heywood – Political Ideologies: An Introduction
17. ಎಂ.ಎಸ್. ಪಾಟೀಲ ರಾಜಕೀಯ ಸಿದ್ಧಾಂತ, ಪ್ರತಿಭಾ ಪ್ರಕಾಶನ, ತಾಳಿಕೋಟಿ.
18. ಎನ್.ಬಿ. ಪಾಟೀಲ & ಜಿ.ಬಿ. ಶೀಲವಂತರ ರಾಜಕೀಯ ಸಿದ್ಧಾಂತ ಅರುಣ ಪ್ರಕಾಶನ ವಿಜಾಪೂರ.
19. ಕೆ.ಜಿ. ಸುರೇಶ್, ರಾಜಕೀಯ ಸಿದ್ಧಾಂತ.

Political Science Optional
B.A. Semester – II

Paper-II: Western Political Thought

80 Marks 05 hrs per week

Course Rationale:
This paper studies the classical tradition in political theory from Plato to Marx with the view to understand how the great Masters explained and analyzed political events and problems of their time and prescribed solutions. The legacy of the thinkers is explained with the view to establishing the continuity and change within the Western political tradition.

Unit I – **History of Western Political Thought**,
Plato and Aristotle - Philosophy and Writings.

Unit II – **Medieval Political Thought**:
Features, Thomas Aquinas and Machiavelli – Philosophy and writings.

Unit III – **Modern Western Political Thought**:Features, Social Contractualists,Thomas Hobbes and Locke – Philosophy and writings.

Unit IV – **Modern Western Political Thought: Utilitarian's and Idealist's** – Jeremy Bentham and Thomas Hill Green.

Unit V – **Modern Western Political Thought: Scientific Theory** – Features, Karl Marx and Lenin.

Books Reference

1. C L Wayper Political Thought, B.I. Publications, Bombay, 1983.
2. Mukherjee &Ramaswamy History of Political Thought Plato to Marx, Prentice-Hall India, New Delhi, 1999.
3. E Barker The Political thought of Plato Aristotle, Dover Publications, New York, 1959.
4. W Ebenstein Great Political Thinkers, Oxford and IBH, New Delhi, 1969.
5. D R Bhandari History of European Political Philosophy, Bangalore Printing & Publishing Co. Ltd., Bangalore, 1990.
6. Urmila Sharma & S.K. Sharma- Western Political Thought
7. J P Suda -Modern political thought
8. O P Gauba -Western Political Thought
9. Boucher, D. and Kelly, P. (eds.) Political Thinkers: From Socrates to the Present, New York: Oxford University Press
10. ಎಂ.ಎಸ್. ಪಾಟೀಲ ರಾಜಕೀಯ ಸಿದ್ಧಾಂತ, ಪ್ರತಿಭಾ ಪ್ರಕಾಶನ, ತಾಳಿಕೋಟಿ.
11. ಎನ್.ಬಿ. ಪಾಟೀಲ ಪಾಶ್ಚಿಮಾತ್ಯ ರಾಜಕೀಯಚಿಂತನೆಅರುಣ ಪ್ರಕಾಶನ ವಿಜಾಪೂರ.
12. ಗುರುರಾಜ ನಾ. ಜೋಶಿ ಪಾಶ್ಚಿಮಾತ್ಯ ರಾಜಕೀಯಚಿಂತನೆರೂಪಾ ಪ್ರಕಾಶನಧಾರವಾಡ 2010
13. ಎಂ.ಪಿ. ಭುವನೇಶ್ವರ ಪ್ರಸಾದ್ – ಆಧುನಿಕ ರಾಜಕೀಯ ಚಿಂತಕರು
14. ಕೆ.ಜೆ.ಸುರೇಶ್ – ಪಾಶ್ಚಿಮಾತ್ಯ ರಾಜಕೀಯ ಚಿಂತಕರು

Political Science Optional

B.A. Semester – III

Paper-III: Indian Political Thought
80 Marks 05 hrs per week

Course Rationale:
This paper attempts to introduce students to the entire gamut of political thinking in India from the beginning to the present. It focuses on key thinkers from ancient to modern times tounderstand their seminal contribution to the evolution of political theorizing in India. Itemphasizes on the distinctive contribution of Indian thinkers to political theorizing and therelative autonomy of Indian political thought.

Unit I – **Ancient Indian Political Thought** – Nature, Features, Significance, Scope and Relevance.

Unit II - **Political Thought of Kautilya and Manu**: Their writings and Political Philosophy.

Unit III – **Medieval Indian Political Thought**: Features, Theories of Kingship, Governance and Role of Religion in Society.

Unit IV – **Modern Indian Political Thought**: Features, Colonialism and Indian National Movement.

Unit V – Modern Indian Political Thought: Leadership, Role and Philosophy of M K Gandhi, Dr. B.R. Ambedkar.

Books Reference

1. N. Jayapalan, Indian Political Thinkers: Modern Indian Political Thought
2. Urmila Sharma& S.K. Sharma, Indian Political Thought
3. V.P. Varma-Modern Indian political Thought
4. K. S. Padhy- Indian Political Thought
5. V.P. Varma- Ancient and Medieval Indian political Thought
6. Sherwin Haroon Khan, Muslim Political Thought & Administration, Delhi, 1991
7. Mehta, V. R. *Foundations of Indian Political Thought.* New Delhi: Manohar Publishers, 1992
8. Panthan, Th. & Deutsch, K. L. (eds.) *Political Thought in Modern India.* New Delhi 1986
9. Singh, M.P. and Roy, H. (eds.) *Indian Political Thought:Themes and Thinkers,* New Delhi: Pearson. 2001
10. ಎಂ.ಎಸ್. ಪಾಟೀಲ ಭಾರತೀಯರಾಜಕೀಯಚಿಂತನೆ, ಪ್ರತಿಭಾ ಪ್ರಕಾಶನ, ತಾಳಿಕೋಟಿ
11. ಎನ್.ಬಿ. ಪಾಟೀಲ ಭಾರತೀಯರಾಜಕೀಯಚಿಂತನೆಅರುಣ ಪ್ರಕಾಶನ ವಿಜಾಪೂರ.
12. ಎಂ.ಪಿ. ಭುವನೇಶ್ವರ ಪ್ರಸಾದ್ – ಪ್ರಾಚೀನ ಭಾರತದ ರಾಜಕೀಯ ತಾತ್ವಿಕರು
13. ಕೆ.ಜೆ.ಸುರೇಶ್ – ಪಾಶ್ಚಿಮಾತ್ಯ ರಾಜಕೀಯ ಚಿಂತಕರು,

THIRD SEMESTER

Paper: Political Reporting

(Skill Enhancement Courses (SEC)

50 MARKS 0 2 HOURS

Rationale

This course teaches students the fundamentals of covering political world (between 37 to 60 percent of political news is covered by the media on an average per day) in reporting it professionally. This course is designed to provide a broad overview of the nuances of interpreting the political phenomena starting from the grassroots to the parliament. The idea is to help students develop insights and enlarge their job opportunity by enhancing their skills in a professional manner by giving deeper knowledge of the reporting activity in the age of mass media and new social media. This will thus help students to develop skills of reporting and make it as a career by adding value to their master's degree.

Unit I- Nature of Politics

1. Meaning and Nature of State, Defining Politics and Measuring Political Developments
2. Defining the role of Mass Media-Press, Radio and TV in India

Unit II- Political Action and Media

1. Defining Political News, Nature of Political News and Forms of Political News
2. Defining the limits of Political Reporting and working of Lobbies and Pressure Groups

Unit III- Assessment and Political Reporting

1. Central, State, Local Governments and Judiciary - an assessment of their working
2. Writing Reports - background information, criteria for evaluation (parameters), drawing conclusions

Unit IV- Journalistic Communication

1. Journalistic writing skills, Dead Lines and Interview Reporting
2. Writing Blogs, Punctuation, and Grammar needs.

References

1. Sharon Hartin Iorio, *Qualitative Research In Journalism*, London: Erlbaum Associates, 2004
2. Davis Merritt, *Public Journalism And Public Life, Erlbaum Associates*, London: 2004
3. Raymond Kuhn, *Political Journalism New Challenges*, New York: New Practices, Rutledge, 2003
4. Gail Sedorkin And Judy MCgregor, *Interviewing – A Guide For Journalist And Writers*, Crow's Nest, N.S.W.: Allen and Unwin, 2002
5. R.T.Jangam, (etal) *Political Analysis*, New Delhi: Oxford and IBH Publication, 1997
6. J.C.Johari, *Comparative Politics*, New Delhi : Sterling Publishers, 1982
7. Robert A. Dahl, *Modern Political Analysis*, New Delhi: Prentice Hall of India, 1981

Political Science Optional

B.A. Semester – IV

Paper-IV: International Relations and Organization

80 Marks 05 hrs per week

Course Rationale:

This paper deals with concepts and dimensions of international relations and The Concept of theories of power and different aspects ofbalance of power are included. The student is expected to study International Politics andIndia's Foreign Policy from a pro-active and futuristic perspective.

Unit I **- Introduction:** Meaning, Nature, Scope and Importance, Growth of International Relations as a discipline.

Unit II – **Theoretical Approaches to the study of International Relations**- Traditional, Normative and Behavioural Approaches

Unit III – Concepts in International Relations: National and State, Empire, Non-State Actors, Foreign Policy, Political System, Nationalism, Globalization, Security,Power,Diplomacy International law, Sovereignty

Unit IV - **Contemporary Challenges to International Relations**: International terrorism, Climate Change, Human Rights and Migration

Unit V – **International and Regional Organizations**:UN, WTO, BRICKS, EU ASEAN, African Union and Arab League.

Books Reference

1. Palmer and Perkins International Relations The World Community in Transition, Scientific Book Agency, Latest Edition.
2. Michael G. Roskin I.R. the New World of International Relations, Prentice Hall of India, New Delhi, 2002
3. Peter Calvocoressi World Politics 1945-2000, Pearson Publications, New Delhi, 2004
4. Vinay Kumar Malhotra International Relations, Anmol Publications, New Delhi, 2004
5. Joshua S. Goldstein International Relations, pearson Publications, New Delhi, 2004
6. Vandana V. Theory of International Politics, Vikas Publishing House, New Delhi, 1996
7. Prakash Chandra International Politics, Vikas Publishing House Pvt, Ltd. New Delhi, 2001.
8. Robert Jackson and George Sorensen Introduction of International Relations, Oxford University, Press, 1999
9. H.J. Morgenthau, Politics among Nations
10. Mahendar Kumar, Theoretical Aspects of International Politics
11. JC Johari, International Relations and politics
12. Urmila Sharma, International Relations
13. ಎನ್.ಬಿ ಪಾಟೀಲ, ಅಂತರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು ಹಾಗೂ ಸಂಘಟನೆಗಳು, ಅರುಣ ಪ್ರಕಾಶನ, ವಿಜಯಪುರ
14. ಡಾ.ಎಂ.ಪಿ. ಭುವನೇಶ್ವರ ಪ್ರಸಾದ್– ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳ ಪರಿಕಲ್ಪನೆಗಳು
15. ಕೆ.ಜೆ.ಸುರೇಶ – ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು, ಚೇತನ ಬುಕ್ ಹೌಸ್
16. ಹಾಲಪ್ಪ – ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ

FOURTH SEMESTER

Paper: Dimension of Political
(*Skill Enhancement Courses (SEC)*

50 MARKS 02 HOURS

Course Rationale: Has been framed with greater interest for effusing students with synoptically knowledge of the political science. It familiarizes students with essential components of Political Science, but also enhances the development of human personality. In nutshell it provides multiples avenues for students across the variegated disciplines.

Unit I – Essentials of democracy

National Integration, Political Parties, Pressure Groups and Interest groups.

Unit II - Debates on Current Issues

Debate on Reservation, Fundamental Duties, Media & Politics

Unit III – New Paradigms

Right to Information Act, Anti Defection Act, Public Interest Litigation

Unit IV – Socio- Political Thoughts

Dr.B.R. Ambedkar: Chairman of Drafting Committee,

Mahatma Gandhi – Non Violence,

Basavanna – Social Justice.

BOOKS REFERENCES

1. Granvile Austin, Working of a Democratic Constitution: The India Experience, New: Oxford University Press, 2000.
2. M. V. Pylee, our Constitutions, Government and Politics, New Delhi: Universal 2002.
3. Ajay Mehra, ed (2013) Party System in India: Emerging Trajectories, Lancer, New Delhi.
4. B.L. Shankar and Valerian Rodrigues (2011) The Indian Parliament, Oxford University Press, New Delhi.
5. Sandeep Shastri, K.C.Suri and Yogendra Yadav (2009) Electoral Politics in Indian States: Elections and Beyond, Oxford University Press, New Delhi
6. Rajeev Bhargava (2009) Politics and Ethics of the Indian Constitution, Oxford University Press
7. Mohanty, Biswaranjan. (2009). Constitution, Government and Politics in India – Evolution and Present Structure, New Century Publications, New Delhi.

Political Science Optional

B.A. –V Semester
Paper V – (Compulsory)
Public Administration

80 Marks 05 hrs per week

Course Rationale:
This paper is an introductory course in Public Administration. The effort is to introduce students to the basic principles, key administrative thinkers, and the main instrument-bureaucracy/civil service – of administration.

Unit I – **Introduction**: Public Administration: Evolution, Meaning, Scope and Significance, Difference between Public and Private Administration.

Unit II – **Approaches to the study of Public Administration:** Traditional – Historical and Analytical, Normative – Legal and Philosophical.

Unit III – **Administrative Thinkers and Theories:** Classical Theory- Henry Fayol, Scientific Management Theory- F.W.Taylor, Human Relations Theory-Elton Mayo

Unit IV – **Concepts in Public Administration and New Public Administration**: Hierarchy, Unity of Command, Span of Control, Authority, Centralization, Decentralization and Delegation, Line and Staff, features of New Public Administration.

Unit V – Basic Statistics–:Units of Analysis and Variables, Basic Idea of Central Tendency, Mean, Mode, Median, Basic Ideas of Distribution, Sampling Concepts, Hypothesis testing.

Books Reference

1. M.P.Sharma B.L. Sadana Public Administration in Theory and Practice, KitabMahal, New Delhi,2005.
2. Raymond W.Cox Susan J.BuckBettty N. Morgan Public Administration in Theoryand Practice, Pearoson Publication, New Delhi, 2004
3. Nicholas Henry Public Administration and Public Affairs, Prentice Hall of India,New Delhi, 2003
4. R.K. Arora C.V.Raghavulu values in Administration, Associated Publishing House,New Delhi, 1989
5. VishnooBhagwanVidyaBhushan Public Administration, S.Chand& Co., NewDelhi, 2005
6. Avasthi&Maheshwari Public Administration, Lakshmi NarainAgarwal, Agra,2004
7. Mohit Bhattacharya Public Administration : Structure, Process and Behaviour,World Press, Calcutta, 1987
8. Ram Avtar Sharma Public Administration Today, Shree Publishers & Distributers,New Delhi, 2005
9. Fadia&Fadia Public Administration Theries and Concepts, SahityaBhavanPublications, Agra, 2005
10. A.R. Tyagi Public Administration, Principles & Practice, Atma Ram &Sons, Delhi, 2001
11. C.P. Bhambhri Public Administration, Jai PrakashNath& co., Meerut, 2000
12. Rumki Basu-Public Administration concepts and Theories
13. G.H. Frederickson: New Public Administration.
14. ಎನ್.ಬಿ. ಪಾಟೀಲ ಸಾರ್ವಜನಿಕ ಆಡಳಿತ ಅರುಣ ಪ್ರಕಾಶನ ವಿಜಯಪುರ
15. ಕೆ.ಜೆ.ಸುರೇಶ್ – ಸಾರ್ವಜನಿಕ ಆಡಳಿತ,
16. ಮಾಲಿಮದ್ದಣ್ಣ – ಸಾರ್ವಜನಿಕ ಆಡಳಿತ,
17. ಹೆಚ್. ಟಿ. ರಾಮಕೃಷ್ಣ – ಸಾರ್ವಜನಿಕ ಆಡಳಿತ, ಲಲಿತ ಪ್ರಕಾಶನ
18. ಹಾಲಪ್ಪ– ಸಾರ್ವಜನಿಕ ಆಡಳಿತ.
19. Kothari, Research Methodology: Methods and Techniques, New Delhi, new Age International, 2014.
20. Gupta. S.C and Kapoor V.K. Fundamentals of Mathematical Statistics, Sultan Chand and sons, (2001)
21. Freund J.E., Mathematical Statistics, Prentice hall, (2001)

Political Science Optional

B.A. –V Semester
Paper V (A)– (Optional)

Public Policy Making in India
80 Marks 05 hrs per week

Course Rationale: This paper introduces to the students of 21st century development of policy technology – in its rational, institutional and behavioural dimensions.

Unit I - **Public Policy**: Introduction, Concepts of Public and Policy -Nature, Scope and Significance of Public Policy, Definition .

Unit II - **Evolution of Public Policy Studies, Types of Public Policy**: Regulatory, Welfare, Distributive and Re-distributive, Models of Public Policy Systems Model, Herbert Simon.

Unit III - **Policy Making in India**: Constitutional framework for Policy Making, Institutional Factors: Legislature, Executive, Judiciary, Planning Commission and National Development Council.

Unit IV – **Factors that influence Policy making:** Public Opinion, Political parties, Pressure groups, Media and Professional Bodies -External Influencing Agencies- UN, ILO, World Bank and IMF.

Unit V – **PolicyMonitoring and Evaluation**:Approaches and Techniques, Policy Monitoring and Evaluation, Types of Evaluation

Books Reference

1. Dror, Y. Public Policy Making Reexamined. Oxford: Transaction Publication, 1983
2. Dye, T.R. Understanding Public Policy. New Jersey: Prentice Hall 1975
3. R.V. Vaidyanatha Ayyar, Public Policy Making In India, Pearson.
4. Noorjahan Bava, Development Policies and Administration in India.
5. A.Celestine: How to Read the Union Budget PRS, Centre for Policy Research, New Delhi, Availableat http://www.prsindia.org/ parliamenttrack/ primers/ how-to-read-the-union-budget-1023/
6. B. Chakrabarty and P. Chand: Public Policy: Concepts, Theory and Practice
7. Zoya Hasan (ed.),Politics and the State in India, New Delhi
8. Kaushiki Sanyal and Rajesh Chakrabarti, Public policy in India 2017
9. Kuldeep Mathur, Public Policy and Politics in India: How Institutions Matter, 2013
10. Prabir Kumar De, Public Policy and Systems

Political Science Optional

B.A. –V Semester
Paper V (B) – (Optional)

E-Governance
80 Marks 05 hrs per week

Course Rationale: This paper gives introduction to good governance and how can be achieved by information system and E- governance.

Unit I - **E-Governance**Meaning, Nature, Definition and Scope and Significance of E-Governance, Domains of E-Governance, Current Status of Indian E-Governance efforts.

Unit II - **E-governance at Union and State level**, National E-Governance Plan –Central Mission Mode Projects, State Mission Mode Projects.

Unit III - **Major E-governance Projects**: Gyandoot, Warna, E-choupal, E-Bhoomi, E-Governance in Nioda City, Raj Nidhi, Raksha Bhoomi.

Unit IV – **Governance**- Meaning and significance, Citizen Centric Governance, -E-Government Services, Public Private Partnership and Expansion of E-Governance.

Unit V - **E-Governance -Transparency and Accountability at Grassroots Level. Issues and Challenges of E-governance:**Digital Divide, Capacity Building, Cyber Security.

Books Reference

1. M.J.Moon, The Evolution of Electronic Government Among Municipalities: Rhetoric or Reality, American Society For Public Administration, Public Administration Review, Vol 62, Issue 4, July – August 2002
2. Vasu Deva, E-Governance In India : A Reality, Commonwealth Publishers,2005
3. Pankaj Sharma, E-Governance: The New Age Governance, APH Publishers,2004
4. Pippa Norris, Digital Divide: Civic Engagement, Information Poverty and the Internet in Democratic Societies, Cambridge: Cambridge University Press, 2001
5. Anil Dutta Mishra, Good Governance a Conceptual Analysis, in AlkaDhameja, 2010
6. Zhiyuan Fang, E-Government in Digital Era: Concept, Practice, and Development, International Journal of The Computer, The Internet and Management, Vol. 10, No.2, 2002
7. MahapatraR, and Perumal S. 2006. "e-governance in India : a strategic framework", International Journal for Infonomics: Special issue on measuring e-business for development. January
8. Signore O., Chesi F. and Pallotti M. 2005, "E-Government: challenges and opportunities", CMG Italy - XIX annual conference, June7-9.
9. Henrik Paul Bang, (Ed.) Governance as Social and Political Communication, Manchester University Press, New York 2003
10. Malick M H and Murthy A V K, the Challenge of E-Governance, The Indian Journal of Public Administration, Vol.47, IIPA, New Delhi, 2001

FIFTH SEMESTER

Paper: Governance in India
(*Skill Enhancement Courses (SEC)*

50 MARKS 0 2 HOURS

Course Rationale: The paper-Governance in India throws light upon the over-all political fabric of India. Focuses it's also on the nation's socio-communal structure, ingredients of good governance and important national commissions. By doing so this paper acquaints the students to essential strands of socio-political principles and mechanisms of good governance thus making is students being equipped with necessary potentials required for leading a secured life.

Unit -1 Constitution of India

Characteristics of Indian Constitution, Preamble, Secularism and Communalism.

Unit-2 Democracy

Issues and Challenges to Democracy, Electoral System, NOTA

Unit-3 Governance

E-Governance, Good Governance, Local Self Government

Unit-4 Commissions in India

National Commission for SC & ST, National Commission Women. NITI Ayoga

Books Reference

1. Bridge Kishore Sharama, Introduction to the Constitution of India, New Delhi, Prentice Hall of India : 2004
2. B.R. Ambedkar. The Untouchables: who were they and why they become untouchables? Bombay: Govt. of Maharashtra, 1990.
3. Granvile Austin, Working of a Democratic Constitution: The Indian Experience, New: Oxford University Press, 2000.
4. M.V. Pylee, our Constitutions, Government and Politics, New Delhi:Universal 2002.
5. Rajendra Sigh, Social Movement, Old and New A Post Modernist Critique, Delhi: Sage Publication, 2001.
6. S.C. Kashayap, Reforing the Constitution, New Delhi: UBSPD, 1992.
7. Ranani Kothari, Politics in India, New Delhi : Orient Longman, 2003.
8. B.L. Padi, Contemporary India Politics, Agra: Sahitya Bhavan, 1988.
9. C.P. Bhambri, Indian Politics since Independence New Delhi: Shipra, 1994.
10. J.C. Johari, Indian Politics, Jalundar: Vishal, 1990.
11. A.C. Kapoor, Indian Political System, New Delhi: S. Chand and Company, 1982.
12. P.B. Desai, Basaveshwara and His Time: Goa University Press Published in 1960.
13. Shri. Kumarswamijii, Belong of Humanity, 1994.
14. Prof. Jadi Musalayya, Basaveshwar Philosophy 1140 AD to 1196, New Delhi Current Publication, 1994.
15. R. H. Chandangoudar, Twelth century revaluation for equality and social justices, Bangolre Jagjyoti Trust, 2008.

Political Science Optional

B.A. –VI Semester
Paper VI – (Compulsory)

Indian Government and Politics

80 Marks 05 hrs per week

Course Rationale: This paper introduces students to the Constitution of India in its structural and functional aspect. It is expected that the knowledge acquired in the introductory political theory paper shall be juxtaposed in understanding the nitty-gritty of this paper.

Unit I – **Introduction:** Constituent Assembly: Structure and Composition, Framing of the Indian Constitution- MajorDebates,Preamble, Citizenship and salientfeatures.

Unit II - Fundamental Rights,Directive Principles of State Policy, FundamentalDuties, Basic Structure of the Constitution and Ninth Schedule and its significance.

Unit III - **Union Government**: Executive: President, Election, Powers and Functions, Prime Minister and Council of Ministers Power and functions, RajyaSabha – its need and significance.

Unit IV – **State Governments**: Composition, Powers and Functions, Vidhana Parishat – Its need and Significance, Judiciary: High Court and Supreme Court composition powers and functions.

Unit V – **Party System**: Features and Trends, National and Regional Parties, Coalition Politics, Election Commission and NITI Ayog.

Books Reference

1. M.V.Pylee, An Introduction to the Constitution of India, New Delhi, Vikas, 2005.
2. Subhash C. Kashyap, Our Constitution: An Introduction to India's Constitution and constitutional Law, New Delhi, National Book Trust, 2000.
3. Durga Das Basu, Introduction to the Constitution of India, New Delhi, Prentice Hall of India, 2001.
4. D.C.Gupta, Indian Government and Politics, VIII Edition, New Delhi, Vikas, 1994.
5. J.C.Johari, Indian Government and Politics, Delhi, Sterling Publishers, 2004.
6. V.D.Mahajan, Constitutional Development and National Movement in India, New Delhi, S. Chand and Co., latest edition.
7. Constituent Assembly Debates, New Delhi, LokSabha Secretariat, 1989.
8. Granville Austin, Working of a Democratic Constitution : The Indian Experience, New Delhi, Oxford University Press, 1999.
9. A.P.Avasthi, Indian Government and Politics, Agra, Naveen Agarwal, 2004.
10. Dr .B.L.Fadia. Indian Government and Politics.
11. Dr. Prakash Chandra, Indian Government and Politics
12. ಎನ್.ಬಿ. ಪಾಟೀಲ ಭಾರತ ಸರ್ಕಾರ ಮತ್ತು ರಾಜಕೀಯ ಅರುಣ ಪ್ರಕಾಶನ ವಿಜಯಪುರ
13. ಡಾ. ಎಚ್. ಎಂ. ರಾಜಶೇಖರ ಭಾರತದ ಸಂವಿಧಾನ ಮತ್ತು ರಾಜಕೀಯ, ಕಿರಣ್ ಪ್ರಕಾಶನ, ಮೈಸೂರು
14. ಪ್ರೊ. ಎನ್. ಹಾಲಪ್ಪ , ರಾಜ್ಯಶಾಸ್ತ್ರ, ಚೇತನ ಬುಕ್ ಹೌಸ್, ಮೈಸೂರು
15. ಕೆ.ಜೆ.ಸುರೇಶ್–ಭಾರತ ಸಂವಿಧಾನ

Political Science Optional

B.A. –VI Semester
Paper VI(A)– (Optional)

Local Government in India
80 Marks 05 hrs per week

Course Rationale: *This paper structures multi-dimensional and inter-sectorial knowledge-base for strengthening Local Government Institutions in India. The curriculum enables the youth to analyses the dynamics of decentralized governance and to equip them with the requisite skills towards realizing local economic development and social justice.*

Unit I – **Empowerment**: Definition, Meaning, Significance, Empowering People and Local Governments: Need, Relevance, Decentralization and Powerto the People.

Unit II – **Approaches to the study of Local Governments**: Constitutional – Legal Political, Administrative, Economic and Developmental Approach.

Unit III–**Committees to strengthen Panchayats in India:** BalawantaRai Mehta Committtee, Ashok Mehta Committee, Singvi Committee – theirrecommendations

Unit IV - **Constitutional and Political Empowerment**: Division of Powers between Centre and States, Urban and Rural Local Governments: 73rdand 74th Amendment,

Unit V - **Administrative Empowerment**: Decision Making Powers of the LocalGovernments, Karnataka Panchayat Raj Act 1993 and Karnataka municipal Corporation Act 1976 - Structure, functions and Powers

Books Reference

1. Maheshwari S R, Local Government in India, New Delhi, Orient Longman, New Delhi, latest edition.
2. R.P Joshi & G.S. Narwani, Panchayati Raj in India: Emerging Trends, Rawat Publications, Jaipur, 2002
3. A History of Local Self Government in Rural Karnataka- -Dr. M. Umapathi
4. M.A. Muttalib and MA Khan, Theory of Local Government, Sterling Publishers Pvt. Ltd. New Delhi.
5. Mohit Bhattacharya, Management of Urban Government in India, Uppal Book Store, New Delhi
6. Mishra, S.N., Dreams and Realities: Expectation from Panchayati Raj, New Delhi, IIPA, 1996
7. 73rd and 74th Constitutional Amendment Act, 1992
8. S.N. Jha and P.C. Mathur, Decentralization and Local Politics, New Delhi, Sage, 1999
9. S.R. Maheswari, Local Government in India, Lakshmi Narain Agarwal, Agra, 2003
10. S. Singh and P. Sharma: Decentralization: Institutions and Politics in Rural India
11. Anil Jana ed.: Decentralizing Rural Governance and Development
12. ಕರ್ನಾಟಕ ಪಂಚಾಯತ್ ರಾಜ್ ಅಧಿನಿಯಮ 1992

Political Science Optional

B.A. –VI Semester
Paper VI(B)– (Optional)

Foreign Policy of India

80 Marks 05 hrs per week

Course Rationale

The course seeks to acquaint students with the illusion of India's foreign policy since independence. Particular emphasis is laid on the foundation aspects of foreign policy as alsoshedding light on the mechanics and dynamics of foreign policy making and implementation.Emerging aspects embodying India's interface with global and regional players and multilateralorganizations and forums shall also be dealt with.

Unit I – **Foundations**: Nehru's Legacy Non-Alignment and Panchasheel and Post-Nehruvian Innovations in India's Foreign Policy: Transformation of International Politics Post Cold War: Implications for India

Unit II - **Dealing with Major Powers**: India's Foreign Policy towards -USA and European Union, Russia, China

Unit III - **Changing Contours of Indian Foreign Policy**: Look South and South-East, Neighbour First Policy under Modi, Foreign Policy during the Coalition Era

Unit IV - **Economic Dimensions of Foreign Policy**: Globalisation, International Trade, Multinational Corporation and Regional Cooperation

Unit V - **India's Approach to Major Global Issues and Institutions:** UN, WTO, Disarmament and Arms Race, Cross Border Terrorism and Human Rights, Global Environment.

Books Reference

1. The Clash of Civilizations and the Remaking of World Order (Paperback)
   bySamuel P. Huntington
2. India's Foreign Policy: Retrospect and Prospect Paperback– by SumitGanguly
3. Global Politics Andrew Heywood
4. Foreign Policy of IndiaProf. N.Jayapalan
5. Foreign Policy of IndiaDr. SubhashShukla
6. Foreign Policy of india and Asia-PacificK.Raja Reddy
7. New Horizons of Indian Foreign PolicyDr. M.R.Biju
8. Engaging the World Indian Foreign Policy since 1947SumitGanguly
9. The Making of India's Foreign Policy, New Delhi: Allied Publishers, J. Bandhopadhyaya,
10. S. Mehrotra, (1990) 'Indo-Soviet Economic Relations: Geopolitical and Ideological Factors', in India and the Soviet Union: Trade and Technology Transfer, Cambridge University Press: Cambridge
11. ಡಾ.ಪಿ.ಎಸ್.ಜಯರಾಮು – ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು
12. ಹೆಚ್ . ಟಿ. ರಾಮಕೃಷ್ಣ– ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು
13. ಪ್ರೊ. ಎನ್. ಹಾಲಪ್ಪ , ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು, ಚೇತನ ಬುಕ್ ಹೌಸ್, ಮೈಸೂರು
14. ಎನ್. ಬಿ ಪಾಟೀಲ, ಅಂತರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು ಹಾಗೂ ಸಂಘಟನೆಗಳು, ಅರುಣ ಪ್ರಕಾಶನ, ವಿಜಯಪುರ

SIXTH SEMESTER

Paper: A Course on Research Methodology
(*Skill Enhancement Courses (SEC)*

50 MARKS 0 2 HOURS

Course rationale: This course will help the students to understand the significance of research in political science and social sciences and equips them with deeper understanding about the problems of our society. (***For last unit topic shall be chosen by the students under the guidance of political science teacher within the broad area of the discipline. NOTE: Project work is for 50 marks.***

Unit-1 Introduction

Meaning, nature and significance of social sciences research. Need for research: its history and utility.

Unit-2 Methods in political science research:

Types of Research: Fundamental and applied. Traditional and Scientific methods Research design: types, formulation of problem, literature survey, hypotheses and its types.

Unit-3 Introduction to Field Study:

Types of Data collection and Techniques. Survey Research. Use of information technology and its application.

Unit-4 Data Analysis and Report Writing:

Processing of data, computer application for data analysis. Structure and content of research report and Project Work.

Books Reference

1. Varma, Basic research in Political science, Rawat publication, Jaipur, 1989.
2. Jayapalan. N., Research Methods in Political Science, New delhi, Atlanta, 2000.
3. Simon J, Basic research in methods in social sciences, New York, Random House, 1969.
4. Kothari & others, Research Methodology: methods and techniques, New Age international, New Delhi, 2014.
5. Johnson & Joslin, Political science research methods, Prentice hall of India, New Delhi, 1989.
6. Greenstein and Polsby, Strategies of Inquiry, Handbook of political science, California Addison, Wesley, 1975.

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

SOCIOLOGY

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
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Date: 20-12-2019

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2	**Dr. D.M. Jawalakar** Govt. First Grade College, Khanapur, Belagavi	Member
3	**Dr. M. M. Hiremath** BVVS Basaveshvar Arts College, Bagalkot	Member

B.A. Sociology (Optional)
CBCS Syllabus (UG)
(W.e.f. 2020-21 Onwards)

Semester	Code/ Course	Paper No	Title of the Paper	Teaching Hours/ Week	Credits	Marks			Duration of Sem. End Exam
						IA	Sem. End Exam	Total	
I	ASOCDSC 1	1	Principles of Sociology	5	3	20	80	100	3
II	BSOCDSC 2	2	Study of Indian Society	5	3	20	80	100	3
III	CSOCDSC 3	3.1	Indian Social Thinkers	5	3	20	80	100	3
	CSOCSEC 1	3.2	Personality Development and Communication Skills	2	2	10	40	50	2
IV	DSOCDSC 4	4.1	Study of Western Sociological Thought	5	3	20	80	100	3
	DSOCSEC 2	4.2	Health and Sanitation	2	2	10	40	50	2
V	ESOCDSC 5	5.1	Rural Development in India	4	4	20	80	100	3
	ESOCDSE 1	5.2(a) 5.2(b)	Urban Society in India or Social Demography	4	4	20	80	100	3
	ESOCSEC 3	5.3	Sociology of Tourism	2	2	10	40	50	2
VI	FSOCDSC 6	6.1	Basics of Social Research	4	4	20	80	100	3
	FSOCDSE 2	6.2(a) 6.2(b)	Current Social Problems or Social Welfare in India	4	4	20	80	100	3
	FSOCSEC 4	6.3	Society, Mass Media and Communication	2	2	10	40	50	2
				44	36				

DSC: **Discipline Specific Course**

DSE: **Discipline Specific Elective**

SEC: **Skill Enhancement Course**

I - SEMESTER – DSC - 1

B. A. SOCIOLOGY

PRINCIPLES OF SOCIOLOGY

Objectives:

It is an Introductory Paper, which intends to:

→ Make the students to acquaint with the Basic Concepts and Principles of Sociology.

→ To understand the Dynamics of Sociology

→ To study the Human Interactions and Relationships

Unit-I Introduction

1. Meaning, Definitions and Characteristics of Sociology
2. Origin and Development of Society
3. Significance of Sociology
4. Sociological Perspectives

Unit-II Basic Concepts of Sociology

1. Society and Community: Meaning and Characteristics, Elements of Community
2. Social Groups- Definition, Features and Types
3. Status and Role- Meaning and Types
4. Social Institution and Association: Meaning, Characteristics and Types

Unit-III Social Interaction and Process

1. Meaning and Characteristics of Social Interaction
2. Types of Social Process: Cooperation, Competition, Conflict, Accommodation, Assimilation, Isolation
3. Difference Between Competition and Conflict
4. The Role of Social Process in Social Life

Unit-IV Culture and Socialization

1. Culture - Meaning, Characteristics and Elements of Culture.
2. Cultural Process: Cultural Lag, Cultural Shock, Cultural Diffusion, Ethnocentric Culture, Xenophobia.
3. Socialization- Meaning, Characteristics, Stages of Socialization, Agencies of Socialization and Its Importance
4. Social Stratification and Mobility: Meaning, Characteristics, Forms of Stratification - Caste and Class

Unit-V Social Change and Social Control

1. Social Change: Meaning, Definitions and Characteristics
2. Factors of Social Change: Geographical, Biological, Cultural and Technological Factors
3. Social Control: Meaning, Definitions and Characteristics
4. Agencies of Social Control (Formal and Informal)

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II - SEMESTER – DSC - 2
B. A. SOCIOLOGY
STUDY OF INDIAN SOCIETY

Objectives:

→ To understand the Diversities and Unity in Indian Society.
→ To know the major segments in Society, the Traditions, Continuities and Changes taking place in Indian Society.
→ The Sociological Perspective on Indian society, presented in this paper will enable students to gain a better understanding of their own situation and region.

Unit- I Introduction

1. Features of Indian Society
2. Philosophical Base: Dharma, Purusharthas and Samskaras
3. Unity in Diversity
4. Factors of Continuity and Change

Unit- II Marriage, Family and Kinship

1. Meaning and Definitions of Marriage Family and Kinship
2. Marriage among Hindus, Muslims, and Christians
3. Types of Family: Joint Family, Nuclear family, Matriarchal and Patriarchal Family
4. Recent Trends in Marriage and Family, Legislations

Unit III Caste System in India

1. Meaning and Features of Caste System
2. Functions of Caste System
3. Role of Caste in Modern India- Merits and Demerits
4. Changing Aspects of Caste, Causes for Changes

Unit IV Other Backward Classes and Minority

1. Meaning and Characteristics of OBC's
2. Backward Class Movements
3. Constitutional Measures and Welfare Programmers of OBC's
4. Religious Minority: Muslims and Christians

Unit V Scheduled Castes and Scheduled Tribes

1. Meaning and Nature of SC's and ST's
2. Problems and Challenges of SC's
3. Problems and Challenges of ST's
4. Constitutional Measures and Welfare Programmes for SC's and ST's

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III - SEMESTER – DSC - 3
B. A. SOCIOLOGY
INDIAN SOCIAL THINKERS

Objectives:

→ To understand the nature of Development of Social Thought.

→ To get awareness about the Indian Thinkers, Sociologists and their Contributions.

→ To make the students to understand the Social Ethics of Indian Social Thought.

Unit- I Introduction

1. Meaning Definitions and Nature of Social Thought
2. Development of Social Thought
3. Importance of Social Thought

Unit- IV Pioneers of Social Thought

1. Rajaram Mohan Roy: Views of Brahma Samaj and Social Reforms
2. Education as a Means of Social Development
3. Jyotibha Pule: Welfare of Weaker Sections
4. Swami Vivekananda: Upliftment of Youths and Poor

Unit- II Mohandas Karamchand Gandhi

1. Gandhi's Concept of Sarvodaya

2. Gandhi's views on Man Kind

3. Truth and Non-Violence

4. Gandhian concept of Rural Reconstruction, Khadi and Village Industries

Unit- III Dr. Babasaheb Ambedkar

1. Brief sketch of Dr. B. R. Ambedkar
2. Views on Caste in India
3. Untouchability and Eradication
4. Ambedkar's Contribution to the Constitution of India

Unit- V Pioneers of Indian Sociology

1. G. S. Ghurey: Caste and Race, Rural - Urban Community

2. A. R. Desai: Marxist Approach to Sociology

3. M. N. Srinivas: Sanskritization, Dominant Caste

4. Irawati Karve: Kinship Organization

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III - SEMESTER – SEC - 1
B. A. SOCIOLOGY
PERSONALITY DEVELOPMENT AND COMMUNICATION SKILLS

Objectives:

→ To help the students in building Interpersonal and Communication Skills
→ To enhance team building and time management Skills
→ Make use of techniques for Self-Awareness and Self-Development.

Unit-I Personality Development

1. Meaning and Definition of Personality
2. Determinants of Personality: Physical, Intellectual Emotional, Social and Cultural, Heredity and Environment
3. Importance of Personality Development

Unit-II Skills of Personality Development

1. "Self"- Identity and Socialization, Emotional Intelligence Importance and its Application in Social Relationships.
2. Leadership: Meaning, Characteristics, Types and Leadership skills
3. Career Planning in Personality Development

Unit- III Communication Skills

1. Process of Communication: Verbal, Non-Verbal, Public Speaking.
2. Importance of Effective Communication, Barriers of Communication, Overcoming the Barriers
3. Facing Personal Interview, Group Discussion, Public Speaking, Presentation Skills

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IV - SEMESTER - DSC- 4
B. A. SOCIOLOGY
STUDY OF WESTERN SOCIOLOGICAL THOUGHT

Objectives:

→ To understand the basics of Western Sociological Theories
→ To aware about Western Sociological Thinkers and their Contributions
→ To make the students to understand the Methodology of Social Sciences

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Unit- I Auguste Comte

1. Positivism and Hierarchy of Sciences
2. Law of Three Stages of Human Development
3. Social Statistics and Social Dynamics
4. Religion of Humanity

Unit- II Emile Durkheim

1. Social Facts
2. Division of Labor in Society
3. Rules of Sociological Methods
4. Theory of Suicide

Unit- III Herbert Spencer

1. Theory of Social Evolution
2. Organic Analogy
3. Types of Society
4. Social Darwinism

Unit- IV Max Weber

1. Bureaucracy and Authority
2. Protestant Ethics and Spirit of Capitalism
3. Social Action and Types
4. Ideal Types

Unit- V Other Thinkers

1. Karl Marx : Class Struggle
2. Lewis A. Coser: Conflicts and Social Change
3. **C**harles H. Cooley : The Theory of looking Glass Self
4. George H. Mead: Self and Significant Others

References:

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IV - SEMESTER – SEC - 2
B. A. SOCIOLOGY
HEALTH AND SANITATION

Objectives:

→ To Sensitize the students to Health related Issues and Sanitation
→ To make the students aware of Sanitation conditions in India
→ To understand the Social aspects of Health and Sanitation

Unit-I Health as a Social System

1. Concept of Health and Wellbeing
2. Scope and Significance of Sociology of Health and Sanitation
3. Socio-Cultural Determinants of Health

Unit-II Health and Diseases

1. Diseases: Chronic and Other Diseases
2. Health Policies In India
3. Measures to Control Diseases

Unit-III Health and Sanitation in India

1. Social Construction of Hygiene and Sanitation
2. Problems and Challenges of Environmental Sanitation in India
3. Sulabh Sanitation Movement, Sanitation Policies and Programmes, Swach Bharat Mission (Abhiyan)

Activity: Field Visits and Activities related to Environmental Issues

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V - SEMESTER – DSC - 5
B. A. SOCIOLOGY
RURAL DEVELOPMENT IN INDIA

Objectives:

→ To understand the nature of Rural Development in India.
→ To understand the changing nature of Land Tenure System and Land Reforms.
→ To Understand the Panchayat Raj System in India
→ To understand the nature of Rural Development Programmes.

Unit- I Introduction

1. Meaning, Nature and Significance of Rural Development
2. Objectives of Rural Development in India
3. Land Tenure, Agrarian Relations Land Reforms, and Social Changes
4. Green Revolution , White Revolution , Red Revolution, Yellow Revolution, Blue Revolution: Objectives and Achievements

Unit- II Rural Community

1. Characteristics of Rural Community
2. Rural Problems: Rural Poverty, Rural Unemployment,
3. Rural Health and Sanitation
4. Indebtedness: Causes and Effects, Farmer's Suicide

Unit- III Peasant Movements in India

1. Meaning and Nature of Peasant Movements
2. Bardoli Satyagraha, Telangana Movement and Naxabari Movement
3. Peasant Movements in Karnataka: Mahadayi, Naragunda Bandaya, Kaveri
4. Impact of Peasant Movement.

Unit- IV Panchayat Raj System and Rural Development

1. Constitution of Gram Panchayat,Taluk Panachayat, and Zilla Panchayat
2. Panchayat Raj: Objectives, Functions and Its Duties
3. People's Participation and Women's Participation in Governance
4. Role of Personnel in Rural Development-Village Level Worker(VLW) Adyaksh and Upadyekshas, Grama Sevak(GS), Block Level Development Officers(BDO) and District Level Officers(CEO)

Unit- V Rural Development Programmes

1. Agencies of Rural Development – Govt. and NGO's
2. Programs of Rural Development in India MGNREGA, Drinking Water and Sanitation, Swacha Bharat, SHG'S, Akshara Dasoha, National Rural Livelihood Mission
3. LPG, GATT, WTO
4. Impact of Globalization on Rural Society

Activity: Field Exposure to Villages and Conducting Surveys

References:

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V - SEMESTER – DSE - 1
B. A. SOCIOLOGY
URBAN SOCIETY IN INDIA

Objectives:

→ To Provide Sociological understanding of Urban Society in India.

→ To understand about the Evolution of Cities and Urban Communities.

→ To make the students aware of Urban Problems in India

→ To understand Urban Planning and Urban Development

Unit- I Introduction to Urban Society in India

1. Meaning and Characteristics of Urban Society
2. Significance of Study of Urban Life
3. Types of Cities
4. Urban Development in Ancient and Medieval Periods

Unit- II Cities in India

1. History and Growth of Cities in India
2. Factors for the Growth of Cites
3. Metropolitan and Mega Cities: Meaning and Characteristics
4. Growth of Metropolitan and Mega Cities in India

Unit- III Urbanization in Modern India

1. Meaning and Nature of Urbanization
2. Rural-Urban Migration
3. Factors Responsible for Rapid Urbanization
4. Consequences of Over Urbanization and its Measures

Unit- IV Urban Problems in India

1. Problems of Housing, Slums and Sanitation
2. Urban Crimes, Drug Addiction
3. Water Supply and Transportation
4. Environmental Problems: Pollution and its Effects, Remedies for Environmental Problems

Unit- V Urban Planning and Development

1. Urban Development and Its Objectives
2. Urban Policy and Urban Development Programmes
3. Urban Governance and its Role
4. Challenges of Urban Management

- **Activity**: Field Visits to study the structure, Planning and Development of various Cities

References:

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V - SEMESTER – DSE - 2
B. A. SOCIOLOGY
SOCIAL DEMOGRAPHY

Objectives:

→ To understand about the Nature and Scope of Demographic Studies
→ To know about the Changing Trends of Indian Population
→ To know about the Family Welfare Programmes and Schemes in India

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Unit- I Introduction

1. Origin and Development of Demography
2. Meaning, Nature and Scope
3. Importance of Social Demography

Unit- II Components of Population Growth

1. Fertility
2. Mortality
3. Migration

Unit- III Theories of Population Growth

1. Malthusian Theory
2. Optimum theory
3. Theory of Demographic Transition

Unit- IV Population Growth

1. Trends of World Population Growth
2. Trends and Patterns of Population Growth in India
3. Causes and Consequence of Population Growth in India

Unit- V Population Control

1. History of Family Planning Programmes
2. Family Welfare Programmes
3. Population Policy- 2000

References:

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V - SEMESTER – SEC - 3
B. A. SOCIOLOGY
SOCIOLOGY OF TOURISM

Objectives:

→ To provide the basic understanding of Tourism and its Social Dimensions.
→ To Study the impact of Tourism on Society and Culture.
→ To Provide knowledge of Tourism, Social aspects of Tourism and its Social Dimensions
→ Understanding Tourism as a Socio-Cultural and Economic force in Social Development
→ Motivation to choose a career in Tourism Management

Unit- I Introduction

1. Tourism; Meaning and Definitions
2. Sociological Perspectives of Tourism,
3. Significance of Sociological Tourism

Unit-II Tourism Industry in India

1. Types of Tourism; Eco Tourism, Health Tourism, Religious Tourism, Educational Tourism.
2. Tourism in India- Opportunities
3. Policies of Tourism in India

Unit-III Tourism and Social Change

1. Socio-Cultural Impact of Tourism on Society
2. Tourism and Cultural Exchange
3. Development of Tourism, Sociological factor in Tourist Motivation, Motivating Locals for Tourism

Activity: Visiting Historical places and Preparing Report

References:

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VI - SEMESTER – DSC - 6
B. A. SOCIOLOGY
BASICS OF SOCIAL RESEARCH

Objectives:

→ To understand the Importance of Social Research in Social Science
→ To know about the Research Procedure
→ Make the students to understand, Report Writing and Application of Basic Statistics
→ To understand the Application of Computers in Social Research

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Unit- I Introduction

1. Social Research : Meaning and Definition
2. Importance of Research in Social Sciences
3. Qualities of Researcher
4. Relationship between Theory and Research

Unit- II Research Procedure

1. Stages of Social Research
2. Research Design
3. Report Writing
4. Reference and Bibliography

Unit- III Data Collection

1. Primary Data: Questionnaire, Interview
2. Secondary Data
3. Qualitative and Quantitative Data

Unit- IV Use of Statistics in Social Research

1. Meaning and Definitions of Statistics
2. Classification and Tabulation,
3. Graphical Presentation of Data (Graphs and Diagrams)
4. Measures of Central Tendency : Mean, Median, Mode

Unit- V Computer Application in Social Research

1. Characteristics of Computers
2. Use of Computers in Social Research
3. Microsoft Office: Word, Excel and Power Point Presentation (PPT)
4. Need of Internet : e-Library, Websites and Web Browsers

Activity: Preparing field Survey Report Making Small Presentations.

References:

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VI - SEMESTER – DSE - 2
B. A. SOCIOLOGY
CURRENT SOCIAL PROBLEMS

Objectives:

→ To understand about the Nature of Social Problems.
→ To understand the Nature and Causes of Changing trends of Crimes in India.
→ To understand the Nature of Vulnerable Problems of Life.

Unit- I Introduction

1. Meaning, Definition and Nature of Social Problems
2. Causes and Consequences of Social Problems
3. Social Organization and Disorganization
4. Characteristics of Social Disorganization

Unit- II Social Disorganization Issues and Problems

1. Crime and Delinquency- Meaning, Causes and Consequences
2. Types of Crime
3. Changing Aspects of Crime and Criminals: White Collar Crime, Criminalization of Politics and Communalism
4. Measures to Control Crime

Unit- III Youths, Children and Aged

1. Youth Unrest, Youth and Drug Addiction
2. Juvenile Delinquency
3. Child Abuse and Child Labour
4. Problems of Aged

Unit- IV Corruption, Terrorism

1. Corruption: Meaning and Types
2. Causes and Consequences of Corruption
3. Terrorism: Meaning, Causes and Effects
4. Measures to Control Corruption and Terrorism

Unit- V Problems of Women and Dalits

1. Domestic Violence, Dowry
2. Rape and Sexual Abuse
3. Female Foeticide and Infanticide
4. Atrocities on Untouchables

References:

- Ahuja Ram (1998): Social Problems in India. Rawat Publication, Jaipur.
- Davis James (1970): Social Problems Enduring Major Issues and Change, New York: Free Press.
- Elliot and Merril (1950): Social Disorganization. New York: Harper and Brothers.
- Gill SS (1998): The Pathology of Corruption. New Delhi: Harper Collin Publishers.
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VI - SEMESTER – DSE - 2
B. A. SOCIOLOGY
SOCIAL WELFARE AND SOCIAL POLICY IN INDIA

Objectives:

→ To understand the Basic Concepts in Social Welfare
→ To study the different Welfare Programmes and Policies in India
→ To understand the process of Social Change and Development through Social Welfare.

Unit -I Introduction

1. Meaning, Definition and Importance of Social Welfare
2. Concepts - Welfare State, Re-distribution, Democracy, Accountability and Transparency
3. Social Welfare Needs: Compulsory Primary Education; Full-employment; Health Care

Unit –II Welfare of Disadvantage Groups

1. Welfare of Scheduled Castes
2. Welfare of Scheduled Tribe
3. Welfare of Other Backward Classes
4. Welfare of Minorities

Unit – III Women and Child Welfare

1. National Health Policy and Programmes for Women
2. Family Welfare Programmes
3. National Policy for Children
4. Welfare Policy for Elderly

Unit –IV Youth and Labour Welfare

1. National Youth Policy
2. Youth Welfare Programmes; Youth and Sports
3. Youth Empowerment and Employability
4. Labour Welfare Programmes

Unit –V Social Welfare and Development

1. Social Welfare and Social Legislations
2. Barriers to Social Welfare in India; Civil Society
3. Agencies of Social Welfare – Role of Government and Non-government Organizations in Social Welfare
4. Central Social Welfare Board and State Social Welfare Board

References:

- Ahuja, Ram. 2001. *Social Problems in India*. Jaipur: Rawat Publications.
- Chowdhry, P.D. 1983. Social Welfare Administration. Delhi: Atma Ram Sons.
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- Talwar, P. P., & Goel, O. P. 1990. *Non-Governmental Organisations for Greater Involvement in Health and Family Welfare Programmes in India*. New Delhi: National Institute of Health& Family Welfare.
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VI - SEMESTER – SEC - 4
B. A. SOCIOLOGY
SOCIETY, MASS MEDIA AND COMMUNICATION

Objectives:

→ To create interest among students to acquire knowledge about Mass Media and Communication.

→ To provide a Sociological Perspective on the role of Mass Media and Communication in Indian Society.

→ To develop the Communicative Ability of the students in Speaking, Reading and Writing Skills.

→ To know the role of Communication and Mass Media in the Development of Society.

Unit – I

Introduction

1. Mass Media: Concept, Definition, Characteristics
2. News Paper, Magazines, Radio, Television and Cinema
3. Social Responsibility of Mass Media

Unit – II

Communication

1. Communication**:** Definition, Characteristics
2. Functions and Forms of Communication
3. Process of Communication, Barriers to Communication

Unit- III Mass Media, Communication and Social Change

1. Role of Mass Media in Social Change.
2. Information and Communication Technology (ICT), Computer, Internet
3. Role of ICT and Its Impact on Society

Activity: Preparing News Report of Various Functions in the College.

References:

- Graham Murdock. (1975). *The Sociology of Mass Communications and Sociological Theory.* The Australian and New Zealand Journal of Sociology, Volume 11, No. 2. Sage.
- Allan, Wells. (1979), *Mass Media and Society.* Mayfield, California.
- Denis Mcquil. (1969), *Towards a Sociology of Mass Communication*. Macmillan, London.
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EXAMINATION PATTERN **B. A. Sociology CBCS**	
PAPERS	**QUESTION PAPER PATTERN**
Theory Paper – **DSC and DSE** **80 Marks**	❖ Theory Paper has Three Parts. ➢ Part – A 4×5=20 ➢ Part – B 3×10=30 ➢ Part – C 2×15=30
Internal Assessment **DSC and DSE** **20 Marks**	❖ Two (2) Internal Assessment Tests ➢ 1st Test 04 Marks ➢ 2nd Test 10 Marks
	❖ Attendance- 75 % Compulsory ➢ 90% & above: 3 marks ➢ 80% - 89% : 2 marks ➢ 75% - 79% : 1 marks
	❖ Assignments - One (1) ➢ 3 Marks
	❖ Surprise Tests, Seminars; Group Discussions, etc.
Theory Paper –SEC **40 Marks**	❖ Theory Paper has Two Parts. ➢ Part – A 4×5=20 ➢ Part – B 2×10=20
Internal Assessment **SEC** **10 Marks**	One Test for 10 Marks
Duration of the Theory Paper – DSC and DSE	❖ Three (03) Hours
Duration of the Theory Paper – SEC	❖ Two (02) Hours

Question Paper Pattern for DSC and DSE

B. A. Examination Month / Year

(Scheme CBCS)

SOCIOLOGY

Title of the Paper

Time: 3 Hours **Max. Marks: 80**

Instruction: 1) Answer All the Section

Part-A

Answer Any Four of the Following **4×5=20**

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Part-B

Answer Any Three of the Following **3×10=30**

7. _____
8. _____
9. _____
10. _____
11. _____

Part-C

Answer Any Two of the Following **2×15=30**

12. _____
13. _____
14. _____
15. _____

Question Paper Pattern FOR SEC

B. A. Examination Month / Year

(Scheme CBCS)

SOCIOLOGY

Title of the Paper

Time: 2 Hours **Max. Marks: 40**

Instruction: 1) Answer All Section

Part-A

Answer Any Four of the Following **4×5=20**

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Part-B

Answer Any Two of the Following **2×10=20**

7. _____
8. _____
9. _____

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

HISTORY & ARCHAEOLOGY

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

UG CBCS SYLLABUS IMPLEMENTATION

Sl. No	Course	Academic Year of Implementation
1	FIRST SEMESTER	2020-2021 and onwards
2	SECOND SEMESTER	
3	THIRD SEMESTER	2021-2022 and onwards
4	FOURTH SEMESTER	
5	FIFTH SEMESTER	2022-2023 and onwards
6	SIXTH SEMESTER	

Department of History & Archaeology Patterns Schemes of Examination and Credits for B.A Programme

Semester	Code/ course	Paper No	Paper	Teaching Hrs/Week	Duration of Exams Hrs	Exams		Total	Credit Values
						I A	Exam		
I	DSC 1	1	History of India (Early Times to Kushanas)	05	03	20	80	100	03
II	DSC 2	2	History of India (From Gupta to 1206 AD.)	05	03	20	80	100	03
III	DSC 3	3	History of India –1206 – 1526 A.D.	05	03	20	80	100	03
	SEC 1	4	Architecture of karnataka	02	02	10	40	50	02
IV	DSC 4	5	History of India- 1526 -1707 A.D.	05	03	20	80	100	03
	SEC 2	6	Museum Exhibition skills Development	02	02	10	40	50	02
V	DSE 1	7	1)History of India - British Rule -1707- 1947 A. D. - Paper I Compulsory	04	04	20	80	100	04
		7.1	2) History and Culture of Karnataka (From Early to 1336 A.D.) OR 3)History of Modern Europe (1450 -1914 A.D.) OR 4) History of Tourism and Heritage	04	04	20	80	100	04
	SEC 3	8	Information Technology in Tourism	02	02	10	40	50	02
VI	DSE 2	9	1)History of Modern India- Paper I Compulsory	04	03	20	80	100	04
		9.1	2) History of Modern Karnataka 1336- 1956 A.D OR 3)History of Modern Europe (1914-1990 A.D.) OR 4) History of Modern Tourism	04	03	20	80	100	04
	SEC 4	10	Guiding Skill & Personality Development	2	2	10	40	50	2
				44	36				36

RANI CHANNAMMA UNIVERSITY, BELAGAVI
HISTORY and ARCHAEOLOGY
B. A – I Semester
History of India (From Early Times to Kushanas)

Teaching Hours: 5 hrs per week 16x5 = 80hrs

Unit-I Reconstructing Early Indian History

A) Geographical Features of India and Its Impact on History.
B) Sources of Information: Archaeological and Literary Sources.
C) Important Sites of Pre and Proto History :
Pre-Historic sites: Bhimbetak, Sangankallu, Kibbanhalli, Renugunta and Tinnvelly.
Proto-Historic sites: Aihole, Pattadakal, Ajanta, Mahabalipuram, Boudh Gaya.

Unit-II Stone Ages

A) Palaeolithic Age –Main Features and Important Sites.
B) Neolithic Age –Main Features and Important Sites.
C) Megalithic Age-Main Features and Distribution of South Indian Burials.

Unit-III Civilization and Culture of Ancient India

A) The Harappan Civilization Discovery and Main Features, Recent Excavation and Decline.
B) The Aryan Culture: Early Vedic and Later Vedic Period: Its Society, Polity, Economy, Religion and Literature.
C) New Religion-Jainism and Buddhism: Mahaveer and Goutam Buddha - Life, Teachings, Spread, Growth, Contributions and Decline.

Unit-IV Greek Invasion and Kingdoms of Northern India.

A) Alexander's Invasions: Causes, Course and Impacts.
B) The Mouryan Empire: Origin and Foundation of Chandragupta Mourya, Ashoka and His Early Life, Dhamma, Spread of Buddhism, Inscriptions, Administration and Growth of Mouryan Art and Architecture.
C) The Kushana's: Kanishka and Kushana's Contributions.

Unit V Map Topics

1. The extent of Harappan Civilization with important sites.
2. The location of Ashokan Inscriptions

Reference Books:

1 Thapar Romila : *History of India Vol-I,* Penguin Books India Pvt.Ltd., New Delhi, 2000.

2 Majumdar R.C. : *Ancient India,*MotilalBanarsidas Delhi, Reprint, 2017

3. Lunia B.N. : *Evolution of Indian Culture,* Lakshmi Narayan Agarwal, Agra, 1960.

4. Jha D. N. : *Ancient India- An Introductory,*Rawat Publishers, Jaipur, 1977.

5. Khurana K.L : *Ancient India,* Lakshmi Narayan Agarwal, Agra, 2011.

6. Das S.K. : *The Economic History of Ancient India,* Vohra Publishers, Allahabad, 2007.

7. Sharma R.S. : *Indian Feudalism,*Laxmi Publications, New Delhi, 2008.

8. Sharma R.S. : *Material Culture and Social Formations in Ancient India,* Macmillan India Ltd, Delhi, 2007.

9. Sharma L.P. : *History of Ancient India,*Konark Publishers Pvt.Ltd, Dehli, 2008.

10. Sharma R.S. : *India's Ancient Past,* Oxford University Press, New Delhi, 31st Impression 2018.

11. Bashyam A.L. : *The Wonder that was India, Vol-I,* Picador Pan Macmillan Publisher Ltd, London, 2004.

12. Bridget & Raymond Allchin :*The Rise of Civilization in India and Pakistan,* Cambridge University Press, Foundation Books Dehli, First South Asia Edition 2011.

RANI CHANNAMMA UNIVERSITY, BELAGAVI

HISTORY and ARCHAEOLOGY

B.A- II Semester

History of India (From Gupta Period To 1206 AD)

Teaching Hours: 5 hrs per week 16x5 = 80hrs

Unit-I Reconstruction of Ancient Indian History.

A) Sources- Archaeological and Literary Sources

B) The Gupta's Empire: Samudragupta and Golden Age of Gupta's - Literature, Religion, Economy, Science-Technology and Art and Architecture.

c) Vardhan Dynasty : Harshavardhana- Conquests, Buddhism and Education

Unit-II Empires in Deccan.

A) Early Chalukya's of Badami : Early Rules, Pulakeshi-II and their Cultural Contributions Special Reference to Art and Architecture.

B) Rastrakuta's of Malakheda- Dhruva, Govinda-III and Amoghavarsha Nrapatunga.

C) Cultural Contributions of Rastrakutas: Administration, Religion, Literature, Education and Art and Architecture.

Unit -III Tamil Kingdoms in South India.

A) The Pallava's :Mahendravarma-I, Narasimhavarm-I.

B)The Chola's:Rajraj Chola-I, RajendraChola-I and Local Self Government of Chola's

C) Growth of Dravidian Architecture with Special Reference to Pallava's and Chola's Period.

Unit-IV Muslim Invasion and Indian Philosophy.

A) Arabs and Afghan Invasions: Mahammad Bin Kashim, Mahammad Ghazni and Mahammad Ghor – Invasion on India and its Impacts.

B) Indian Philosophy: Advaita, Dwaita, Vishistadwaita

C) Veerashaiva :Basaveshwar and Vachana Literature.

Unit-V Map Topics

1. The Gupta Empire under Samudragupta,
2. The Chalukya's Empire under Pulakeshi-II.
3. **Places of historical importance –**

1.Taxila 2. Pataliputra 3.Nalanda 4. Kanuoj 5. Ellora 6.Badami 7.Pattadakal 8. Kanchi 9.Tanjore 10.Sourastra

Reference Books:

1 ThaparRomila : *History of India Vol-I,* Penguin Books India Pvt.Ltd, New Delhi, 2000.

2 Majumdar R.C. : *Ancient India,*MotilalBanarsidas Delhi, Reprint, 2017

3. Lunia B.N. : *Evolution of Indian Culture,* Lakshmi Narayan Agarwal, Agra, 1960.

4.Jha D. N. : *Ancient India- An Introductory,*Rawat Publishers, Jaipur,1977.

5. Khurana K.L : *Ancient India,* Lakshmi Narayan Agarwal, Agra, 2011.

6. Das S.K. : *The Economic History of Ancient India,* Vohra Publishers, Allahabad, 2007.

7. Sharma R.S. : *Indian Feudalism,*Laxmi Publications, New Delhi, 2008.

8. Sharma R.S. : *Material Culture and Social Formations in Ancient India.* Macmillan India Ltd, Delhi, 2007.

9. Sharma L.P. : *History of Ancient India,*Konark Publishers Pvt.Ltd, Dehli, 2008.

10. Sharma R.S. : *India's Ancient Past,* Oxford University Press, New Delhi, 31st Impression 2018.

11. Bashyam A.L. : *The Wonder that was India, Vol-I,* Picador Pan Macmillan Publisher Ltd. London, 2004.

12 NilkantaSastri K.A. :*The Illustrated History of South India,* Oxford University Press New Delhi, 2009

13. Bridget & Raymond Allchin :*The Rise of Civilization in India and Pakistan,* Cambridge University Press, Foundation Books Delhi, First South Asia Edition 2011.

RANI CHANNAMMA UNIVERSITY, BELAGAVI

HISTORY and ARCHAEOLOGY

B.A- III Semester

History of India (From 1206 To 1526 AD)

Teaching Hours: 5 hrs per week 16x5 = 80hrs

Unit-I Sultanate of Delhi

A) Sources: Literary and Archaeological Sources

B) The Slave Dynasty : Qutabuddin Aibak, Iltuthmish, Raziya and Balban

C) The Khilji and Tughalaq Dynasty's: Allauddin khilji- His Conquests and Reforms. Mahammad-Bin-Tughalaq and Firoz Shah Tughalaq their Reforms.

Unit-II Cultural Contributions of Delhi Sultanate

A) Administration and Socio-Economic Life

B) Education and Literary System

C) Indo-Islamic Art and Architecture

Unit-III The Vijayanagar and Bahumani Kingdoms

A) The Vijayanagar Empire: Devaroy II–Krishnadevaroy and Their Contribution - The Battle of Talikot and Its Effects

B) Contributions of Vijayanagar – Administration, Religion, Literature, Socio-Economic and Art and Architecture.

C) The Bahumani Kingdoms: Mahammad Gawan: His Administration and Art and Architecture.

Unit-IV The Adilshahi's Kingdom and Bhakti Movement.

A)Adilshahi's of Bijapur :Mahamad AdilShahi, Ibrahim Adilshahi-II, Contribution to Literature and Art and Architecture.

B) Bhakti Cult: Kabir, Gurunanak, Meerabhai.

C) Sufi Saints: Moyinuddin Chisti, Nizamuddin Aulliya and Bandenawaz

Unit-V Map Topics

A) The Khilji empire under Alla-Ud-Din-Khilji

B) The Vijayanagar Empire under Krishnadevaroy

C) Places of Historical Importance-1.Delhi 2.Agra 3.Lahore 4.Ranathambor 5.Chittor 6.Doulatabad 7. Hampi 8. Bijapur 9. Bidar 10. Gulbarga .

Reference Books:

1 Habib Irfan (Ed) : *Medieval India, (1200-1750)* Oxford University Press, New Delhi, 1998.

2 Chandara Satish : *Medieval India from Sultanate to Mughals,*HarAnand Publications, Delhi, 2007.

3. Mehta J.L. : *Advance Study in the History of Medieval India, Vol- 1(1000-1526),* Sterling Publishers Pvt. Ltd, New Delhi, 2009.

4.Habib Mohammad : *A Comprehensive History of India - The DehliSultanat Vol-V,* People's Publishing House, Delhi.1992

5. Khurana K.L : *Medieval India,* Lakshmi Narayan Agarwal, Agra, 2009.

6. Chandara Satish: *History of Medieval India,* Orient Black Swan Pvt.Ltd. Hydrabad, 2007.

7. Hassan Nurul S : *Religion, State and Society in Medieval India,* Oxford University Press, New Delhi, 2008.

8. Chandara Satish : *Essays on Medieval Indian History,* Oxford University Press, New Delhi, 2003.

9. Sharma L.P. : *History of Medieval India 1000-1740,* Konark Publishers Pvt.Ltd, Delhi, 1996.

10. Sharma R.S. : *India's Ancient Past.* Oxford University Press, New Delhi, 31st Impression 2018.

11. Bashyam A.L. : *The Wonder that was India, Vol-I,* Picador Pan Macmillan Publisher Ltd., London, 2004.

12. Nazim Khalil Ahmed :*Religion and Politics in India during the Thirteenth Century,* Oxford University Press, New Dehli, 2002.

13. Mahajan V.D. :*History of Medieval India Saltanate Period and Mughal Period,* S. Chand & Company Ltd., New Dehli, 2012.

Department of History and Archaeology

SEC I . B.A – III Semester

Architecture of Karnataka

Teaching Hours : 2hrs per week 16 X 2= 3

Unit – I – Buddhist Architecture

a) General types of Buddhist Architecture-Stupas, Chaityas, Viharas
b) Ashokan period Buddhist Architecture in Karnataka
c) Shatavahana and Later period Buddhist Architecture in Karnataka

Unit – II- Hindu Architecture

a) Origin of Hindu Temples Styles –Nagara,Dravida,Vesara
b) Chalukyan and Rashtrakutas period Architecture and Sculptures
c) Hoysala Temple Architecture and Vijayanagar Monuments

Unit – III- Islamic Architecture

a) Origin of Islamic Architecture
b) Bahamani Architecture
c) Adilshahi Architecture

Reference Books:

1. Percy Brown : Indian Architecture (Buddhist and Hindu Period), Bombay-1971
2. Percy Brown : Indian Architecture (Islamic Period), Bombay- 1971
3. Srinivasan K.R: South Indian Temples ,New Delhi-1971
4. Dr. Rajashekara: Karnataka Architecture ,Dharavada-1985
5. Tippeswami P.R: Shilpakala Prapancha,bangaloore-1994

RANI CHANNAMMA UNIVERSITY, BELAGAVI

HISTORY and ARCHAEOLOGY

B.A- IV Semester

History of India (From 1526 To 1707 AD)

Teaching Hours: 5 hrs per week 16x5 = 80hrs

Unit-I Mughal Rule In India

A) Sources: Archaeological and Literary Sources

B) Foundation of Mughal Empire–Babar and Humayun:Their Achievements

C) The Rise of Afghans : Shershah Sur early career and administrative reforms.

Unit-II Mughal Imperial Period

A) Akbar: His Conquests, Rajput and Religious Policy

B) Jahangir and Shahajahan- Golden Age, Nurjahan

C) Aurangzeb's Deccan, Religion Policies and Decline of Mughal Empire

Unit-III Cultural Contributions of Mughal

A) Contributions of Administration, Art and Architecture and Paintings

B) Social Conditions: Women's Position, Education, Literature and Music

C) Economic Condition: Agriculture, Trade and Commerce, Irrigation, and Urbanization

Unit-IV Maratha Empire

A) Chatrapati Shivaji: His life and military achievements

B) Contribution of Shivaji's Administrative system

C) South Indian Dasa Movements :Kanakadas, Purandardas, Vyasaroy

Unit-V Map Topics

A)The Mughal empire under Akbar.

B) The Martha empire under Shivaji

C) Places of Historical Importance –

1. Shahjahanbad [Delhi] 2. Kabul 3. Fathepur Sikri 4. Agra 5.Shrinagar 6. Lahore 7. Aurangabad 8. Shivanerukote 9. Rayagad 10.Kaginele

Reference Books:

1 Habib Irfan : *Medieval India (1200-1750),* Oxford University Press, New Delhi, 1998.

2 Chandara Satish : *Medieval India from Sultanate to Mughals,*HarAnand Publications, Delhi, 2007.

3. Mehta J.L. : *Advance Study in the History of Medieval India- Mughal Empire (1526-1707) Vol- 2,* Sterling Publishers Pvt. Ltd. New Delhi.2009.

4.Athar Ali M. : *The Mughal Nobility under Aurangzeb,* People's Publishing House, Delhi,1992.

5. Khurana K.L : *Medieval India,* Lakshmi Narayan Agarwal, Agra, 2009.

6. Chandara Satish : *History of Medieval India,* Orient Black Swan Pvt. Ltd., Hydrabad, 2007.

7. Hassan Nurul S : *Religion, State and Society in Medieval India,* Oxford University Press, New Delhi, 2008.

8. Chandara Satish : *Essays on Medieval Indian History,* Oxford University Press, New Delhi, 2003.

9. Sharma L.P. : *History of Medieval India 1000-1740,*Konark Publishers Pvt. Ltd., Dehli,1996.

10. Sharma R.S. : *The Mughal Empire in India,* Lakshmi Narayan Agarwal, Agra, 2009.

11. Bashyam A.L. : *The Wonder that was India, Vol-I,* Picador Pan Macmillan Publisher Ltd., London, 2004.

12. Sharma R.S. : *The Crescent in India,* Lakshmi Narayan Agarwal, Agra, 2009.

13. Habib Irfan : *Akbar and His Time,* Oxford University Press, New Dehli, 2013.

14. Sarkar J. N. : *A Short History of Aurangzeb,* Orient Black Swan Pvt.Ltd., New Delhi, 2009.

15. Sarkar J. N. : *The Fall of the Mughal Empire, Volumes I-IV,* Orient Black Swan Pvt.Ltd., New Dehli, 2007.

16. Sarkar J.N. : *Shivaji and His Times*, Orient Black Swan Pvt.Ltd., New Dehli, 2010.

17. Qureshi IshtiaqHussain :*Administration of the Mughal Empire,* Low Price Publications, Dehli, 2004.

18. Desai Ranjeet : *Shivaji: The Great Maratha,* Harper Perennial, Delhi, 2017.

19. Richard John F : *The Mughal Empire,* Cambridge University Press, Delhi, 2016.

20. Mahajan V.D. :*History of Medieval India Saltanate period and Mughal period,* S. Chand & Company Ltd., New Dehli, 2012.

21. Smith V. A. : Akbar the Great Mughal, Create space Independent Publishers, 2015.

Department of History and Archaeology

SEC II . B.A – IV Semester

Museum Exhibition Skills Development

Teaching Hours: 2hrs per week 16 X 2= 32

Unit –I Museum Exhibition

a) Purpose and Ethics of Exhibition
b) Types of Exhibition
c) Case study of different Types of Exhibition

Unit –II Exhibition Planning's

a) Concept of development
b) Exhibition Design
c) Evaluation of Exhibition

Unit –III Museum Exhibition Skills

a) Ancillary exhibition
b) Techniques – Model Making
c) Photography, videography, etc.

Reference Books:

1. Dernie David : Exhibition Design , Newyork-2006
2. Michael Belcher : Exhibition in Museum, Washington (DC) -1991
3. T. Ambrose & C : Museum Basics , Routledge – 2012
4. Elizabeth Bogle : Museum Exhibition Planning and Design, Altimira-2013

RANI CHANNAMMA UNIVERSITY, BELAGAVI

HISTORY and ARCHAEOLOGY

B.A- V Semester

COMPULSORY PAPER-I History of India –British Rule 1707 To 1905

Teaching Hours: 4 hrs per week 16x4 = 64hrs

Unit-I Advent of European and Expansion of British Power

A) Advent of Europeans and Anglo-French Conflicts

B) Consolidation of Power: Robert Clive and Warren Hastings-Their Reforms and Foreign Policy

C) Lord Cornwallis Reforms

Unit-II British Power under Governor Generals

A) Lord Wellesley-His Subsidy Alliance

B) William Bentinck : His reforms

C) Lord Dalhousie: Reforms and Doctrine of Lapse

Unit- III New Revenue Systems and Indian Revolts

A) New Revenue Systems: Jamindari ,Raitwari, and Mahalwari.

B) The Great Revolt of 1857: Nature, Causes and Results

C) 1858 Queens Proclamation Act

Unit-IV Reforms of Viceroy's in India

A) Lord Litton: Domestic and Foreign Policy

B) Lord Rippan: Reforms and Foreign Policy

C) Lord Curzon: Reforms and Foreign Policy

Unit-V **Map Topics**

A) Mark the Important Places of Great Revolt 1857

B) Places of Historical Places-

1)Kolkata 2)Madras 3)Bombay4)Calicut 5) Surat6)Pandichery 7) Plassey 8) Baxar 9) Salbha 10) Shrirangpattan

Reference Books:

01. Majumdar R.C. ; *Advanced History of India,* Fourth Edition MacMillan Publication, New Delhi,1978
02. Mahajan V.D.; *History of Modern India* ,S Chand and Company Limited, New Delhi, 2006.
03. Roy M.K.; *Princely States and Paramount Power*, M.K. Books of India, New Delhi,1988
04. Raychaudari S.C.; *Social, Cultural and Economic History of India Modern Times*, Surjeet publications, Delhi, 1976

05. Bipin Chandra .; *Nationalism and Colonialism in Modern India*, Orient Blackswan Private Limited, New Delhi, 1981
06. Grover B.L and AlkaMehata.; *A New Look at on Modern Indian History*, (Revised Edition) S. Chand Publication New Delhi, 2016
07. Percival Spear, *Oxford History of Modern India (1740-1975),* Published by Clarendon Press in Oxford, 1965.
08. Sarkar Sumith.; *Modern India (1985-1947),*Mac Millan Publication, New Delhi,1989.
09. Desai A.R.; *Social Background of IndianNationalism*, SAGE Publication Pvt. Ltd.2016.
10. Hassan Imam ; *Indian National Movement*, Anmol Publication, Delhi, 1999
11. Gopal S.; *British Policy in India (1858 -1905),* Cambridge University Press, 2009
12. Srinivas M.N ;*Social Change in Modern India* , University of California Press,1969.
13. Mishr D.K.; *The Uniform and Division of India*, Lucent Publications,2016.
14. Seel Anil; *The Emergence of Indian Nationalism*, Cambridge University Press, 1971.
15. Tarachand; *Indian National Movement's Volumes* The university of Virginia,2009
16. Sharma L.P.; *Modern India,*Konark Publications Pvt.Ltd., Reprint ,2008.
17. Agarwal R.N.; *Indian National Movement and Constitutional Development*, S Chand and Company, 2005.
18. Khurana K.L.; *History of Modern India*, Ninth Revised Edition, Educational Publisher, Agra, 2009
19. Shivarudrswamy S.N.;*AdhunikBharatdaItihas (Kannada)*, PourasthyaPrakashanTipaturu-Mysore, 2009

RANI CHANNAMMA UNIVERSITY, BELAGAVI

HISTORY and ARCHAEOLOGY

B.A- V Semester OR

OPTIONAL PAPER-II: HISTORY AND CULTURE OF KARNATAKA

(FROM EARLY TO 1336A.D

Teaching Hours: 4 hrs per week 16x4 = 64hrs

Unit - I Sources and Pre-Historic Sites in Karnataka

A. Sources: Archaeological and Literary Sources
B. Geographical of Features of Karnataka
C. Pre and Proto History of Karnataka –Palaeolithic, Neolithic, Megalithic Cultures.

Unit - II The Early Rulers of Karnataka

A. Shatavahanas – Goutamiputra Shatkarni and their Cultural Contributions
B. The Kadambas: Mayur Varma and their Cultural Contributions.
C. The Gangas: Durvinita and their Cultural Contributions.

Unit – III The Deccan Kingdoms of Karnataka

A. The Chalukyas of Badami: Early Rulers and Pulakeshi –II and Cultural Contributions of Chalukyas.
B. Rashtrakutas: Dhruva - Govinda –III- AmoghvarshNrupatunga and their Cultural Contributions.
C. Chalukyas of Kalyana: Vikramaditya- VI and their Cultural Contribution:

Unit- IV The Kalachuris and Minor Dynasties of Karnataka

A. Kalachuris of Kalyana –Bijjaladeva,Basaveshwar, Akkamahadevi.
B. Hoysalas: Vishnuvardhana, Ballala –II and their Cultural Contributions
C. The Kadambas of Hanagal, The Sindhas of Yalaburgi and The Rattas of Savadatti and Their Contributions.

Unit – V Map Topics

A. The Chalukyan Empire under Pulakeshi II.
B. Places of Historical importance -

1.Sannati 2.Sanganakallu 3.Shravanabelagol 4.Vijayapur 5.Talakadu 6.Belur7.Kudalasangama 8 Ihole 9. Badami 10.Manyakheta

Reference Books:

01. Altekar A.S., Rashtrakutas and their times. Oriental Book Agency, Poona, 934,

02. Naik Ramesh and M. Kotresh., ChalukyaLekhanaSamputa, Prasaranga Kannada University. Hampi, 2008.

03. Chopra P.N Ravindran, History of South India (Ancient Medieval and Modern) Chand Publications,New Delhi, 2003.

04. George M. Moraes - The Kadambakula, A History of Ancient and Medieval Karnataka, Asian Educational Services, New Delhi. 1931,

05. ItihasDarshanas KarnatakaItihas Academy Bangalore. Volume No.1 to 30

06. TelagaviLaxman., Mauryas and Shatavahanas, Prasaranga Kannada University, Hampi, 2010.

07. Majumdar.R.C., History and Culture of the Indian People Vol., I- Macmillan Publication, New Delhi,1964.

08. Ramesh.K.V., Chalukyas of Vatapi,Agam Kala Prakashan Delhi, 1984,

09. NilakantaShastri K.A., A History of South India, Oxford University Press 1958.

10. Sheik Ali B., The Hoysala Dynasty, Prasaranga University of Mysore.1972,
11. ShilakanthaPattar,- Chalukyas of Badami, Prasaranga, Kannada University Hampi.2000,
12. S. Rajashekhara., TheChalukyas of Badami, Aryan Publications, International, 2016.

HISTORY AND ARCHAEOLOGY

B.A. V Semester OR

OPTIONAL PAPER– II : HISTORY OF MODERN EUROPE

(1450 -1914 A.D.)

Teaching Hours: 4 hrs per week 16x4= 64 hrs

Unit-I

A. Geographical Discoveries: – Causes Inventions and Results.
B. Renaissance-Meaning, Causes, Features and Renaissance in the field of Art, Literature and Science
C. Reformation Movement- Causes-Martin Luther, Counter Reformation and Results

Unit-II

A. French Revolution: – Causes Course and Results.
B. Napoleon Era- Conquests and Reforms.
C. Metternich Era:- Vienna Settlement, Concert of Europe.

Unit- III

A. 1830 and 1848 Revolutions of France and Europe
B. Second French Republic (1848-1852)
C. Second French Empire and Napoleon-III (1852-1870)

Unit-IV

A. Unification of Italy
B. Unification of Germany
C. Germany Empire (1871-1914)

Unit –V Map Topics:

A. Napoleon Conquests
B. Locate of Concert of Europe
C. Places of Historical Importance
   1) Paris 2) London 3) Vienna 4) Cape of Good Hope 5)Berlin6)Rome 7) Mascow8) Madrid 9) Constantinople 10) Alsace-Lorraine

Reference Books:

01. Edward Davis ; *Europe - A History*, Harper Perennial Publication, 1998.
02. Gokhale B.K.; *Modern Europe 1848 to 1960*, Philadelphia University, Jordan and Himalaya Publication, Bombay, 1987.
03. Fisher H.A.L.; *A History of Europe (2- Volumes)*, Fontana Publication, 1971.
04. Thomson David; *Europe Since Napoleon (First Edition)*, Penguin Books Limited, (UK), 1990.
05. Hazen Charles Downer ; *Europe Since 1815 Vol.-I*, Bell Publisher, 1909.
06. Edgar Swain James ; *A History of World Civilization*, published by McGraw Hill, New York, 1947.
07. Wall Bank and Taylor J.P.; *Civilization of Past and Present*, Harper Collins College Div Publication, 1992.
08. Taylor J.P.; *The struggle for mastery in Europe in 19th and 20th Century*, Publisher Oxford University Press, 1980.
09. Bames H.E.; *Intellectual History of Europe*, Publisher Prentice Hall, 1975.
10. Khurana K.L.; *History of Modern Europe (Ninth Edition)*, Educational Publishers, Agra, 2010.

HISTORY AND ARCHAEOLOGY
B.A. V Semester OR
OPTIONAL PAPER– I: History of Tourism and Heritage

Teaching Hours: 4 hrs per week 16x4= 64 hrs

Unit-I Definition and Sources of Tourism

A. Meaning and Definitions of Tourism

B. Sources of Tourism

C. Historical Evolution of Tourism

Unit-II Types and Services of Tourism

A. Types of Tourism-Historical, Cultural Tourism, Eco-Tourism etc.

B. Tourism Services-Travel agency, Tour Operators, Guides and Escorts

C. Transport-Road, Rail, Air & Water

Unit- III Tourist Destination and Fairs - Festivals

A. Important Tourist Destinations of Southern and Northern India, Incredible India

B. Tourism in Karnataka and its prospective "one state many worlds"

C. Fairs and Festivals- Cultural, National and Religious Festivals

Unit-IV Museums and Tourism in Karnataka

A. Museums as product of Tourism Historical, Tribal, Folk, Cultural and Natural History Museum.

B. K.S.T.D.C Policy, Karnataka Tourism Prospectus.

C. Tourism in Karnataka- Historical Sites, Hill Stations, Beaches, Bird and Wild life Sanctuaries

Unit-V: Map Topics:

A. Study Tour to World Heritage sites in India (any 1 or 2 sites per year)

B. Map questions- Important Tourist Places:1.Ajmer 2) Tirupati 3) Amritsar 4) Banaras 5) Goa 6) Nagarhole 7Hampi 8) Agra 9) Konark 10) Delhi 11) Calcutta 12) Bombay 13) Mount Abu 14Srinagar 15) Khajuraho.

Books for reference

1. History and Tourism (Kan. and Eng. Version) : K.S Vijaylakshmi
2. IGNOU study Material (Bachelor in Tourism Studies)
3. Bahratiya Pravasodyama : Dr.S.N Shivarudra Swami
4. Tourism products in India : T.C Gupta
5. ಭಾರತೀಯ ಪ್ರವಾಸೋದ್ಯಮ ಅಧ್ಯಯನ. ಡಾ॥ ಎಸ್.ಪಿ.ಸುರೇಬಾನಕಾರ ಮತ್ತು ಪ್ರೊ.ಸಿ.ಎಮ್. ಮುನ್ನೋಳಿ.

Department of History and Archaeology

SEC III . B.A – V Semester

Information Technology in Tousism

Teaching Hours : 2hrs per week 16 X 2= 32

Unit –I Computer and Information System

a) Internet, Www(world wide web), http(Hyper text transper protocol), Html (Hyper text markup language)
b) URL(Uniform Resource locator), DOS, Power Point
c) Role of Computer in travel and Tourism

Unit –II Map work

a) GPS (Global positioning system)
b) Calculating Distance on Map
c) Preparation of Charts of the Countries Information

Unit –III Procedure for Domestic and International Hotel Reservation

a) Documentation related with Hotel Reservation
b) Preparation of Hotel and Other Service Vouchers
c) Document Involved in Informing Sub – Agents for services

Reference Books :

1. James D.Foley : Computer Graphics
2. Kennet C.Loudon : E-commerce
3. Sanjiv Saxena : M.S.Office
4. Elliot D.Kapalan : Undestanding GPS

RANI CHANNAMMA UNIVERSITY, BELAGAVI

HISTORY and ARCHAEOLOGY

B.A- VI Semester

COMPULSORY PAPER-I : History of Modern India

Teaching Hours: 4 hrs per week 16x4 = 64hrs

Unit –I Socio-Religious Reform Movements of the 19th and 20th Century:

A. Brahmo Samaj- Raja Ram Mohan Ray. Arya Samaj – Dayanand Saraswati Swami Vivekanand- Ramkrishna Mission and Theosophical Society
B. Aligarh Movement- Sir Sayyed Ahmad Khan
C. Upliftment of Women and Social Reforms – Jyotiba Phule, Savitrbai Phule

Unit –II Indian Constitutional Developments

A. Act of 1909 and Act of 1919
B. Act of 1935
C. Indian Independence Act of 1947

Unit -III Backward Class and Indian National Movements:

A. Social Reforms of 20th Century: Chh. Shahu Maharaj, Dr.B.R. Ambedkar and Periyar Ramswamy
B. Freedom Movements Under the Moderates-1885 to 1905
C. Freedom Struggle from Extremities-1905 to 1919 and Mahatma Gandhiji- Indian National Movement

Unit-IV Partition of India and Economic Developments:

A. Mountbatten Plan- Partition of India-Princely States and Role of Vallbahi Patel
B. Jawaharlal Nehru Era – five years Plans-Economic Progress.
C. Indira Gandhi: Nationalizations of Banks and 20 Points Programme and Rajeev Gandhi :Panchayath Raj.

Unit V Map Topics:

A. Places of Princely States in India-

1. Kashmir 2.Mysore 3.Hydrabad 4.Gwalior 5.Travancore
6. Jaipur7.Baroda 8.Oudh 9. Kolhapur 10.Indore

B. Importance of Historical Places

1.Dandi 2. Aligarh 3. Chouri–Chaura 4.Lahore 5.Surat
6.Haripura 7. Calcutta 8. Banares 9. Champarannya 10. Belgaum.

Reference Books:

01. R.C. Majumdar - Advanced History of India
02. V.D. Mahajan - History of Modern India
03. M.K. Roy - Princely States and Paramount Power
04. Raychaudari - Social, Cultural and Economic History of India Modern Times
05. Bipin Chandra - Nationalism and Colonialism in India
06. Grover and Grover - A New Look at on Modern Indian History
07. Percival Spear - Oxford History of Modern India (1740-1975)
08. SumithSarkar - Modern India (1985-1947)
09. A.R. Desai - Social Background of Indian Nationalism
10. Hassan Imam - Indian National Movement
11. Gopal S. - British Policy in India (1858 -1905)
12. Srinivas M.N. - Social Change in Modern India
13. Mishra - The Uniform and Division of India
14. Anil Seel - The Emergence of Indian Nationalism
15. Tarachand - Indian National movement's volumes
16. L. P. Sharma - Modern India
17. R.N. Agarwal Indian National Movement and Constitutional Development
18. K.L.Khurana – History of Medieval India
19. Shivarudrswamy- AdhunikBharatdItihas

RANI CHANNAMMA UNIVERSITY, BELAGAVI
HISTORY And ARCHAEOLOGY
B.A- VI Semester OR
OPTIONAL PAPER-II: HISTORY OF MODERN KARNATAKA(1336-1956 A.D)

Teaching Hours: 4 hrs per week 16x4 = 64hrs

Unit- I Vijayanagar Empire and Deccan Sultans:

A. Vijayanagar Empire: Sangama, DevarayaII,Tuluva- Shri. Krishnadevaray and Achievements,Ramaraya - Battle of Talikote and Cultural Contributions of Vijayanagara Empire.
B. Bahamani:Mahammad Gawan- His Military and Administrative Reforms
C. Adilshahis of Bijapur :Muhammad Adilshahi, Ibrahim II and Contributions to Literature, Art and Architecture.

Unit - II Minor Dynasties of Karanataka

A. Wodeyars of Mysore and Minor Dynasties – Chikkadevaraj Wodeyars - Nayakasa of Keladi –Shivappa Nayaka.
B. Nayakas of Chitradurg : Veer Madakari Nayak –V and Nadaprabhus of Yalahanka –Kempegouda and Oneke Obavva.
C. Rise of Hyder Ali and Tipu Sultan : Their Achievements.

Unit – III Anti -British Revolts and Re-Rule of Mysore

A. Kittur Revolt : Rani Chennamma and Sangolli Rayanna
B. Babasaheb of Naragunda and Mundaragi Bheema Rao, Venkatappa Nayaka of Surupura Sansthan and Bedas of Halagali Revolts.
C. Rendition of Mysore Krishna Raja Wodeyar III-Diwan Poornayya

Unit - IV Commissioners and Reconstruction of Mysore

A. Commissioners rule of Mysore:Mark Cubbon and Luyi Bentham Bouring
B. Reconstruction of Mysore : Krishna Raja Wodeyar -IV - His Social, Industrial, Reforms . **Diwans of Mysore**: SheshadriIyer, Sir M Vishveshwarayya and Mirza Ismail- Their Reforms
C. Freedom Movement in Karnataka: Non- Co-operation Movement, Belgaum Session, Salt Satyagraha, Quit India Movement-Special Reference to Shivapura, Esur, Viduraswatva.
Unification Movement in Karnataka.

Unit - V Map Topics

A. The Vijaynagar empire under Krishnadevaray
B. Main Centres of Freedom Movement in Karnataka- 1.Esur 2.Vidurasatva 3. Shivpur 4.Belagavi 5. Ankola 6. Mundargi 7.Halagali 8.Kittur 9.Naragund 10. Surapur

Reference Books:

1. ನಂಜುಂಡಸ್ವಾಮಿ. ಎ.ಎಸ್: ವಿಜಯನಗರದಇತಿಹಾಸ, ಸಮಾಜ ಪುಸ್ತಕಾಲಯಧಾರವಾಡ. 1999,

2. ಲಕ್ಷ್ಮಣ್‌ತೆಲಗಾವಿ–ಚಿತ್ರದುರ್ಗ ನಾಯಕಅರಸರುರಾಜಕೀಯಚಿತ್ರ, ವಾಲ್ಮೀಕಿ ಸಾಹಿತ್ಯ ಸಂಪದ ಹರ್ತಿಕೋಟೆ. 2009,

3. ಲಕ್ಷ್ಮಣ್ ತೆಲಗಾವಿ–ಎಪ್ಪತ್ತೇಳು ಪಾಳೆಯಗಾರರು, ವಾಲ್ಮೀಕಿ ಸಾಹಿತ್ಯ ಸಂಪದ ಹರ್ತಿಕೋಟೆ. 2010,

4. Robert Sewell- Forgotten Empire, Delhi National Book Trust. 1982,

5. Saletore B.A-Social and Political life in the VijayanagaraEmpire,Madras. 1934,

6. Suryanarain Roy B, A History of Vijayanagara. The never to be forgotten Empire Asian Educational Services New Delhi1905,

7. VenkataRamanayya - Vijayanagara Origin of the city and Empire, Asian Educational Services New Delhi. 1933,

8. ಚುಳಕಿ ಆರ್.ಎಸ್– ಮೆಡೋಸ್‌ಟೇಲರನು ಚಿತ್ರಿಸಿದ ಭಾರತ. ಕನ್ನಡ ಸಾಹಿತ್ಯ ಪರಿಷತ್ತು, ಬೆಂಗಳೂರು.

9. Chandrashekar V.S- Dewan Rangacharlu. Publication Divission. New Delhi-1981

10. Chandrashekar.S-. Dimensions of Socio-Political Change in Mysore-1918-1940. New Delhi-1948.

11. Diwakar R.R- Karnataka through the Ages-Bangalore-1968.

12. Gayathri, M.B-Development of Mysore State, 1940-56. Mysore 1997.

13. Hettne, Bjorn- The Political Economy of Indirect Rule, Mysore-1881-1947 Delhi.

14. Iyenger.A.R- The Economic Outlook of Mysore Wadeyar-1917

15. Ramakrishna.- Press and Politics in an Indian State, Mysore-1859-1947

HISTORY AND ARCHAEOLOGY
B.A. VI Semester OR
OPTIONAL PAPER– II : HISTORY OF MODERN EUROPE
(1914-1990 A.D.)
Teaching Hours: 4 hrs per week 16x4 = 64 hrs

Unit-I

A. First World War- Causes Course and Results.

B. Paris Peace Conference

C. League of Nations

Unit-II

A. Russian Revolution of 1917: – Causes Course and Results.

B. Lenin and Stalin-Domestic and Foreign Policy

C. Rise of Dictatorship in Italy and Germany

Unit- III

A. Second World War- Causes Course and Results.

B. UNO: Objectives, Structure and Achievements

C. Post- War military pacts in Europe-NATO, CENTO, SEATO Warsaw pact

Unit-IV

A. Cold War (1945-1990) Meaning, Ideology and Impact

B. Re-union of Germany -1990

C. Disintegration of USSR-Michael Gorbachev

Unit –V Map Topics:

A. Important places where battles of World War I occurred

B. Places of Historical Importance

1.Metz 2) Sarajevo 3) Geneva 4) The Hague 5) Rome 6) Berlin7) Munich 8) Warsaw 9) Crimea 10) Corfu 11) Bonn 12) Copenhagen 13) Lisbon 14) Locarno 15) Nuremberg

Books of reference :

1. Modern Europe : V.D.Mahajan
2. History of Modern Europe : Raghavendra Prabhu
3. Text book of European History: Raghubir Dayal, Dehi
4. Europe since Napolean, Penguin, 1978 : David Thompson
5. History of Modern Europe : C.D Hazen : S. Chand
6. Publication, New delhi.
7. Modern Europe- K L Khurana
8. ಆಧುನಿಕ ಯುರೋಪ : ಡಿ. ಟಿ ಜೋಶಿ
9. ಆಧುನಿಕ ಯುರೋಪ್ : ಕೆ ಜಗದೀಶ
10. ಆಧುನಿಕ ಯುರೋಪ : ಡಾ॥ ಘಟಪನದಿ
11. ವಿಶ್ವ ಇತಿಹಾಸದ ಹೆಜ್ಜೆ ಗುರುತುಗಳು : ರಾಮಲಿಂಗಪ್ಪ

HISTORY AND ARCHAEOLOGY
B.A. VI Semester OF
OPTIONAL PAPER– II: History of Modern Tourism
Teaching Hours: 4 hrs per week 16x4 = 64hrs

Unit-I Organization and Environment Tourism

A. Tourism Organizations: State, National and International
B. Organizations: Government, Semi- Government and Non-Governmental Organizations
C. Responsible Tourism- Protection of Physical, Natural Environment in Tourist Sites

Unit-II Impact of Tourism

A. Impact of Tourism
B. Impact of Tourism on Environment
C. Impact of Tourism on Society and Culture

Unit- III Heritage Sites and Development

A. World Heritage sites in India – Significance- Historical and Natural Sites.
B. Important Tourist Destination of Eastern, Western and Central India,
C. Threats to Tourism Development-Terrorism, Epidemics and Natural Disasters.

Unit-IV Economic Prospective of Tourism

A. Tourism as an Industry
B. Employment opportunities
C. Preservation and Conservation of Heritage Tourism Sites, Role and Responsibility of Tourists

Unit-V: Map Topics:

A. Map questions- Important Tourist Places

1 Westerns Ghats 2) Madikere 3) Mahabalipuram 4) Bhimbedka 5) Saranath 6) Elephanta 7 Mysore 8) Jaipur 9) Fatepur Sikri 10) Bijapur 11) Bodh Gaya 12) Pattadakal 13) Bandipur 14) Kulu Manali 15) Darjiling 16) Udupi 17) Ooty 18) Pondiehery, 19) Ajanta 20) Ellora

Reference Books:

01. Ashorth G.J - Marketing in Tourism Industry
02. Bhatia A.K. - International Tourism
03. Bhatia A.K. - Tourism Development
04. Chunk Kelvin - Professional Travel Agency Management
05. Clare, Gunn - Tourism Planning
06. Gregory A - The Travel Agent : Dealers in Dream
07. Tourism Department - Publications and Folders
08. Jafari J - Anatomy of the Travel Industry
09. Khan, Nafees A - Development Tourism in India
10. Krippendrof J - The Holiday Makers
11. Krishna K Karama - Basics of Tourism
12. KSTDC - Publication Individual Folders
13. KSTDC - Publications, Karnataka Traveler, Bangalore
14. Kulakarni M.V - Tourism Marketing
15. Marrison A.M. - Hospitality and Travel Marketing
16. Peters Mischel - International Tours
17. Ranga Mukesh - Tourism Potential in India
18. Vijayalakshmi, K.S.- History and Tourism

Department of History and Archaeology

SEC IV . B.A – VI Semester

Guiding Skill and Personality Development

Teaching Hours : 2hrs per week 16 X 2= 32

Unit –I Guiding Concept

a) Meaning
b) Concept and Types of Guides
c) Conceptual meaning of Tourist Guide

Unit –II Responsibility Of Guides

a) Preparation of Tour
b) Greeting Participants and Introducing self
c) General Instruction to Participants at Monuments

Unit –III Personality development

a) Introduction Meaning of personality
b) Personality Factors – External , Internal
c) Physical Fitness , Dressinf sense, formal and Informal Clothing

Refrence Books :

1. Goddy B.& Parkin I : Urban Interpretation, oxford polytechnic-1991
2. Pond K.L : The professional Guide , Newyork- 1993
3. Pond K.L : Dynamic of Tour Guiding, Newyork-1993

Department of History and Archaeology

QUESTION PAPER PATTERN

BA CHOICE BASED CREDIT SYSTEM (SEMESTER SCHEME)

W.e.f 2020-2021

Time: 3 hours **Max. Marks: 80**

NOTE: Read Instructions carefully. All parts are compulsory except for their Internal options.

PART – A

Instructions: Answer any four from the following in 100 words each. All questions carry equal marks. **4x5 = 20**

1)

2)

3)

4)

5)

6)

PART – B

Instructions: Answer any three from the following in 300 words each. All questions carry equal marks. **3x10 = 30**

1)

2)

3)

4)

5)

PART – C

Instructions: Answer any two from the following in 500 words each. All questions carry equal marks. **2x15 = 30**

1)

2)

3)

4)

RANI CHANNAMMA UNIVERSITY
BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

COMPULSORY PAPER

INDIAN CONSTITUTION

1ST Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

Part 3: AECC - Ability Enhancement Compulsory Course

Sem	Course Code	Title of the Paper	Teaching Hours/Week	Credits	Marks		Total	Duration of Exam
					Sem End Exam	IA		
I	AECC	INDIAN CONSTITUTION	2	2	40	10	50	2 Hrs

The constitution of India aims to imbue students with the constitutional making process and its formulations. Further, it is done with the objective to acquaint / embolden students to have the basic understanding of the constitution of India.

Unit – 1 Constitution – Structure and Principles

1. Meaning and importance of Constitution.
2. Making of Indian Constitution – Sources
3. Salient features of Indian Constitution

Unit – 2 Fundamental Rights and Directive Priniples

1. Fundamental Rights.
2. Fundamental Duties.
3. Directive Principles.

Unit – 3 Government of Union

1. President of India – Electron and Powers.
2. Prime Minister and Council of Ministers.
3. Lok Sabha – Composition and Powers.
4. Rajya Sabha – Composition and Powers.

Reference :

1) Durga Das Basu, Introduction to the Constitution of India, Gurgaon; LexisNexis, 2018 (23rd edn.)
2) M. V. Pylee, India's Constitution, New Delhi; S. Chand Pub., 2017 (16th edn.)
3) J.N. Pandey, The Constitutional Law of India, Allahabad; Central Law Agency, 2018 (55th edn.)
4) Constitution of India (Full Text), India. Gov. in., National Portal of India, https://www.india.gov.in/sites/upload_files/npi/files/coi_part_full.pdf
5) Durga Das Basu, Bharatada Samvidhana Parichaya, Gurgaon; Lexis Nexis Butter worths Wadhawa, 2015.
6) Kb Merunandan, Bharatada Samvidhana Ondu Parichaya, Bangalore, Meragu Publications, 2015.
7) ಡಾ. ಎಂ.ಎಸ್. ಪಾಟೀಲ ಪ್ರಾಚಾರ್ಯರು ಎಸ್.ಕೆ.ಕಲಾ, ವಾಣಿಜ್ಯ ಹಾಗೂ ವಿಜ್ಞಾನ ಮಹಾವಿದ್ಯಾಲಯ, ತಾಳಿಕೋಟಿ ಭಾರತದ ಸಂವಿಧಾನ ಪ್ರತಿಭಾ ಪ್ರಕಾಶನ ತಾಳಿಕೋಟಿ.
8) ಪ್ರೋ. ಎಚ್. ಎಂ. ರಾಜಶೇಖರ ಭಾರತ ಸರ್ಕಾರ ಮತ್ತು ರಾಜಕೀಯ.
9) ಎಸ್. ಪಿ. ಡಂಗಿ ಭಾರತ ಸಂವಿಧಾನ ಪರಮಲಕ್ಷ್ಮೀ ಪ್ರಕಾಶನ.

Question paper pattern:

There will be two sections in a question paper of theory course for the semester end examination.
(Part I and Part II).

Part I - There shall be 6 questions carrying 2marks each. Students should answer any 4 questions out of 6 questions.

Part II - There shall be 4 questions (two from each unit with sub questions a, b, & c) carrying 16 marks each. Students should answer any 2 questions out of 4 questions.

Part I (4x 2) : 08Marks

Part II (2 X 16) : 32 Marks

Distribution of Marks:

Theory Courses:	**a) Examination**	**:**	**40 Marks**
	b) Internal Assessment	**:**	**10 Marks**
	c) Total	**:**	**50 Marks**

RANI CHANNAMMA UNIVERSITY
BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

KANNADA

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

Part 2: DSC - Discipline Specific Course (B.A Optional Kannada)

Sem	Course Code	Title of the Paper	Teaching Hours/Week	Credits	Marks		Total	Duration of Exam
					Sem End Exam	IA		
I	DSC KAN	ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ ಮತ್ತು ರಗಳೆ ಸಾಹಿತ್ಯ ಪ್ರಕಾರದ ಪರಿಚಯಾತ್ಮಕ ಅಧ್ಯಯನ	5	3	80	20	100	3 Hrs
II	DSC KAN	ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ ಮತ್ತು ಕಾದಂಬರಿ ಪ್ರಕಾರದ ಪರಿಚಯಾತ್ಮಕ ಅಧ್ಯಯನ	5	3	80	20	100	3 Hrs
III	DSC KAN	ಭಾರತೀಯ ಹಾಗೂ ಪಾಶ್ಚಿಮಾತ್ಯ ಕಾವ್ಯ ಮೀಮಾಂಸೆ ಹಾಗೂ ಕಥಾಪ್ರಕಾರದ ಪರಿಚಯಾತ್ಮಕ ಅಧ್ಯಯನ	5	3	80	20	100	3 Hrs
IV	DSC KAN	ಅಲಂಕಾರ ಮತ್ತು ಕನ್ನಡ ಛಂದಸ್ಸು ಹಾಗೂ ಹೊಸಗನ್ನಡ ಕವಿತೆಗಳ ಪರಿಚಯಾತ್ಮಕ ಅಧ್ಯಯನ	5	3	80	20	100	3 Hrs
V	DSC KAN	ಕನ್ನಡ ಜಾನಪದ ಸಾಹಿತ್ಯ ಹಾಗೂ ಯಕ್ಷಗಾನ ಪ್ರಕಾರದ ಪರಿಚಯಾತ್ಮಕ ಅಧ್ಯಯನ ಕನ್ನಡ ವ್ಯಾಕರಣ ಪರಂಪರೆ ಮತ್ತು ಭಾಷಾ ವಿಜ್ಞಾನ	5	3	80	20	100	3 Hrs
VI	DSC KAN	ಕನ್ನಡ ಸಂಸ್ಕೃತಿ ಅಧ್ಯಯನ ಮತ್ತು ಸಂಶೋಧನಾ ಲೇಖನಗಳು ಕನ್ನಡದ ಪ್ರಮುಖ ಪತ್ಯಗಳು	5	3	80	20	100	3 Hrs

Part 3: SEC - Skill Enhancement Course (ಕೌಶಲ್ಯ ಕನ್ನಡ) for all courses (Open Elective Course)

Sem	Course Code	Title of the Paper	Teaching Hours/Week	Credits	Marks		Total	Duration of Exam
					Sem End Exam	IA		
III	SEC KAN	ಸ್ಪರ್ಧಾತ್ಮಕ ಕನ್ನಡ	2	2	40	10	50	2 Hrs
IV	SEC KAN	ಕೌಶಲ್ಯ ಕನ್ನಡ	2	2	40	10	50	2 Hrs
V	SEC KAN	ಭಾಷಾಂತರ ಕೌಶಲ್ಯ	2	2	40	10	50	2 Hrs
VI	SEC KAN	ವ್ಯವಹಾರಿಕ ಕನ್ನಡ	2	2	40	10	50	2 Hrs

ಬಿ.ಎ. ಐಚ್ಛಿಕ ಕನ್ನಡ ತರಗತಿಗಳಿಗೆ
ಮೊದಲ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.
ಐಚ್ಛಿಕ ಕನ್ನಡ (Discipline Specific Course 1A) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

೧. ಪ್ರಥಮ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆಯನ್ನು ಸ್ಥೂಲವಾಗಿ ಪರಿಚಯಿಸುವುದು ಮತ್ತು ರಗಳೆ ಪ್ರಕಾರದ ಒಂದು ಕಾವ್ಯಭಾಗವನ್ನು ಹಾಗೂ ಆ ಪ್ರಕಾರದ ಸ್ವರೂಪ ಹುಟ್ಟು ಬೆಳವಣಿಗೆಯನ್ನು ಕುರಿತು ವಿಶೇಷವಾಗಿ ಅಧ್ಯಯಿನಿಸುವುದು.
೨. ಈ ಪತ್ರಿಕೆಗೆ ಒಟ್ಟು ಪಾಠದ ಅವಧಿ ೮೦ ಗಂಟೆಗಳಾಗಿರುತ್ತವೆ. ವಾರಕ್ಕೆ ೦೫ ಗಂಟೆಗಳ ಬೋಧನೆಯನ್ನು ನಿಗದಿಪಡಿಸಲಾಗಿದೆ. ಒಟ್ಟು ಅಂಕಗಳು ೧೦೦ ಆಂತರಿಕ ಗುಣಾಂಕಕ್ಕೆ ೨೦ಅಂಕಗಳು (ಹಾಜರಾತಿಗೆ ೦೩, ಮೊದಲ ಕಿರು ಪರೀಕ್ಷೆಗೆ ೦೪, ಎರಡನೆಯ ಕಿರು ಪರೀಕ್ಷಗೆ ೧೦, ನಿಯೋಜಿತ ಕಾರ್ಯಕ್ಕೆ ೦೩ ಅಂಕಗಳು) ಹಾಗೂ ಥಿಯರಿ ಪರೀಕ್ಷೆಗೆ ೮೦ ಅಂಕಗಳು. ಕ್ರೆಡಿಟ್‌ಗಳು ೦೩

ಪಠ್ಯಕ್ರಮ

ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ ೮೦ ಅಂಕಗಳು

೧ ಕನ್ನಡ ಭಾಷೆ–ಸಾಹಿತ್ಯದ ಪ್ರಾಚೀನತೆ ಹಾಗೂ ಸಾಹಿತ್ಯ ರೂಪಗಳು (೪೦ ಅಂಕಗಳು)

ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯ ರೂಪಗಳು: ಚಂಪೂ ಮತ್ತು ಗದ್ಯ ಸ್ವರೂಪ, ಲಕ್ಷಣ, ಕೊಡುಗೆಗಳ ಸ್ಥೂಲ ಪರಿಚಯ.
ಮಧ್ಯಕಾಲೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯ ರೂಪಗಳು: ವಚನ, ರಗಳೆ, ಷಟ್ಪದಿ, ಕೀರ್ತನೆ, ಸಾಂಗತ್ಯ, ತ್ರಿಪದಿಗಳ ಸ್ವರೂಪ, ಲಕ್ಷಣಗಳ ಸ್ಥೂಲ ಪರಿಚಯ.

೨ ಪ್ರಮುಖ ಕವಿ–ಕೃತಿಗಳ ಅಧ್ಯಯನ (೪೦ ಅಂಕಗಳು)

ಶ್ರೀವಿಜಯ, ಪಂಪ, ರನ್ನ, ನಾಗಚಂದ್ರ, ದುರ್ಗಸಿಂಹ, ಜನ್ನ, ಆಂಡಯ್ಯ, ಬಸವಣ್ಣ, ಅಲ್ಲಮ, ಸಿದ್ಧರಾಮ, ಅಕ್ಕಮಹಾದೇವಿ, ಹರಿಹರ, ರಾಘವಾಂಕ, ಕುಮಾರವ್ಯಾಸ, ಲಕ್ಷ್ಮೀಶ, ಪುರಂದರದಾಸ, ಕನಕದಾಸ, ರತ್ನಾಕರವರ್ಣಿ, ಸರ್ವಜ್ಞ, ಶಿಶುನಾಳ ಶರೀಫ, ಮುದ್ದಣ.

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು

೧ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ: ರಂ ಶ್ರೀ ಮುಗಳಿ
೨ ಸಾಹಿತ್ಯ ಸಂಗಾತಿ: ಕೀರ್ತಿನಾಥ ಕುರ್ತಕೋಟಿ
೩ ಶ್ರೀಸಾಮಾನ್ಯನಿಗೆ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ: ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಬೆಂಗಳೂರು.

ಮಾದರಿ ಪ್ರಶ್ನೆಪತ್ರಿಕೆ.

೧ ಪ್ರಾಚೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ ಕುರಿತು ಒಂದು ಪ್ರಬಂಧ ರೂಪದ ಪ್ರಶ್ನೆ– ೧೫ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)
೨ ಮಧ್ಯಕಾಲೀನ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಕುರಿತು ಒಂದು ಪ್ರಬಂಧ ರೂಪದ ಪ್ರಶ್ನೆ– ೧೫ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)
೩ ಪ್ರಮುಖ ಕವಿ–ಕೃತಿಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಒಂದು ಪ್ರಬಂಧ ರೂಪದ ಪ್ರಶ್ನೆ– ೧೫ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)
೪ ಬೇಕಾದ ನಾಲ್ಕಕ್ಕೆ ಟಿಪ್ಪಣಿ ಬರೆಯುವುದು ೨೦ ಅಂಕಗಳು (ಪ್ರಮುಖ ಕವಿ–ಕೃತಿಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಆರು ಟಿಪ್ಪಣಿ ಕೊಟ್ಟು ನಾಲ್ಕಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)
೫ ಒಂದು ಅಂಕದ ಪ್ರಶ್ನೆಗಳು ೧೫ ಅಂಕಗಳು (ಮೊದಲ ಭಾಗದಿಂದ ೧೦, ಎರಡನೆಯ ಭಾಗದಿಂದ ೦೫ ಪ್ರಶ್ನೆ ಕೇಳುವುದು)

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ಬಿ.ಎ. ಐಚ್ಛಿಕ ಕನ್ನಡ ತರಗತಿಗಳಿಗೆ
ಎರಡನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.
ಐಚ್ಛಿಕ ಕನ್ನಡ (Discipline Specific Course 1B) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

೧. ಎರಡನೆಯ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆಯನ್ನು ಸ್ಥೂಲವಾಗಿ ಪರಿಚಯಿಸುವುದು ಮತ್ತು ಕಾದಂಬರಿಯೊಂದನ್ನು ಹಾಗೂ ಕಾದಂಬರಿ ಪ್ರಕಾರದ ಸ್ವರೂಪ ಹುಟ್ಟು ಬೆಳವಣಿಗೆಯನ್ನು ಕುರಿತು ವಿಶೇಷವಾಗಿ ಅಧ್ಯಯಿನಿಸುವುದು.
೨. ಈ ಪತ್ರಿಕೆಗೆ ಒಟ್ಟು ಪಾಠದ ಅವಧಿ ೮೦ ಗಂಟೆಗಳಾಗಿರುತ್ತವೆ. ವಾರಕ್ಕೆ ೦೫ ಗಂಟೆಗಳ ಬೋಧನೆಯನ್ನು ನಿಗದಿಪಡಿಸಲಾಗಿದೆ. ಒಟ್ಟು ಅಂಕಗಳು ೧೦೦ ಆಂತರಿಕ ಗುಣಾಂಕಕ್ಕೆ ೨೦ ಅಂಕಗಳು (ಹಾಜರಾತಿಗೆ ೦೩, ಮೊದಲ ಕಿರು ಪರೀಕ್ಷೆಗೆ ೦೪, ಎರಡನೆಯ ಕಿರು ಪರೀಕ್ಷಗೆ ೧೦, ನಿಯೋಜಿತ ಕಾರ್ಯಕ್ಕೆ ೦೩ ಅಂಕಗಳು) ಹಾಗೂ ಥಿಯರಿ ಪರೀಕ್ಷೆಗೆ ೮೦ ಅಂಕಗಳು. ಕ್ರೆಡಿಟ್‌ಗಳು ೦೩

ಪಠ್ಯ : ಶಾಸ್ತ್ರೀಯ ಭಾರತಿ – ೧

೧. ಪಂಪಭಾರತದಿಂದ ಆಯ್ದ ಭಾಗ – ೨೦ ಪದ್ಯ
೨. ಪಂಪರಾಮಾಯಣದಿಂದ ಆಯ್ದ ಭಾಗ – ೨೦ ಪದ್ಯ
೩. ಪಂಚತಂತ್ರದ ಒಂದು ಕಥೆ ೫ ಪುಟ
೪. ವಚನಗಳು ೧೧
೫. ಹರಿಹರನ ಒಂದು ರಗಳೆ
೬. ಕುಮಾರವ್ಯಾಸನ ಕಾವ್ಯದಿಂದ ಆಯ್ದ ಭಾಗ – ೨೫ ಪದ್ಯ
೭. ಕೀರ್ತನೆಗಳು ೫
೮. ಭರತೇಶ ವೈಭವದ ಆಯ್ದ ಭಾಗ ೨೦ ಪದ್ಯ
೯. ಶರೀಫರ ಹಾಗೂ ಕಡಕೋಳ ಮಡಿವಾಳಪ್ಪರ ಒಂದೊಂದು ತತ್ವ ಪದಗಳು
೧೦. ರಾಮಾಶ್ವಮೇಧದ ಒಂದು ಭಾಗ – ೫ ಪುಟ

ಮಾದರಿ ಪ್ರಶ್ನೆಪತ್ರಿಕೆ.

೧ ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ– ೧೫ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)
೨ ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ– ೧೫ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)
೩ ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ– ೧೫ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)
೪ ಬೇಕಾದ ನಾಲ್ಕಕ್ಕೆ ಟಿಪ್ಪಣಿ ಬರೆಯುವುದು ೨೦ ಅಂಕಗಳು (ಆರು ಟಿಪ್ಪಣಿ ಕೊಟ್ಟು ನಾಲ್ಕಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)
೫ ಒಂದು ಅಂಕದ ಪ್ರಶ್ನೆಗಳು ೧೫ ಅಂಕಗಳು (೧೫ ಪ್ರಶ್ನೆ ಕೇಳುವುದು)

ರಾಣಿ ಚನ್ನಮ್ಮ ವಿಶ್ವವಿದ್ಯಾಲಯದ ಪ್ರಸಾರಾಂಗದಿಂದ ಸದರಿ ಪಠ್ಯಭಾಗಗಳ ಪಠ್ಯಕ್ರಮವನ್ನು **'ಶಾಸ್ತ್ರೀಯ ಭಾರತಿ–೧'** ಪುಸ್ತಕರೂಪದಲ್ಲಿ ಪ್ರಕಟಿಸಲಾಗಿದೆ.

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ಬಿ.ಎ. ಐಚ್ಛಿಕ ಕನ್ನಡ ತರಗತಿಗಳಿಗೆ
ಮೂರನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.
ಐಚ್ಛಿಕ ಕನ್ನಡ (Discipline Specific Course 1C) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

೧. ಮೂರನೆಯ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ಭಾರತೀಯ ಹಾಗೂ ಪಾಶ್ಚಿಮಾತ್ಯ ಕಾವ್ಯ ಮೀಮಾಂಸೆಯನ್ನು ಸ್ಥೂಲವಾಗಿ ಪರಿಚಯಿಸುವುದು ಮತ್ತು ಐದು ಸಣ್ಣಕತೆಗಳನ್ನು ಹಾಗೂ ಕನ್ನಡದ ಸಣ್ಣಕತೆ ಪ್ರಕಾರದ ಸ್ವರೂಪ ಹುಟ್ಟು ಬೆಳವಣಿಗೆಯನ್ನು ಕುರಿತು ವಿಶೇಷವಾಗಿ ಅಧ್ಯಯಿನಿಸುವುದು.

೨. ಈ ಪತ್ರಿಕೆಗೆ ಒಟ್ಟು ಪಾಠದ ಅವಧಿ ೮೦ ಗಂಟೆಗಳಾಗಿರುತ್ತವೆ. ವಾರಕ್ಕೆ ೦೫ ಗಂಟೆಗಳ ಬೋಧನೆಯನ್ನು ನಿಗದಿಪಡಿಸಲಾಗಿದೆ. ಒಟ್ಟು ಅಂಕಗಳು ೧೦೦ ಆಂತರೀಕ ಗುಣಾಂಕಕ್ಕೆ ೨೦ಅಂಕಗಳು (ಹಾಜರಾತಿಗೆ ೦೪, ಮೊದಲ ಕಿರು ಪರೀಕ್ಷೆಗೆ ೦೬, ಎರಡನೆಯ ಕಿರು ಪರೀಕ್ಷಗೆ ೦೬, ನಿಯೋಜಿತ ಕಾರ್ಯಕ್ಕೆ ೦೪ ಅಂಕಗಳು) ಹಾಗೂ ಥಿಯರಿ ಪರೀಕ್ಷೆಗೆ ೮೦ ಅಂಕಗಳು. ಕ್ರೆಡಿಟ್‌ಗಳು ೦೩

ಪಠ್ಯಕ್ರಮ

ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ ೮೦ ಅಂಕಗಳು

೧ ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ ವಿಭಾಗ ಕ್ರಮ ಮತ್ತು ರೂಪಗಳು (೪೦ ಅಂಕಗಳು)

ನವೋದಯ–ಪ್ರಗತಿಶೀಲ–ನವ್ಯ–ದಲಿತ, ಬಂಡಾಯ ಮತ್ತು ಮಹಿಳಾ ಸಾಹಿತ್ಯ : ಸ್ವರೂಪ, ಪ್ರೇರಣೆ – ಧೋರಣೆಗಳು

ಆಧುನಿಕ ಸಾಹಿತ್ಯ ರೂಪಗಳ ಸ್ಥೂಲ ಪರಿಚಯ.

ಕಾವ್ಯ, ಕಥೆ, ಕಾದಂಬರಿ, ನಾಟಕ, ಪ್ರಬಂಧ, ಆತ್ಮಕಥೆ, ಜೀವನ ಚರಿತ್ರೆ ಇತ್ಯಾದಿ.

೨ ಪ್ರಮುಖ ಕವಿ–ಕೃತಿಗಳ ಅಧ್ಯಯನ (೪೦ ಅಂಕಗಳು)

ಕುವೆಂಪು, ಬೇಂದ್ರೆ, ಅ.ನ.ಕೃ, ನಿರಂಜನ, ಕಟ್ಟಿಮನಿ, ಪಿ. ಲಂಕೇಶ, ಅಡಿಗ–ಗೋಕಾಕ, ಸಿದ್ಧಲಿಂಗಯ್ಯ–ಬರಗೂರು, ಚಂಪಾ, ಕಣವಿ–ಶಿವರುದ್ರಪ್ಪ, ಭೈರಪ್ಪ, ಕುಂವೀ,ಸಾ.ರಾ.ಅಬೂಬಕರ, ಬಿ.ಟಿ.ಲಲಿತಾ ನಾಯಕ್, ಗೀತಾ ನಾಗಭೂಷಣ

ಪರಾಮರ್ಶನ ಗ್ರಂಥಗಳು

೧ ಹೊಸಗನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ: ಎಲ್.ಎಸ್.ಶೇಷಗಿರಿರಾವ

೨ ಶ್ರೀಸಾಮಾನ್ಯನಿಗೆ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ,ಸಂಪುಟ ೧೦, ಬೆಂಗಳೂರು ವಿಶ್ವವಿದ್ಯಾನಿಲಯ, ಬೆಂಗಳೂರು.

ಮಾದರಿ ಪ್ರಶ್ನೆಪತ್ರಿಕೆ.

೧ ಆಧುನಿಕ ಕನ್ನಡ ಸಾಹಿತ್ಯ ಚರಿತ್ರೆ ಕುರಿತು ಒಂದು ಪ್ರಬಂಧ ರೂಪದ ಪ್ರಶ್ನೆ– ೧೫ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)

೨ ಆಧುನಿಕ ಸಾಹಿತ್ಯ ರೂಪಗಳ ಕುರಿತು ಒಂದು ಪ್ರಬಂಧ ರೂಪದ ಪ್ರಶ್ನೆ– ೧೫ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)

೩ ಪ್ರಮುಖ ಕವಿ–ಕೃತಿಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಒಂದು ಪ್ರಬಂಧ ರೂಪದ ಪ್ರಶ್ನೆ– ೧೫ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)

೪ ಬೇಕಾದ ನಾಲ್ಕಕ್ಕೆ ಟಿಪ್ಪಣಿ ಬರೆಯುವುದು ೨೦ ಅಂಕಗಳು (ಪ್ರಮುಖ ಕವಿ–ಕೃತಿಗಳಿಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಆರು ಟಿಪ್ಪಣಿ ಕೊಟ್ಟು ನಾಲ್ಕಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)

೫ ಒಂದು ಅಂಕದ ಪ್ರಶ್ನೆಗಳು ೧೫ ಅಂಕಗಳು (ಮೊದಲ ಭಾಗದಿಂದ ೧೦, ಎರಡನೆಯ ಭಾಗದಿಂದ ೦೫ ಪ್ರಶ್ನೆ ಕೇಳುವುದು)

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ಬಿ.ಎ. ಐಚ್ಛಿಕ ಕನ್ನಡ ತರಗತಿಗಳಿಗೆ
ನಾಲ್ಕನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.
ಐಚ್ಛಿಕ ಕನ್ನಡ (Discipline Specific Course 1D) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

೧. ನಾಲ್ಕನೆಯ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ಅಲಂಕಾರ ಮತ್ತು ಛಂದಸ್ಸನ್ನು ಕುರಿತು ಸ್ಥೂಲವಾಗಿ ಪರಿಚಯಿಸುವುದು ಮತ್ತು ಹತ್ತು ಭಾವಗೀತೆಗಳನ್ನು ಹಾಗೂ ಭಾವಗೀತೆ ಪ್ರಕಾರದ ಸ್ವರೂಪ ಹುಟ್ಟು ಬೆಳವಣಿಗೆಯನ್ನು ಕುರಿತು ವಿಶೇಷವಾಗಿ ಅಧ್ಯಯಿನಿಸುವುದು.

೨. ಈ ಪತ್ರಿಕೆಗೆ ಒಟ್ಟು ಪಾಠದ ಅವಧಿ ೮೦ ಗಂಟೆಗಳಾಗಿರುತ್ತವೆ. ವಾರಕ್ಕೆ ೦೫ ಗಂಟೆಗಳ ಬೋಧನೆಯನ್ನು ನಿಗದಿಪಡಿಸಲಾಗಿದೆ. ಒಟ್ಟು ಅಂಕಗಳು ೧೦೦ ಆಂತರೀಕ ಗುಣಾಂಕಕ್ಕೆ ೨೦ಅಂಕಗಳು (ಹಾಜರಾತಿಗೆ ೦೩, ಮೊದಲ ಕಿರು ಪರೀಕ್ಷೆಗೆ ೦೪, ಎರಡನೆಯ ಕಿರು ಪರೀಕ್ಷಗೆ ೧೦, ನಿಯೋಜಿತ ಕಾರ್ಯಕ್ಕೆ ೦೩ ಅಂಕಗಳು) ಹಾಗೂ ಥಿಯರಿ ಪರೀಕ್ಷೆಗೆ ೮೦ ಅಂಕಗಳು.

ಪಠ್ಯ : 'ಶಾಸ್ತ್ರೀಯ ಭಾರತಿ–೨'

೧. ಆಧುನಿಕ ಕಾವ್ಯ(ಸಂಪಾದನೆ)

೨. ಕಥಾಲೋಕ (ಸಂಪಾದನೆ)

೩. ನಾಟಕ/ಕಾದಂಬರಿ/ಆತ್ಮಕಥೆ/ಪ್ರಬಂಧ (ಮೂರು ಪಠ್ಯಗಳಿಗೆ ಸಮಾನ ಅಂಕಗಳು)

ಮಾದರಿ ಪ್ರಶ್ನೆಪತ್ರಿಕೆ.

೧ ಆಧುನಿಕ ಕಾವ್ಯದಿಂದ ಒಂದು ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ– ೧೫ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)

೨ ಕಥಾಲೋಕದಿಂದ ಒಂದು ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ– ೧೫ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)

೩ ಮೂರನೇ ಭಾಗದಿಂದ ಒಂದು ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ– ೧೫ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)

೪ ಬೇಕಾದ ನಾಲ್ಕಕ್ಕೆ ಟಿಪ್ಪಣಿ ಬರೆಯುವುದು ೨೦ ಅಂಕಗಳು (ಆರು ಟಿಪ್ಪಣಿ ಕೊಟ್ಟು ನಾಲ್ಕಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)

೫ ಒಂದು ಅಂಕದ ಪ್ರಶ್ನೆಗಳು ೧೫ ಅಂಕಗಳು (೧೫ ಪ್ರಶ್ನೆ ಕೇಳುವುದು)

ರಾಣಿ ಚನ್ನಮ್ಮ ವಿಶ್ವವಿದ್ಯಾಲಯದ ಪ್ರಸಾರಾಂಗದಿಂದ ಸದರಿ ಪಠ್ಯಭಾಗಗಳ ಪಠ್ಯಕ್ರಮವನ್ನು **'ಶಾಸ್ತ್ರೀಯ ಭಾರತಿ–೨'** ಪುಸ್ತಕರೂಪದಲ್ಲಿ ಪ್ರಕಟಿಸಲಾಗಿದೆ.

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ಬಿ.ಎ. ಐಚ್ಛಿಕ ಕನ್ನಡ ತರಗತಿಗಳಿಗೆ
ಐದನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.

ಐಚ್ಛಿಕ ಕನ್ನಡ (Discipline Specific Course 1E1) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

೧. ಐದನೆಯ ಸೆಮಿಸ್ಟರ್‌ನ ಪ್ರಥಮ ಪತ್ರಿಕೆಯಲ್ಲಿ ಕನ್ನಡ ಜನಪದ ಸಾಹಿತ್ಯವನ್ನು ಸ್ಥೂಲವಾಗಿ ಪರಿಚಯಿಸುವುದು ಮತ್ತು ಜನಪದ ಪ್ರದರ್ಶನ ಕಲೆಯ ಸಾಹಿತ್ಯವೊಂದನ್ನು ಕುರಿತು ವಿಶೇಷವಾಗಿ ಅಧ್ಯಯಿನಿಸುವುದು.

೨. ಈ ಪತ್ರಿಕೆಗೆ ಒಟ್ಟು ಪಾಠದ ಅವಧಿ ೮೦ ಗಂಟೆಗಳಾಗಿರುತ್ತವೆ. ವಾರಕ್ಕೆ ೦೫ ಗಂಟೆಗಳ ಬೋಧನೆಯನ್ನು ನಿಗದಿಪಡಿಸಲಾಗಿದೆ. ಒಟ್ಟು ಅಂಕಗಳು ೧೦೦ ಆಂತರೀಕ ಗುಣಾಂಕಕ್ಕೆ ೨೦ಅಂಕಗಳು (ಹಾಜರಾತಿಗೆ ೦೪, ಮೊದಲ ಕಿರು ಪರೀಕ್ಷೆಗೆ ೦೬, ಎರಡನೆಯ ಕಿರು ಪರೀಕ್ಷೆಗೆ ೦೬, ನಿಯೋಜಿತ ಕಾರ್ಯಕ್ಕೆ ೦೪ ಅಂಕಗಳು) ಹಾಗೂ ಥಿಯರಿ ಪರೀಕ್ಷೆಗೆ ೮೦ ಅಂಕಗಳು.

ಪಠ್ಯಕ್ರಮ

೧. ಅಲಂಕಾರ ಮತ್ತು ಕನ್ನಡ ಛಂದಸ್ಸು –(೬೦ ಅಂಕಗಳು) ೬೦ ಗಂಟೆಗಳ ಪಾಠ

ಎ. ಕನ್ನಡ ಜಾನಪದ ಕಾವ್ಯಗಳನ್ನು ಕುರಿತು ಒಳನೋಟಗಳು (ಹತ್ತು ಅಂಕಗಳು)

ಬಿ. ಜಾನಪದ ಸಾಹಿತ್ಯದ ಪ್ರಕಾರಗಳು – ಸೋಬಾನೆ, ಗರತಿಯ ಹಾಡು, ರಿವಾಯ್ತ ಪದಗಳು, ಚೌಡಕಿ ಪದಗಳು, ಗಾದೆ, ಒಡಪು, ಒಗಟು, ಕತೆ (ಇಪ್ಪತ್ತು ಅಂಕಗಳು)

ಸಿ. ಕನ್ನಡ ಜಾನಪದ ಪ್ರದರ್ಶಕ ಕಲೆಗಳನ್ನು ಕುರಿತು ಸ್ಥೂಲ ಪರಿಚಯ (ಹತ್ತು ಅಂಕಗಳು)

ಡಿ. ಕನ್ನಡ ಜಾನಪದ ಪ್ರದರ್ಶಕ ಕಲೆಗಳಳು – ಬಯಲಾಟ, ಶ್ರೀಕೃಷ್ಣ ಪಾರಿಜಾತ, ಪಾರಿಜಾತ, ಆಟ, ಸಣ್ಣಾಟ, ದೊಡ್ಡಾಟ, ಯಕ್ಷಗಾನ (ತೆಂಕತಿಟ್ಟು–ಬಡಗತಿಟ್ಟು) ಗೋಂದಲಿಗರಾಟ, ತೊಗಲು ಬೊಂಬೆಯಾಟ (ಇಪ್ಪತ್ತು ಅಂಕಗಳು)

೨. ಯಯಾತಿ –(೨೦ ಅಂಕಗಳು) (೨೦ಗಂಟೆಗಳ ಪಾಠ)

ಎ. ಯಯಾತಿ ಯಕ್ಷಗಾನ ಸನ್ನಿವೇಶ (ಇಪ್ಪತ್ತು ಅಂಕಗಳು)

ಪರಮಾರ್ಶನ ಗ್ರಂಥಗಳು

೧. ಕನ್ನಡ ಜಾನಪದ : (ಸಂ) ಕುವೆಂಪು

೨. ಕನ್ನಡ ಜಾನಪದ ಪರಿಭಾಷಾ ಕೋಶ :

ಮಾದರಿ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ ಮತ್ತು ಅಂಕಗಳ ವಿವರ

ಪ್ರಶ್ನೆ –೧ ಕನ್ನಡ ಜನಪದ ಸಾಹಿತ್ಯದ ಒಳನೋಟಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ಒಂದು ಪ್ರಬಂಧ ರೂಪದ ಪ್ರಶ್ನೆ – ೧೦ ಅಂಕಗಳು
(ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)

ಪ್ರಶ್ನೆ –೨ (ಅ) ಕನ್ನಡ ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ಒಂದು ಪ್ರಬಂಧ ರೂಪದ ಪ್ರಶ್ನೆ – ೧೦ ಅಂಕಗಳು
(ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)
(ಆ) ಕನ್ನಡ ಜನಪದ ಸಾಹಿತ್ಯ ಪ್ರಕಾರಗಳಿಗೆ ಸಂಬಂಧಿಸಿದ ಒಂದು ಟಿಪ್ಪಣಿ ಬರೆಯಿರಿ – ೦೫ ಅಂಕಗಳು
(ಎರಡು ಟಿಪ್ಪಣಿ ಕೊಟ್ಟು ಒಂದಕ್ಕೆ ಉತ್ತರಿಸಲು ಹೇಳುವುದು)

ಪ್ರಶ್ನೆ –೩ (ಅ) ಕನ್ನಡ ಜನಪದ ರಂಗಭೂಮಿಯ ಕುರಿತು ಒಂದು ಪ್ರಬಂಧ ರೂಪದ ಪ್ರಶ್ನೆ –೧೦ ಅಂಕಗಳು
(ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)
(ಆ) ಜನಪದ ಪ್ರದರ್ಶಕ ಕಲೆಗಳ ಕುರಿತು ಒಂದು ಪ್ರಬಂಧ ರೂಪದ ಪ್ರಶ್ನೆ –೧೦ ಅಂಕಗಳು
(ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)
(ಇ) ಜನಪದ ಪ್ರದರ್ಶಕ ಕಲೆಗಳ ಕುರಿತು ಒಂದು ಟಿಪ್ಪಣಿ ಬರೆಯುವುದು – ೧೫ ಅಂಕಗಳು
(ಆರು ಟಿಪ್ಪಣಿ ಕೊಟ್ಟು ಒಂದಕ್ಕೆ ಉತ್ತರಿಸುವುದು)

ಪ್ರಶ್ನೆ – ೪ ಅ) ಯಯಾತಿ ಯಕ್ಷಗಾನಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಒಂದು ಪ್ರಬಂಧ ರೂಪದ ಪ್ರಶ್ನೆ – ೧೦ ಅಂಕಗಳು (ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು)

ಆ) ಯಯಾತಿ ಯಕ್ಷಗಾನಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಒಂದಕ್ಕೆ ಟಿಪ್ಪಣಿ ಬರೆಯುವುದು – ೦೫ ಅಂಕಗಳು
(ಎರಡು ಟಿಪ್ಪಣಿ ಕೊಟ್ಟು ಒಂದಕ್ಕೆ ಉತ್ತರಿಸಲು ಹೇಳುವುದು)

ಪ್ರಶ್ನೆ –೫ ಒಂದೇ ವಾಕ್ಯದಲ್ಲಿ ಉತ್ತರಿಸಲು ಹೇಳುವುದು ೧೫ ಅಂಕಗಳು
(ಮೊದಲ ಭಾಗದಿಂದ ಹತ್ತು ಪ್ರಶ್ನೆ ಬಿ ವಿಭಾಗದಿಂದ ಐದು ಮತ್ತು ಸಿ, ಡಿ ವಿಭಾಗದಿಂದ ಐದು ಹಾಗೂ ಎರಡನೇ ವಿಭಾಗದಿಂದ ಐದು ಪ್ರಶ್ನೆಗಳು)

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Or

ಬಿ.ಎ. ಐಚ್ಛಿಕ ಕನ್ನಡ ತರಗತಿಗಳಿಗೆ
ಐದನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.

ಐಚ್ಛಿಕ ಕನ್ನಡ (Discipline Specific Course 1E2) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

೧. ಐದನೆಯ ಸೆಮಿಸ್ಟರ್‌ನ ಪ್ರಥಮ ಪತ್ರಿಕೆಯಲ್ಲಿ ಕನ್ನಡ ವ್ಯಾಕರಣವನ್ನು ಸ್ಥೂಲವಾಗಿ ಪರಿಚಯಿಸುವುದು ಮತ್ತು ಜನಪದ ಪ್ರದರ್ಶನ ಕಲೆಯ ಸಾಹಿತ್ಯವೊಂದನ್ನು ಕುರಿತು ವಿಶೇಷವಾಗಿ ಅಧ್ಯಯಿನಿಸುವುದು.

೨. ಈ ಪತ್ರಿಕೆಗೆ ಒಟ್ಟು ಪಾಠದ ಅವಧಿ ೮೦ ಗಂಟೆಗಳಾಗಿರುತ್ತವೆ. ವಾರಕ್ಕೆ ೦೫ ಗಂಟೆಗಳ ಬೋಧನೆಯನ್ನು ನಿಗದಿಪಡಿಸಲಾಗಿದೆ. ಒಟ್ಟು ಅಂಕಗಳು ೧೦೦ ಆಂತರೀಕ ಗುಣಾಂಕಕ್ಕೆ ೨೦ಅಂಕಗಳು (ಹಾಜರಾತಿಗೆ ೦೪, ಮೊದಲ ಕಿರು ಪರೀಕ್ಷೆಗೆ ೦೬, ಎರಡನೆಯ ಕಿರು ಪರೀಕ್ಷಗೆ ೦೬, ನಿಯೋಜಿತ ಕಾರ್ಯಕ್ಕೆ ೦೪ ಅಂಕಗಳು) ಹಾಗೂ ಥಿಯರಿ ಪರೀಕ್ಷೆಗೆ ೮೦ ಅಂಕಗಳು.

ಪಠ್ಯಕ್ರಮ

೧. ಕನ್ನಡ ವ್ಯಾಕರಣ ಪರಂಪರೆ ಮತ್ತು ಭಾಷಾ ವಿಜ್ಞಾನ –(೬೦ ಅಂಕಗಳು) ೬೦ ಗಂಟೆಗಳ ಪಾಠ

ಎ. ಶಬ್ದ ಸ್ಮೃತಿ, ಶಬ್ದ ಮಣಿ ದರ್ಪಣ ಹಾಗೂ ಶಬ್ದಾನುಶಾಸನ (ಹತ್ತು ಅಂಕಗಳು)

ಬಿ. ಶಬ್ದಮಣಿ ದರ್ಪಣ – ಶುದ್ಧಗೆಗಳು, ಸಂಧಿ, ಸಮಾಸ, ಲಿಂಗ, ವಿಭಕ್ತಿ, ವಚನ ಹಾಗೂ ಕನ್ನಡದ ಅಸಾಧಾರಣ ಲಕ್ಷಣಗಳು (ಮುವತ್ತು ಅಂಕಗಳು)

ಸಿ. ಭಾಷಾ ವಿಜ್ಞಾನ : ಭಾಷೆ ಎಂದರೇನು? ಭಾಷೆಯ ಸ್ವರೂಪ ಹಾಗೂ ಭಾಷೆಯ ವರ್ಗೀಕರಣ(ಹತ್ತು ಅಂಕಗಳು)

ಡಿ. ಕನ್ನಡ ಭಾಷೆ : ಧ್ವನಿ, ಧ್ವನ್ಯಂಗಗಳು, ಕನ್ನಡ ಧ್ವನಿಮಾ, ಕನ್ನಡ ಆಕೃತಿಮಾ, ಕನ್ನಡ ಮತ್ತು ಸಂಸ್ಕೃತ, ಕನ್ನಡ ಮತ್ತು ಇಂಗ್ಲೀಷ್ (ಮುವತ್ತು ಅಂಕಗಳು)

ಪರಮಾರ್ಶನ ಗ್ರಂಥಗಳು

೧. ಶಬ್ದಮಣಿ ದರ್ಪಣ ವಿಳಾಸ : ಡಾ. ಶಿವಾನಂದ ವಿರಕ್ತಮಠ
೨. ಶಬ್ದಮಣಿ ದರ್ಪಣ : (ಸಂ) ಡಿ ಎಲ್ ನರಸಿಂಹಾಚಾರ್
೩. ಕನ್ನಡ ಭಾಷಾ ವ್ಯಾಸಂಗ : ಸಂಗಮೇಶ ಸವದತ್ತಿಮಠ
೪. ದ್ರಾವಿಡ ಭಾಷಾ ವ್ಯಾಸಂಗ : ಸಂಗಮೇಶ ಸವದತ್ತಿಮಠ

ಮಾದರಿ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ

ಪ್ರಶ್ನೆ – ೧ ಕನ್ನಡ ವ್ಯಾಕರಣ ಪರಂಪರೆಗೆ ಸಂಬಂಧಿಸಿದ ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ ೧೦ ಅಂಕಗಳು
(ಎರಡು ಪ್ರಶ್ನೆಗಳನ್ನು ಕೊಟ್ಟು ಒಂದಕ್ಕೆ ಉತ್ತರಿಸಲು ಹೇಳುವುದು)

ಪ್ರಶ್ನೆ – ೨. ಅ) ವ್ಯಾಕರಣಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ ೧೦ ಅಂಕಗಳು
(ಎರಡು ಪ್ರಶ್ನೆಗಳನ್ನು ಕೊಟ್ಟು ಒಂದಕ್ಕೆ ಉತ್ತರಿಸಲು ಹೇಳುವುದು)
ಆ) ವ್ಯಾಕರಣಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಬೇಕಾದ ಎರಡಕ್ಕೆ ಟಿಪ್ಪಣೆ ಬರೆಯುವುದು. ೧೦ ಅಂಕಗಳು
(ನಾಲ್ಕು ಪ್ರಶ್ನೆಗಳನ್ನು ಕೊಟ್ಟು ಎರಡಕ್ಕೆ ಉತ್ತರಿಸಲು ಹೇಳುವುದು)

ಪ್ರಶ್ನೆ – ೩. ಭಾಷೆಗೆ ಸಂಬಂಧಿಸಿದ ಒಂದು ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ ೧೦ ಅಂಕಗಳು
(ಎರಡು ಪ್ರಶ್ನೆಗಳನ್ನು ಕೊಟ್ಟು ಒಂದಕ್ಕೆ ಉತ್ತರಿಸಲು ಹೇಳುವುದು)

ಪ್ರಶ್ನೆ – ೪. ಅ) ಕನ್ನಡ ಭಾಷೆಗೆ ಸಂಬಂಧಿಸಿದ ಒಂದು ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ ೧೦ ಅಂಕಗಳು
(ಎರಡು ಪ್ರಶ್ನೆಗಳನ್ನು ಕೊಟ್ಟು ಒಂದಕ್ಕೆ ಉತ್ತರಿಸಲು ಹೇಳುವುದು)
ಆ) ಕನ್ನಡ ಭಾಷೆಗೆ ಸಂಬಂಧಿಸಿದಂತೆ ಬೇಕಾದ ಮೂರಕ್ಕೆ ಟಿಪ್ಪಣೆ ಬರೆಯುವುದು ೧೫ ಅಂಕಗಳು
(ಐದು ಪ್ರಶ್ನೆಗಳನ್ನು ಕೊಟ್ಟು ಮೂರಕ್ಕೆ ಉತ್ತರಿಸಲು ಹೇಳುವುದು)

ಪ್ರಶ್ನೆ – ೫. ಒಂದೇ ವಾಕ್ಯದಲ್ಲಿ ಉತ್ತರಿಸುವುದು ೧೫ ಅಂಕಗಳು
(ಕನ್ನಡ ವ್ಯಾಕರಣಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಹತ್ತು ಪ್ರಶ್ನೆಗಳು ಹಾಗೂ ಭಾಷಾ ವಿಜ್ಞಾನಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಐದು ಪ್ರಶ್ನೆಗಳು)

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ಬಿ.ಎ. ಐಚ್ಛಿಕ ಕನ್ನಡ ತರಗತಿಗಳಿಗೆ
ಆರನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.
ಐಚ್ಛಿಕ ಕನ್ನಡ (Discipline Specific Course 1F1) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

೧. ನಾಲ್ಕನೆಯ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ಅಲಂಕಾರ ಮತ್ತು ಛಂದಸ್ಸನ್ನು ಕುರಿತು ಸ್ಥೂಲವಾಗಿ ಪರಿಚಯಿಸುವುದು ಮತ್ತು ಹತ್ತು ಭಾವಗೀತೆಗಳನ್ನು ಹಾಗೂ ಭಾವಗೀತೆ ಪ್ರಕಾರದ ಸ್ವರೂಪ ಹುಟ್ಟು ಬೆಳವಣಿಗೆಯನ್ನು ಕುರಿತು ವಿಶೇಷವಾಗಿ ಅಧ್ಯಯಿನಿಸುವುದು.

೨. ಈ ಪತ್ರಿಕೆಗೆ ಒಟ್ಟು ಪಾಠದ ಅವಧಿ ೮೦ ಗಂಟೆಗಳಾಗಿರುತ್ತವೆ. ವಾರಕ್ಕೆ ೦೫ ಗಂಟೆಗಳ ಬೋಧನೆಯನ್ನು ನಿಗದಿಪಡಿಸಲಾಗಿದೆ. ಒಟ್ಟು ಅಂಕಗಳು ೧೦೦ ಆಂತರೀಕ ಗುಣಾಂಕಕ್ಕೆ ೨೦ಅಂಕಗಳು (ಹಾಜರಾತಿಗೆ ೦೩, ಮೊದಲ ಕಿರು ಪರೀಕ್ಷೆಗೆ ೦೪, ಎರಡನೆಯ ಕಿರು ಪರೀಕ್ಷಗೆ ೧೦, ನಿಯೋಜಿತ ಕಾರ್ಯಕ್ಕೆ ೦೩ ಅಂಕಗಳು) ಹಾಗೂ ಥಿಯರಿ ಪರೀಕ್ಷೆಗೆ ೮೦ ಅಂಕಗಳು.

ಪಠ್ಯಕ್ರಮ

೧. ಸಂಸ್ಕೃತಿ

ಎ. ಸಂಸ್ಕೃತಿ :ಹಾಗೆಂದರೇನು? (ಲೇಖನ) ರಹಮತ್ ತರಿಕೆರೆ

ಬಿ. ಕನ್ನಡ ಸಂಸ್ಕೃತಿ ನಮ್ಮ ಹೆಮ್ಮೆ (ಲೇಖನ) : ಡಾ. ಎಂ. ಚಿದಾನಂದ ಮೂರ್ತಿ

೨. ಸಂಶೋಧನೆ

ಎ. ಸಂಶೋಧನೆ : ಅರ್ಥ, ಸ್ವರೂಪ, ವಿನ್ಯಾಸ ಮತ್ತು ಪ್ರಕಾರಗಳು : (ಲೇಖನ) ಡಾ. ಸಂಗಮೇಶ ಸವದತ್ತಿಮಠ.

ಬಿ. ಪಂಪನ ಧರ್ಮಪುರ : ಕ್ಷೇತ್ರಕಾರ್ಯ (ಲೇಖನ) : ಡಾ. ಎಂ. ಎಂ. ಕಲಬುರ್ಗಿ

೩. ವಿಮರ್ಶೆ

ಎ. ವಿಮರ್ಶೆಯ ದಾರಿ (ಲೇಖನ) : ಡಾ. ಜಿ. ಎಸ್. ಶಿವರುದ್ರಪ್ಪ

ಬಿ. ತತ್ವಪದಕಾರರ ತಾತ್ವಿಕತೆಯ ಸ್ವರೂಪ (ಲೇಖನ) : ಡಾ. ಎಸ್. ನಟರಾಜ ಬೂದಾಳು.

೪. ಸಂವಹನ

ಎ. ಸಂವಹನ : ಅರ್ಥ, ವ್ಯಾಪ್ತಿ (ಲೇಖನ) : ಡಾ. ಡಿ. ವಿ. ಪರಮಶಿವಮೂರ್ತಿ.

ಬಿ. ಪತ್ರಿಕೋಧ್ಯಮದ ಸಾಮ್ರಾಜ್ಞಿಯರು (ಲೇಖನ) : ಶ್ರೀಮತಿ. ಧರಣಿದೇವಿ ಮಾಲಗತ್ತಿ.

೫. ಆಕರಶಾಸ್ತ್ರ

ಎ. ಶಾಸನ ಎಂದರೇನು ? ಅದರ ಪ್ರಕಾರಗಳು (ಲೇಖನ) : ಡಾ. ಹು. ಕಾ. ಜಯದೇವ.

ಬಿ. ಹಸ್ತಪ್ರತಿಗಳ ಅರ್ಥ, ಪ್ರಕಾರ, ರಚನೆಯ ಸಾಮಗ್ರಿಗಳು (ಲೇಖನ) : ಡಾ. ಕೆ. ರವಿಂದ್ರನಾಥ.

(ರಾಣಿ ಚನ್ನಮ್ಮ ವಿಶ್ವವಿದ್ಯಾಲಯದ ಪ್ರಸಾರಾಂಗವು **'ಸಾಹಿತ್ಯ ಅಧ್ಯಯನದ ಆಕರಗಳು'** ಎನ್ನುವ ಪಠ್ಯವನ್ನು ಪ್ರಕಟಿಸಿರುತ್ತದೆ. ಪಠ್ಯಭಾಗದ ಕೊನೆಯಲ್ಲಿ ಮಾದರಿ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆಯನ್ನು ನೀಡಲಾಗಿದೆ.)

Or

ಬಿ.ಎ. ಐಚ್ಛಿಕ ಕನ್ನಡ ತರಗತಿಗಳಿಗೆ
ಆರನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.
ಐಚ್ಛಿಕ ಕನ್ನಡ (Discipline Specific Course 1F2) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

೧. ನಾಲ್ಕನೆಯ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ಅಲಂಕಾರ ಮತ್ತು ಛಂದಸ್ಸನ್ನು ಕುರಿತು ಸ್ಥೂಲವಾಗಿ ಪರಿಚಯಿಸುವುದು ಮತ್ತು ಹತ್ತು ಭಾವಗೀತೆಗಳನ್ನು ಹಾಗೂ ಭಾವಗೀತೆ ಪ್ರಕಾರದ ಸ್ವರೂಪ ಹುಟ್ಟು ಬೆಳವಣಿಗೆಯನ್ನು ಕುರಿತು ವಿಶೇಷವಾಗಿ ಅಧ್ಯಯಿನಿಸುವುದು.

೨. ಈ ಪತ್ರಿಕೆಗೆ ಒಟ್ಟು ಪಾಠದ ಅವಧಿ ೮೦ ಗಂಟೆಗಳಾಗಿರುತ್ತವೆ. ವಾರಕ್ಕೆ ೦೫ ಗಂಟೆಗಳ ಬೋಧನೆಯನ್ನು ನಿಗದಿಪಡಿಸಲಾಗಿದೆ. ಒಟ್ಟು ಅಂಕಗಳು ೧೦೦ ಆಂತರೀಕ ಗುಣಾಂಕಕ್ಕೆ ೨೦ಅಂಕಗಳು (ಹಾಜರಾತಿಗೆ ೦೩, ಮೊದಲ ಕಿರು ಪರೀಕ್ಷೆಗೆ ೦೪, ಎರಡನೆಯ ಕಿರು ಪರೀಕ್ಷಗೆ ೧೦, ನಿಯೋಜಿತ ಕಾರ್ಯಕ್ಕೆ ೦೩ ಅಂಕಗಳು) ಹಾಗೂ ಥಿಯರಿ ಪರೀಕ್ಷೆಗೆ ೮೦ ಅಂಕಗಳು.

ಪಠ್ಯಕ್ರಮ

೧. ಕನ್ನಡದ ಪ್ರಮುಖ ಪಠ್ಯಗಳು (೮೦ ಅಂಕಗಳು) ೮೦ ಗಂಟೆಗಳ ಪಾಠ

ಎ. ಚೋಮನದುಡಿ – ಶಿವರಾಮ ಕಾರಂತ (ಕಾದಂಬರಿ)

ಬಿ. ತದ್ರೂಪಿ – ಪ್ರಸನ್ನ (ನಾಟಕ)

ಸಿ. ಗಂಗೆಯ ಶಿಖರಗಳಲ್ಲಿ – ಜಿ. ಎಸ್. ಶಿವರುದ್ರಪ್ಪ (ಪ್ರವಾಸ ಕಥನ)

ಡಿ. ಕಾಳಿದಾಸ ಮತ್ತು ಷೇಕ್ಸಪೀಯರ್ – ಕೃಷ್ಣಮೂರ್ತಿ (ವಿಮರ್ಶೆ)

ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ ಮಾದರಿ

೧. 'ಚೋಮನದುಡಿ' ಕಾದಂಬರಿಗೆ ಸಂಬಂಧಿಸಿದ ಎರಡು ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು. – ೧೦ ಅಂಕಗಳು

೨. 'ತದ್ರೂಪಿ' ನಾಟಕಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಪ್ರಬಂಧ ಮಾದರಿ ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು. – ೧೦ ಅಂಕಗಳು

೩. 'ಗಂಗೆಯ ಶಿಖರಗಳಲ್ಲಿ' ಪ್ರವಾಸ ಕಥನಕ್ಕೆ ಸಂಬಂಧಿಸಿದ ಪ್ರಬಂಧ ಮಾದರಿ ಎರಡು ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು. – ೧೦ ಅಂಕಗಳು

೪ 'ಕಾಳಿದಾಸ ಮತ್ತು ಷೇಕ್ಸಪೀಯರ್' ವಿಮರ್ಶೆಗೆ ಸಂಬಂಧಿಸಿದ ಎರಡು ಪ್ರಬಂಧ ಮಾದರಿ ಪ್ರಶ್ನೆ ಕೇಳಿ ಒಂದಕ್ಕೆ ಉತ್ತರ ಬರೆಯಲು ಹೇಳುವುದು. – ೧೦ ಅಂಕಗಳು

೫. ಬೇಕಾದ ಎರಡಕ್ಕೆ ಟಿಪ್ಪಣಿ ಬರೆಯುವುದು (ಪ್ರತಿಯೊಂದು ಪಠ್ಯದಿಂದ ಒಂದು ಟಿಪ್ಪಣಿ) – ೧೦ ಅಂಕಗಳು

೬. ಬೇಕಾದ ಮೂರಕ್ಕೆ ಸಂದರ್ಭದೊಡನೆ ಸ್ಪಷ್ಟೀಕರಿಸುವುದು (ಪ್ರತಿಯೊಂದು ಪಠ್ಯದಿಂದ ಕನಿಷ್ಠ ಒಂದು R.C) – ೧೦ ಅಂಕಗಳು

೭. ಒಂದು ವಾಕ್ಯದಲ್ಲಿ ಉತ್ತರಿಸುವುದು (ಹದಿನಯದು ಪ್ರಶ್ನೆಗಳು ಪ್ರತಿಯೊಂದು ಗದ್ಯದಿಂದ ಕನಿಷ್ಠ ಮೂರು ಗರಿಷ್ಠ ನಾಲ್ಕು ಪ್ರಶ್ನೆಗಳು)

ಬಿ.ಎ. ತರಗತಿಗಳಿಗೆ
ಮೂರನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.
ಕನ್ನಡ (SKILL ENHANCEMENT COURSE) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

೧. ಮೂರನೆಯ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ಸ್ಪರ್ಧಾತ್ಮಕ ಕನ್ನಡವನ್ನು ಕುರಿತು ತಿಳಿಸುವುದು.
೨. ಕರ್ನಾಟಕದ ಸಾಮಾನ್ಯ ಜ್ಞಾನವನ್ನು ಪಠ್ಯಕ್ರಮವನ್ನಾಗಿಸುವುದು.
೩.

ಮಾದರಿ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ ಮತ್ತು ಅಂಕಗಳ ವಿವರ

1) ಬಹುಆಯ್ಕೆ ಮಾದರಿಯ ಸ್ಪರ್ಧಾತ್ಮಕ ಕನ್ನಡವನ್ನು ಕುರಿತು ನೂರು ಪ್ರಶ್ನೆ

ಬಿ.ಎ. ಐಚ್ಛಿಕ ಕನ್ನಡ ತರಗತಿಗಳಿಗೆ
ನಾಲ್ಕನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.
ಕನ್ನಡ (SKILL ENHANCEMENT COURSE) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

೧. ನಾಲ್ಕನೆಯ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ಕೌಶಲ್ಯ ಕನ್ನಡವನ್ನು ಕುರಿತು ತಿಳಿಸುವುದು.
೨. ಕನ್ನಡದ ಭಾಷೆ ಮತ್ತು ವ್ಯಾಕರಣವನ್ನು ಕುರಿತು ಕನ್ನಡದ ಜ್ಞಾನವನ್ನು ಪಠ್ಯಕ್ರಮವನ್ನಾಗಿಸುವುದು.

ಮಾದರಿ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ ಮತ್ತು ಅಂಕಗಳ ವಿವರ

2) ಬಹುಆಯ್ಕೆ ಮಾದರಿಯ ಕೌಶಲ್ಯ ಕನ್ನಡವನ್ನು ಕುರಿತು ನೂರು ಪ್ರಶ್ನೆಗಳು

ಬಿ.ಎ. ಐಚ್ಛಿಕ ಕನ್ನಡ ತರಗತಿಗಳಿಗೆ
ಐದನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.
ಕನ್ನಡ (SKILL ENHANCEMENT COURSE) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

೧. ಐದನೆಯ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ಭಾಷಾಂತರ ಕೌಶಲ್ಯವನ್ನು ಕುರಿತು ತಿಳಿಸುವುದು.
೨. ಕನ್ನಡದಿಂದ ಇಂಗ್ಲೀಷ ಮತ್ತು ಇಂಗ್ಲೀಷನಿಂದ ಕನ್ನಡಕ್ಕೆ ತಲಾ ಹತ್ತು ಭಾಷಾಂತರ ಮಾದರಿಗಳನ್ನು ನೀಡಿ ಭಾಷಾಂತರ ಕೌಶಲ್ಯವನ್ನು ಬೆಳೆಸುವುದು.

ಮಾದರಿ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ ಮತ್ತು ಅಂಕಗಳ ವಿವರ

3) ಹತ್ತು ಸಾಲಿನ ಹತ್ತು ಪ್ಯಾರಾಗಳ ಕನ್ನಡ ಬರವಣಿಗೆಯನ್ನು ಇಂಗ್ಲೀಷಗೆ ಭಾಷಾಂತರಿಸುವುದು. ಹಾಗೇಯೇ ಇಂಗ್ಲೀಷನ ಹತ್ತು ಪ್ಯಾರಾಗಳ ಬರವಣಿಗೆಯನ್ನು ಕನ್ನಡಕ್ಕೆ ಭಾಷಾಂತರಿಸುವುದು. ಹತ್ತನ್ನು ಕೇಳಿ ಐದನ್ನು ಬರೆಯಲು ತಿಳಿಸುವುದು.

ಬಿ.ಎ. ಐಚ್ಛಿಕ ಕನ್ನಡ ತರಗತಿಗಳಿಗೆ
ಆರನೆಯ ಸೆಮಿಸ್ಟರ್ ಸಿ.ಬಿ.ಸಿ.ಎಸ್.
ಕನ್ನಡ (SKILL ENHANCEMENT COURSE) ಪತ್ರಿಕೆಯ ಪಠ್ಯಕ್ರಮ

೧. ಆರನೆಯ ಸೆಮಿಸ್ಟರ್‌ನಲ್ಲಿ ಪತ್ರ ಬರವಣಿಗೆ, ಪ್ರಬಂಧ ರಚನೆ, ವರದಿಗಾರಿಕೆ ಮತ್ತು ಸಂಪಾದನಾ ಕೌಶಲ್ಯವನ್ನು ಕುರಿತು ತಿಳಿಸುವುದು.
೨. ತಲಾ ಹತ್ತು ಮಾದರಿಗಳನ್ನು ಪರಿಚಯಿಸುವುದು.

ಮಾದರಿ ಪ್ರಶ್ನೆ ಪತ್ರಿಕೆ ಮತ್ತು ಅಂಕಗಳ ವಿವರ

1 ಪ್ರತಿ ವಿಷಯಗಳಿಗೆ ಮೂರು ಪ್ರಶ್ನೆಗಳನ್ನು ಕೇಳಿ ಒಟ್ಟು ಐದು ಪ್ರಶ್ನೆಗಳಿಗೆ ಉತ್ತರಿಸಲು ಕೇಲುವುದು.

RANI CHANNAMMA UNIVERSITY
BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF SCIENCE

MATHEMATICS

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

CHOICE BASED CREDIT SYSTEM [CBCS]
B.Sc. Program with Mathematics Optional Subject

B.Sc.: Mathematics as one of the optional subject revised syllabus under CBCS (w.e.f. 2020-21 and onwards)								
Sem	Part	Paper Code	Title of Paper	Hours/ Week	Marks			Subject Credits
					IA	Exam	Total	
I	Part – 1 DSC	MATDSCT 1.1	Algebra–I and Calculus–I	4	20	80	100	3
		MATDSCP 1.1	Practicals-I	3	10	40	50	1
		Total : Hours / Credits		7			150	4
II	Part – 1 DSC	MATDSCT 2.1	Calculus–II and 3-Dimensional Geometry	4	20	80	100	3
		MATDSCP 2.1	Practicals-II	3	10	40	50	1
		Total : Hours / Credits		7			150	4

B.Sc.: Mathematics as one of the optional subject revised syllabus under CBCS (w.e.f. 2021-22 and onwards)								
Sem	Part	Paper Code	Title of Paper	Hours/ Week	Marks			Subject Credits
					IA	Exam	Total	
III	Part – 1 DSC	MATDSCT3.1	Algebra-II, Real analysis and Differential Equations	4	20	80	100	3
		MATDSCP 3.1	Practicals-III	3	10	40	50	1
	Part – 2 SEC	MATSECT 3.2	Set Theory and Theory of Equations	2	10	40	50	2
		Total : Hours / Credits		9			200	6
IV	Part – 1 DSC	MATDSCT 4.1	Vector Calculus, Infinite Series and Deferencial Equations	4	20	80	100	3
		MATDSCP 4.1	Practicals-IV	3	10	40	50	1
	Part – 2 SEC	MATSECT 4.2	Fourier Transforms	2	10	40	50	2
		Total : Hours / Credits		9			200	6

CHOICE BASED CREDIT SYSTEM [CBCS]

B.Sc.: Mathematics as one of the optional subject revised syllabus under CBCS (w.e.f. 2022-23 and onwards)								
Sem	Part	Paper Code	Title of Paper	Hours/ Week	Marks			Subject Credits
					IA	Exam	Total	
V	Part – 1 DSE	MATDSET 5.1	Real Analysis	4	20	80	100	3
		MATDSEP 5.1	Practicals-V	3	10	40	50	1
		MATDSET 5.2A (Elective-I)	Numerical Analysis and Difference Equations	4	20	80	100	3
		MATDSEP 5.2A (Elective-I)	Practicals	3	10	40	50	1
		MATDSET5.2B (Elective-II)	Dynamics and Calculus of Variation	4	20	80	100	3
		MATDSEP 5.2B (Elective-II)	Practicals	3	10	40	50	1
	Part – 2 SEC	MATSECT 5.3	Number theory	2	10	40	50	2
		Total : Hours / Credits		16			350	10
Note: Students have to choose either Elective-I or Elective-II								
VI	Part – 1 DSE	MATDSET 6.1	Complex Analysis and Ring Theory	4	20	80	100	3
		MATDSEP 6.1	Practicals	3	10	40	50	1
		MATDSET 6.2A (Elective-III)	Differential Equations	4	20	80	100	3
		MATDSEP 6.2A (Elective-III)	Practicals	3	10	40	50	1
		MATDSET6.2B (Elective-IV)	Topology and Laplace Transforms	4	20	80	100	3
		MATDSEP 6.2B (Elective-IV)	Practicals	3	10	40	50	1
	Part – 2 SEC	MATSECT 6.3	Graph Theory	2	10	40	50	2
		Total : Hours / Credits		17			350	10
Note: Students have to choose either Elective-III or Elective-IV								

B.Sc. Program with Mathematics Optional Subject

(T: Theory, P: Practical, CC/EA: Co-curricular/Extension Activities
AECC: Ability Enhancement Compulsory Course, DSC: Discipline Specific Course
DSE: Discipline Specific Elective, SEC: Skill Enhancement Course)

Note: Duration of examinations is 03 Hrs for 80 Marks theory and 02 hrs for 40 marks theory. For practical's duration of examination is 03 Hrs.

B.Sc I Semester-Mathematics

Paper Code: MATDSCT 1.1	**Paper Title:** Algebra–I and Calculus–I
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT-I

MATRICES AND DETERMINANTS

Recapitulation of Matrices, Symmetric matrices and Skew symmetric matrices, Elementary Transformations, Rank of a Matrix, Reduction to Normal forms, Inverse of matrix by elementary transformations, Solution of System of Linear equations.

Determinant: Expansion determent of fourth order, Reciprocal determinants Symmetric and Skew-Symmetric determinants. **12 Hours.**

UNIT-II

REAL NUMBER SYSTEM: Properties of real number system, Inequalities & absolute values, l.u.b, g.l.b and Archimedean properties of real numbers.

LIMITS AND CONTINUITY : Recapitulation of limits and continuity.Algebra of limits (with proofs).Properties of Continuous functions. Boundedness of continuous functions.

12 Hours

UNIT-III

Intermediate value theorem, Borel Covering theorem (statement only).Uniform continuity.L-Hospital's rule (statement only). Indeterminate forms of 0/0, ∞/∞, $0\times\infty$, $\infty - \infty$, 0^0, $1^\infty$and ∞^0. **12 Hours**

UNIT-IV

HIGHER ORDER DERIVATIVES

The n^{th} derivative of $(ax + b)^n$, $1/ax+b$, $\log (ax+b)$, e^{ax+b}, $\sin(ax+b)$, $\cos(ax+b)$,$e^{ax} \sin (bx+c)$, $e^{ax}\cos (bx+c)$, Leibntz's Rule for n^{th}derivative of a product. **12 Hours**

UNIT-V

MEAN VALUE THEOREMS

Rolle's Theorem, Lagrange's Mean Value Theorem, Cauchy's Mean Value Theorem,
Taylor's Theorem (with Sclomilch and Rouche's form of reminder), Maclaurin's Series **12 Hours.**

Reference Books:

1. Deferential Calculus – Shantinarayan and Mittal
2. Mathematical Analysis-Shantinarayan
3. First Course in Real Analysis-M.k.Singal and Asha Rani
4. Text book of B.sc Mathematics- G.K. Raganath
5. Matrices and determinants- M.L. Khanna

B.Sc I Semester-Mathematics

Paper Code: MATDSCP 1.1	**Paper Title:** Practicals:1
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

- Introduction to SciLab / Maxima and commands related to the topic.

1. Computation of Sum, Difference and Product of two Matrices.
2. Computation of trace and transpose of matrices.
3. Computation of rank of matrix and row reduced echelon form.
4. Computation of inverse of a matrix using Cayley – Hamilton theorem.
5. Solution of system of homogeneous and Non-homogeneous equations.
6. Finding n^{th} derivative of e^{ax}, trigonometric and hyperbolic functions.
7. Finding n^{th} derivative of algebraic functions and Logarithmic functions.
8. Finding n^{th} derivative of Finding n^{th} derivatives of $e^{ax}\sin(ax+b)$, $e^{ax}\cos(ax+b)$.
9. Examples on Rolle's theorem, Lagrange's and Cauchy's mean value theorem.
10. Taylor's and Mac Laurin's series expansion of a given function.

NOTE: Use the SciLab / MAXIMA Open – source Software to execute the practical problems.
SciLab: is an open-source software and it can be downloaded from http://www.scilab.org/download. Some materials for sciLab can be found on http://wiki.scilab.org/Tutorialsarchives.
MAXIMA: is an Open source Computer Algebra System for solving typical calculus problems. The latest version is available on http://maxim.source.forge,net/documentation.html

B.Sc II Semester-Mathematics

Paper Code: MATDSCT 2.1	**Paper Title: C**alculus–II and 3–Dimensional Geometry
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT-I

Polar coordinates of a point and polar curve. Angle between the radius vector and the tangent at a point on the curve. Angle of intersection of two curves. Polar and pedal equation of the curves. Polar sub-tangent and polar sub - normal.

12 hours

UNIT-II

Derivative of arc length, Curvature, Radius of curvature in Cartesian, Parametric, polar and pedal forms. Centre of curvature. Evolutes and Involutes.

12 hours

UNIT-III

Limits, continuity of functions of two variables. Partial derivatives, higher order partial derivatives, total derivatives and total differentials, Homogeneous functions, Euler's theorem on homogeneous functions.

12hours

UNIT-IV

Reduction formulae for integration of $\sin^n x$, $\cos^n x$, $\tan^n x$, $\cot^n x$, $\sec^n x$, $\operatorname{cosec}^n x$, $\sin^m x \cos^n x$, $x^n e^{ax}$, $x^m (\log x)^n$.

12 hours

UNIT-V

Sphere: Equation of a sphere, section of a sphere by a plane, Equation of a sphere through a circle, Equation of a sphere through two given points as ends of a diameter. Equation to a tangent plane of a sphere, Condition for tangency, Orthogonality of two spheres.
Cone: Equation of a cone, enveloping cone of a sphere, Right circular cone.
Cylinder: Equation of cylinder, enveloping cylinder of a sphere, Right circular cylinder.

12 hours

Books of reference:

1. Differential Calculus : Santinarayan and Dr. P.K. Mittal
2. Integral Calculus : Santinarayan and Dr. P.K. Mittal
3. Differential Calculus and integral Calculus : N.P. Bali
4. Text Book of B.Sc Mathematics: G. K. Ranganath
5. Differential Calculus and integral Calculus :P. N. Chatterji.
6. Analytical Solid geometry: Santinarayan and Dr. P.K. Mittal
7. Solid Geometry: N.P. Bali

B.Sc II Semester-Mathematics

Paper Code: MATDSCP 2.1	**Paper Title:** Practicals – 2
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

1. Writing simple program to generate: sequence of first 20 i)oddnos, ii) even nos, iii) prime nos. write a program to find smallest and largest nos from given two numbers.
2. Tracing of Cartesian curves.
3. Tracing of parametric curves.
4. Tracing of polar curves.
5. Tracing of curves in 3D.
6. Computation of arc length of Cartesian, Parametric curves
7. Computation of arc length of Polar form
8. Computation of volume of Cartesian and Parametric curves.
9. Computation of volume of Polar form
10. Evaluation of definite integrals and Reduction formulae.

NOTE: Use the SciLab / MAXIMA Open – source Software to execute the practical problems.
SciLab: is an open-source software and it can be downloaded from http://www.scilab.org/download. Some materials for sciLab can be found on http://wiki.scilab.org/Tutorialsarchives.
MAXIMA: is an Open source Computer Algebra System for solving typical calculus problems. The latest version is available on http://maxim.source.forge,net/documentation.html

B.Sc III Semester-Mathematics

Paper Code: MATDSCT3.1 and		**Paper Title:** Algebra-II, Real Analysis Differential Equations
Teaching Hours: 4 Hrs / Week		**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs		**Credits: 03**

UNIT-I

Real Analysis-I: Jacobians, Properties and examples, Lagrange's mean value theorem for functions of two variables. Taylor's (only statement) and Maclaurian's theorems for two variables. Maxima and Minima of two and three variables, Necessary and sufficient condition for extreme values of two variables.

12 Hours

UNIT-II

Sequences: Sequences, Limit of a sequences, Bounded and unbounded sequences, Convergent, Divergent, and Oscillatory sequences. Algebra of convergent sequences. Monotonic sequences. Theorems on monotonic sequences.

12 Hours

UNIT-III

Cauchy's sequences, Cauchy's first and second theorems on limits. Cauchy's criterion for convergence of sequences.

12 Hours

UNIT-IV

Group Theory-I: Groups, Abelian group, Standard examples of groups, Properties of groups, Semi groups, Subgroups and its properties, Permutation group. Cyclic groups & its properties, Cosets. Lagrange's theorem, Euler's theorem and Fermet's theorem.

12 Hours

UNIT-V

Differential equation-I: Bernoulli's form, Exact equations, Necessary and sufficient condition for the equation to be exact, solution of differential equation by finding a suitable integrating factor. Differential equations of the first order higher degree, Solvable for p, Solvable for x, Solvable for y, Clairaut's equations reducible to Clairaut's form.

12 Hours

Books for reference:

(1) Shanti Narayana and P K Mittal: Textbook of Mathematical analysis.

(2) Nisha Rani and Gupta: Textbook of real analysis.

(3) N P Bali: Real analysis(Golden Series)

(4) J N Sharma and A R Vasistha: Real analysis.

(5) G. K. Ranganath: A text book of College Mathematics.

(6) D. Murray: Introductory Course in Differential Equations.

(7) Ayres F: Differential Equations.

(8) Herstein I. N: Topics in Algebra.

B.Sc III Semester-Mathematics

Paper Code: MATDSCP 3.1	**Paper Title:** Practicals – 3
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

1. Obtaining partial derivatives of some standard functions.
2. Verification of Euler's theorem, its extension and Jacobian.
3. Examining the convergence of sequences.
4. Example on $\lim_{n\to\infty}\left(1+\frac{1}{n}\right)^n = e$.
5. Verification of binary operations
6. Computing the Identity and Inverse elements of a group.
7. Finding the order of elements of groups and the generators of a cyclic group.
8. Verification of Lagrange's theorem.
9. Solution of differential equations which are solvable for x, y,p.
10. To find the singular solutions by using Clairaut's form.

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B.Sc III Semester-Mathematics

Paper Code: MATSECT 3.2	**Paper Title:** Set theory and Theory of Equations
Teaching Hours: 2 Hrs	**Marks:** Theory-40+IA-10
Teaching Hours: 30 Hours	**Credits: 01**

UNIT-I

SET THEORY

Equivalence relations, Partition of a Set, Arbitrary unions and intersections. De Morgan'slaws, Countable and Uncountable sets.

15 Hours

UNIT-II

THEORY OF EQUATIONS :

Polynomial equation of nth degree in one variable, Euclidean algorithm, Reminder Theorem, Factor Theorem, Fundamental Theorem of Algebra, Relation between the roots andcoefficient of general polynomial equation in one variable, Synthetic division. If one of the root of an equation $a_0x^n+a_1x^{n-1}+-------+a_n$ has one of its rational root is $p|q$, then p is an exactdivisor of an and q is an exact divisor of a0.Solution of cubic and Bi- quadratic equations.

15 Hours

Books for reference:

1. Modern Algebra- D.C. Pavate
2. Algebra -Vasistha

B.Sc IV Semester-Mathematics

and	**Paper Code:** MATDSCT 4.1	**Paper Title:** Vector Calculus, Infinite Series Deferential Equations
	Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
	Teaching Hours: 60Hrs	**Credits:03**

UNIT-I

Dot and cross product of vectors, Ordinary derivatives of vectors. Continuity and differentiability of a vector function. Derivatives of sum. Dot product, Cross product and Triple product of vectors. Constant vector functions, Partial differentiation of vector functions. The vector differential operator del. The gradient of a scalar point function, The directional derivative of function. Properties of gradient of vector function. Divergence and Curl of a vector point function. Properties of divergence and curl. Solenoidal and irrotational vectors.

12 Hours

UNIT-II

Infinite series I: Infinite series and examples. Convergent, Divergent and Oscillatory series. Partial sum of series. Series of non-negative terms, Necessary and sufficient condition for convergence, Cauchy's general principle of convergence. Geometric series. The P-series(Harmonic), Comparison tests (different forms).D'Alembert's ratio test, Raabe's test,

12 Hours

UNIT-III

Infinite series II: Cauchy's integral test and Root test. Absolute convergence and conditional convergence of series. Alternating series, Leibnitz theorem, Uniform convergence.

12 Hours

UNIT-IV

Differential Equations II:Linear differential equation of n^{th} order with constant co-efficients. Particular integral when RHS is of the form e^{ax}, sinax, cosax,x^n,e^{ax}vand xv where v is function of *x*.

12 Hours

UNIT-V

Differential Equations III: Homogeneous linear differential equation of n^{th} order and Equation reducible to the homogeneous linear form, higher order exact differential equations.

12 Hours

BOOKS FOR REFERENCE:

(1) N. P. Bali: Differential equations.
(2) Shanti Narayana: Mathematical Analysis.
(3) G. K. Ranganath: Textbook of B.Sc. Mathematics.
(4) N. Rudraiah and others: College Mathematics.
(5) Murray R. Spiegel: VECTOR ANALYSIS.
(6) WalterRudin: Principles of Mathematical analysis.
(7) N. P. Bali: Real Analysis.

B.Sc IV Semester-Mathematics

Paper Cade: MATDSCP 4.1	**Paper Title:** Practicals – 4
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

1. Verification of Homomorphism and Isomorphism of groups.
2. Verification of exponential series.
3. Verification of Logarithmic series.
4. Verification of Binomial series.
5. Examples on Cauchy's root test, Raabe's and Ratio test.
6. Examples on convergence of alternating series using Leibnitz's theorem.
7. Finding the C.F of linear differential equations with constant coefficients and plot the solutions.
8. Finding the C.F of homogeneous differential equations with constant coefficients and plot the solutions.
9. Finding the P.I of differential equations up to second order and plot the solutions.

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B.Sc IV Semester-Mathematics

Paper Code: MATSEC 4.2	**Paper Title:** Fourier Transforms
Teaching Hours: 02 Hrs / Week	**Marks:** Theory-40+IA-10
Teaching Hours: 30Hrs	**Credits: 01**

UNIT-I

Fourier series: Periodic functions,Fourier series of functions of period 2π and 2l. Fourier series of odd and even functions, half range sine and cosine series.

15 Hours

UNIT-II

Fourier transforms: Finite sine and Cosine transforms.

15 Hours

OOKS FOR REFERENCE:

1. Shanti Narayana: Mathematical Analysis.
2. G. K. Ranganath: Textbook of B.Sc. Mathematics.
3. N. Rudraiah and others: College Mathematics.

B.Sc V Semester-Mathematics

Paper Code: MATDSET 5.1	**Paper Title:** Real Analysis
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT-I

Riemann Integration I-: Partition of a set. The upper and lower sums. Necessary and sufficient conditions for integrability. Algebra of integrable functions (constant,sum, difference, product, quotient, and modulus)

12 Hours

UNIT – II

Riemann Integration II: Integrability of continuous functions, monotonic functions. Fundamental theorem of integral calculus, Change of variables, Integration by parts. The first and second mean value theorems (Bonnet & Weirstrass form) of integral calculus.

12 Hours

UNIT – III

Improper integrals: Improper integrals of first and second kind. Comparison tests.Abel's test and Dirichlet's test.

12 Hours

UNIT – IV

Beta and Gamma functions:.Properties, Relation between Beta & Gamma functions and their convergence and Duplication formula.

12 Hours

UNIT-V

Differentiation under integral sign(Leibnitz theorem), Double and triple integrals, areas and volumes (Cartesian coordinates).

12 Hours

BOOKS FOR REFERENCE:

1) Fundamental Real analysis – S. L. Gupta &Nisha Rani
2) Mathematical Analysis—Shantinarayan and P. K. Mittal
3) A Course of Mathematical Analysis—M D Raisinghania
4) Real Analysis- N.P.Bali
5) A text book of B.Sc. Mathematics- G.K.Ranganath

B.Sc V Semester-Mathematics

Paper Code: MATDSET 5.2A(Elective-I)	**Paper Title:** Numerical Analysis and Difference Equations
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits:03**

UNIT-I

Solutions of Algebraic and transcendental equations: Bisection method, Iteration method, Newton-Raphson method.

Numerical solutions of non-homogeneous systems of linear algebraic equations by Jacobi Iteration Method and Gauss-Seidel Iteration method.

12 Hours

UNIT-II

Finite Differences: Operators Δ (Delta), ∇ (Del) &E (Shift), Definitions and their properties, n^{th} order difference of a polynomial,

Interpolation: Newton Gregory forward and backward difference interpolation formulae and examples. Lagrange's interpolation formula and examples.

12 Hours

UNIT-III

Numerical differentiation: Forward and backward difference formulae. Computation of first and second ordered derivatives.

Numerical integration: General Quadrature formula, Trapezoidal rule, Simpson 1/3rdand 3/8th rules.

12 Hours

UNIT-IV

Solution of initial value problems: by ordinary linear first order differential equations by Taylor's series, Euler's, Picard and Runge- Kutta method of order four.

12 Hours

UNIT-V

Difference equations: Basic definitions, order and degree, solution, formation of first and second linear difference equations with constant coefficients (simple examples).

12 Hours

BOOKS FOR REFERENCE:

1)Introductory method of numerical anaylsis- S.S.Shastri .

2)Calculus of finite differences – H.C,Saxena

3)Numerical methods for scientific and engineering computation- M.K.Jain, S.R.K.Iyengar, &R.K.Jain (New Age International Publications)

4)Text Book of Mathematics-G.K.Raganath

5) Numerical Analysis by G. Balaguruswamy

B.Sc V Semester-Mathematics

	Paper Code: MATDSET5.2B(Elective-II)	**Paper Title:** Dynamics and Calculus of Variation.
	Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
	Teaching Hours: 60Hrs	**Credits: 03**

UNIT-I

Kinematics: Velocity and acceleration of a particle along a plane curve, Radial and Transverse components of velocity and acceleration, Tangential and normal components of velocity and acceleration.

12 Hours

UNIT-II

Central Orbits: Motion of a particle under a central force. Use of Polar and Pedal co-ordinates. Apse, Apsidal distance and Apsidal angle **12 Hours**

UNIT-III

Motion of a projectile: in a non resting medium under gravity.
Elastic Impact: Direct and Oblique impact of elastic bodies.

12 Hours

UNIT- IV

Calculus of Variations: Variation of a function f = f(x,y,z), and functional, Variational problems Fundamental theorem of calculus of variation, Euler's equation.

12 Hours

UNIT- V

Calculus of Variations-(contd..): Geodesic on plane , on sphere, Brachistochrome problem , minimum surface of revolution, Isoperimetric problems.

12 Hours

BOOKS FOR REFERENCE:

1) Dynamics – M.Ray
2) Dynamics – P.N.Chatterji
3) Text Book of Mathematics-G.K.Raganath
4) Higher Engineering Mathematics by B. S.Grewal

B.Sc V Semester-Mathematics

Paper Code: MATDSEP 5.1	**Paper Title:** Practicals
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

1. Verification of lower and upper Riemann sums.
2. Verification of Riemann integrals.
3. Verification of continuous functions.
4. Evaluation if $\Gamma(n)$ for n is integer.
5. Evaluation if $\Gamma(n)$ for n is non-integer.
6. Evaluation of$\beta(m,n) for\ any\ m\ and\ n > 0$.
7. Verification of given integral for its convergence.
8. Evaluation of double integral with constant limits over the region when the integrand is unity.
9. Evaluation of double integral with variable limits over the region when the integrand is unity.
10. Evaluation of triple integral with constant limits over the region when the integrand is unity.

NOTE: Use the SciLab / MAXIMA Open – source Software to execute the practical problems.

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B.Sc V Semester-Mathematics

Paper Code: MATDSEP 5.2A(Elective-II)	**Paper Title:** Practical
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 02

1. Finding roots of an equation by Bisection method.
2. Finding roots of an equation by Newton – Raphson method.
3. Solution of system of equations by Jacobi iteration method.
4. Solution of system of equations by Gauss - Seidel method.
5. Interpolation using Newton – Gregory forward and backward interpolation formula.
6. Interpolation using Lagrange's interpolation formula.
7. Numerical integration by Trapezoidal rule.
8. Numerical integration by Simpson's $(1/3)^{rd}$ and $(3/8)^{th}$ rule.
9. Solution of initial value problem by modified Euler's method.
10. Solution of initial value problem byRunge – Kutta second and fourth order methods.

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B.Sc V Semester-Mathematics

Paper Code: MATSECT 5.3	**Paper Title:** Number Theory
Teaching Hours: 2 Hrs / Week	**Marks:** Theory-40+IA-10
Teaching Hours: 30Hrs	**Credits: 01**

UNIT-I

Number theory I: Divisibility of numbers and properties, division algorithm, properties of prime and composite numbers. Congruences and its properties, Fundamental theorem of arithmetic.

15 Hours

UNIT-II

Number theory II: Bracket function, properties, Euler's function, Fermat, Euler and Wilson's theorems.

15 Hours

BOOKS FOR REFERENCE:

1. Theory of Numbers Prakash Om (Golden series)
2. Higher Algebra- Bernard and Child

B.Sc VI Semester-Mathematics

Paper Code: MATDSET 6.1	**Paper Title:** Complex Analysis and Ring Theory
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT-I

Complex Analysis: Analytic function. Cauchy-Riemann equations, Harmonic function, Harmonic conjugate. Construction of analytic function using Milne-Thomson's method.

12 Hours

UNIT-II

Complex Integration: Cauchy's Theorem, Morera's Theorem , Cauchy's Integral formula, Cauchy's Integral formula for derivatives, Cauchy's inequality, Liouville's Theorem .

12 Hours

UNIT-III

Taylor's and Laurent's series, zeroes and singularities of analytic functions. Calculus of Residues.

12 Hours

UNIT-IV

Residue Theorem, Jordan's lemma and Contour Integration.

12 Hours

UNIT-V

Rings and Integral domains: Rings, Properties of rings, subrings, ideals, principle and maximal ideals in a commutative ring, quotient rings, homomorphism and isomorphism, and integral domains.

12 Hours

BOOKS FOR REFERENCE :

1. Theory of functions of a Complex variables- Shanti narayan and Mittal.
2. Complex Variables – B.S Tyagi
3. Complex Variables – J.N Sharma
4. Modern Algebra by A.R.Vasistha
5. Rings and Modules by C.S.Musli
6. A Text book of B.Sc. Mathematics by Dr. S.S. Bhusanoormath and others

B.Sc VI Semester-Mathematics

Paper Code: MATDSEP 6.1	**Paper Title:** Practical
Practical Hours: 3 Hrs / Week	**Marks:** Practicals -40+IA-10
	Credits: 01

1. Tracing of circles and straight lines.
2. Construction of analytic function when real part of f(z) is given.
3. Construction of analytic function when imaginary part of f(z) is given.
4. Construction of analytic function by Milne – Thomson method.
5. Verification of real and imaginary parts of analytic function being harmonic.
6. Evaluation of contour integral by Cauchy's integral formula and plot the solutions.
7. Evaluation of complex integrals when the point lie outside the contour and plot the solution.
8. Computation of residues with simple poles.
9. Computation of residues when the pole is order $m > 1$.
10. Evaluation of contour integral by using Cauchy Residue theorem.

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B.Sc VI Semester-Mathematics

Paper Code: MATDSET 6.2A(Elective-III)	**Paper Title:** Differential Equations
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT-I

Differential Equations: Simultaneous differential equations with two and three variables. Total differential equation, Conditions of integrability and its solutions.

12 Hours

UNIT-II

Series Solutions of Ordinary Differential Equations: Basic definitions, Power series, ordinary and regular singular points. Power series solutions of ODEs. Frobeniusmethod.

12 Hours

UNIT-III

Legendre equation and functions: Solutions of Legendre's equations in series,Legendre's functions- first and second kind, Rodrigue's formula, Orthogonal properties. Legendre's polynomial, recurrence formulae.

12 Hours

UNIT-IV

Partial differential equations of 1st order:formation of partial differential equation by eliminating arbitrary constants and functions. Lagrange's linear partial differential equation Pp+Qq = R and its solution. Non-linear differential equations of standard forms I,II,III and IV.

12 Hours

UNIT-V

a) Non-linear partial differential equations: Charpit's method.
b) Linear partial differential equations with constant coefficients.

12 Hours

BOOKS FOR REFERENCE:

1. Differential equations – D.A.Murray
2. Differential equations – Bhudev Sharma
3. Differential equations – J.N.Sharma and R.K.Gupta (Krishna PrakashanMandir Meerut)
4. Text book of Mathematics – G.K.Ranganath
5. Higher Engineering Mathematics by B. S.Grewal

B.Sc VI Semester-Mathematics

Paper Code: MATDSEP 6.2A(Elective-III)	**Paper Title:** Practicals
Practical Hours: 3 Hrs / Week	**Marks:** Practicals-40+IA-10
	Credits: 01

1. Verification of Cauchy – Euler differential equations.
2. Solution to the total and simultaneous differential equations and plot the solutions.
3. Verification of exactness of a differential equations.
4. Verification of linear partial differential equation of the form Pp + Qq = R.
5. Verifying first order non-linear partial differential equations (clairaut's form)
6. Verification of non-linear partial differential equations by Charpit's method.
7. Solutions to standard forms $f(p,q)=0, f(p,q,z)=0\,, f(x,p)=g(y,q)$.
8. Recurrence relation for Legendre's function.
9. Recurrence relation for Bessel's unction.

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B.Sc VI Semester-Mathematics

Paper Code: MATDSET6.2B(Elective-IV)	**Paper Title:** Topology and Laplace Transforms
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT-I

Topology-I: Open set, closed set, closure of a set, neighbourhood, limit points derived sets, interior, exterior and boundary points of a set.

12 Hours

UNIT-II

Topology-II-: Base & sub-base, subspace, separation axioms. T_1& T_2 spaces (properties and examples).

12 Hours

UNIT- III

Laplace transforms-I: Definition, basic properties. Laplace transforms of some common functions. First shifting theorem, change of scale property.

12 Hours

UNIT- IV

Laplace transforms--II: Laplace transforms of periodic functions,Laplace transforms of derivatives and integrals, inverse Laplace transforms

12 Hours

UNIT-V

Laplace transforms—III: Heaviside function, Dirac-delta function, unit step function, convolution theorem and Laplace transforms method of solving differential equation of first and second order with constant coefficients.

12 Hours

REFERENCES:

1. Modern algebra and Topology- E.Sampathkumar and K.S.Amur
2. Topology – J.N.Sharma (Krishna Prakashan Meerut)
3. Topology by R.S.Agrawal
4. Laplace Transform Theory – M.G.Smith
5. A Text Book Of Mathematics– G.K.Raganath

B.Sc VI Semester-Mathematics

Paper Code: MATSECT 6.3	**Paper Title:** Graph Theorymax
Teaching Hours: 2 Hrs / Week	**Marks:** Theory-40+IA-10
Teaching Hours: 30Hrs	**Credits: 01**

UNIT-I

Basic Concepts of Graphs: Introduction, graphs, finite and null graphs, loops, multi graphs, pseudo graph, simple graph, degree of a vertex, isolated and pendent vertices, connectedness and complete graphs, regular and complementary graphs. Minimum and maximum degree, $\sum \deg(v_i) = 2q$.The number of vertices of odd degree is even. Isomorphism, line and total graphs.(Definitions and examples only).

15 Hours

UNIT-II

Sub – Graphs: Sub – graphs, spanning and induced sub-graphs, walk, trail, path, cycle, shortest path problems, bipartite graph. Characterisation of bipartite graphs in terms of its cycle.

15 Hours

BOOKS FOR REFERENCE:

1. **Graph theory – Frank Harary**
2. **Introduction to graph theory – Robin J Wilsoson, Longman**
3. **Graph theory and application – NarsingDeo**

RANI CHANNAMMA UNIVERSITY, BELAGAVI.

QUESTION PAPER PATTERN OF UG MATHEMATICS CBCS SYLLABUS

DSC1A TO DSC1D AND DSE1A TO DSE1D.

TIME: 3 HOURS. MAX. MARKS: 80.

PART – A: ANSWER ANY TEN OUT OF TWELVE 10 X 2 = 20MARKS
Q.NO.: 1. a, b, c, d, e, f, g, h, i, j, k, l.

PART – B: ANSWER ANY FOUROUT OF SIX 4 X 5 = 20 MARKS
Q. NOS: 2, 3, 4, 5, 6, 7.

PART – C: ANSWER ANY FOUR FULL QUESTIONS OUT OF FIVE FULL

QUESTIONS.4 X 10 = 40 MARKS
Q. NOS: 8 a, 8b, 9a, 9b, 10a, 10b, 11a,11b, 12a, 12b.

NOTE:

1. PART – A: ATLEAST TWO QUESTIONS FROM EVERY UNIT.
2. PART – B: ATLEAST ONE QUESTION FROM EVERY UNIT.
3. PART – C: ONE FULL QUESTION FROM EVERY UNIT.

PATTERN FOR SEC 1 SEC 4

TIME: 2 HOURS. MAX. MARKS: 40.

PART – A: ANWER ANY FIVE OUT OF SEVEN5 X 2 = 10 MARKS
Q. NO: 1a, b, c, d, e, f, g.

PART – B: ANWER ANY SIX OUT OF EIGHT6 X 5 = 30 MARKS
Q. NO: 2, 3, 4, 5, 6, 7, 8, 9.

NOTE:

1. PART – A: AT LEAST THREE QUESTIONS FROM EACH PART.
2. PART – B: FOUR QUESTIONS FROM EACH PART.

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF SCIENCE

PHYSICS

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

CHOICE BASED CREDIT SYSTEM [CBCS]
B.Sc. Program with Optional Subject: PHYSICS

B.Sc., PHYSICS Syllabus as per CBCS (With effect from the academic year 2020-21 onwards)								
Sem	Part	Paper Code	Title of the Paper	Hours/ Week	Marks			Subject Credits
					IA	Exam	Total	
I	Part – 1 DSC	PHYDSCT1.1	Mechanics and Theory of Relativity	4	20	80	100	3
		PHYDSCP1.1	Practical I	3	10	40	50	1
		Total : Hours / Credits		7			150	4
II	Part – 1 DSC	PHYDSCT2.1	Electricity & Magnetism	4	20	80	100	3
		PHYDSC P2.1	Practical II	3	10	40	50	1
		Total : Hours / Credits		7			150	4

B.Sc., PHYSICS Syllabus as per CBCS (With effect from the academic year 2021-22 onwards)								
Sem	Part	Paper Code	Title of the Paper	Hours/ Week	Marks			Subject Credits
					IA	Exam	Total	
III	Part – 1 DSC	PHYDSCT3.1	Thermodynamics-I, Sound and Waves	4	20	80	100	3
		PHYDSCP3.1	Practical III	3	10	40	50	1
	Part – 2 SEC	PHYSECT3.2	Weather Forecasting	2	10	40	50	2
		Total : Hours / Credits		9			200	6
IV	Part – 1 DSC	PHYDSCT4.1	Thermodynamics-II, Statistical Mechanics and Optics	4	20	80	100	3
		PHYDSCP4.1	Practical IV	3	10	40	50	1
	Part – 2 SEC	PHYSECT4.2	Renewable Energy sources and Energy Harvesting	2	10	40	50	2
		Total : Hours / Credits		9			200	6

CHOICE BASED CREDIT SYSTEM [CBCS]
B.Sc. Program with Optional Subject: PHYSICS

B.Sc., PHYSICS Syllabus as per CBCS (With effect from the academic year 2022-23 onwards)								
Sem	Part	Paper Code	Title of Paper	Hours/ Week	Marks			Subject Credits
					IA	Exam	Total	
V	Part – 1 DSE	PHYDSET5.1	Mathematical Physics – I, Nuclear and Particle Physics and Classical Mechanics	4	20	80	100	3
		PHYDSEP5.1	Practical V	3	10	40	50	1
		PHYDSET5.2A **(Elective I)**	Quantum Mechanics – I, Electronics and Optoelectronics	4	20	80	100	3
		PHYDSEP5.2A **(Elective I)**	Practical VIA	3	10	40	50	1
		PHYDSET5.2B **(Elective II)**	Modern Physics - I	4	20	80	100	3
		PHYDSEP5.2B **(Elective II)**	Practical VIB	3	10	40	50	1
	Part – 2 SEC	PHYSECT5.3	Basic Instrumentation Skills	2	10	40	50	2
		Total : Hours / Credits		16			350	10
Note: Students have to choose either Elective-I or Elective-II								
VI	Part – 1 DSE	PHYDSET6.1	Mathematical Physics – II, Atomic, Molecular and Optical Physics and Atmospheric Physics.	4	20	80	100	3
		PHYDSEP6.1	Practical VII	3	10	40	50	1
		PHYDSET6.2A **(Elective III)**	Quantum Mechanics – II, Condensed Matter Physics and Nanomaterials	4	20	80	100	3
		PHYDSEP6.2A **(Elective III)**	Practical VIIIA	3	10	40	50	1
		PHYDSET6.2B **(Elective IV)**	Modern Physics - II	4	20	80	100	3
		PHYDSEP6.2B **(Elective IV)**	Practical VIIIB	3	10	40	50	1
	Part – 2 SEC	PHYSECT6.3	Electrical Circuits And Network Skills	2	10	40	50	2
		Total : Hours / Credits		16			350	10
Note: Students have to choose either Elective-III or Elective-IV								

T: Theory, P: Practical, CC/EA: Co-curricular/Extension Activities. AECC: Ability Enhancement Compulsory Course, DSC: Discipline Specific Course. DSE: Discipline Specific Elective, SEC: Skill Enhancement Course)

Note: Duration of examinations is 03 Hrs for 80 Marks theory and 02 hrs for 40 marks theory. For practical's duration of examination is 03 Hrs.

Scheme of Evaluation for Practical Examination

S.No	Particulars	Marks Allotted
1.	Basic formula with description, nature of graph if any & indication of unit	04
2.	Tracing of schematic ray diagram/Circuit diagram with description	04
3.	Tabulation	04
4.	Experimental skill & connection	04
5.	Record of observation and performance of experiment	08
6.	Calculation including drawing graph	06
7.	Accuracy of result with unit	02
8.	Journal assessment	04
9.	Oral performance	04
	Total	**40**

First Semester B.Sc. (Physics)

Paper Code: PHYDSCT1.1 **Paper Title:** Mechanics and Theory of Relativity
Teaching Hours: 4 Hrs / Week **Marks:** Th-80+IA-20
Total Hours: 60 **Credits :** 3

Unit I

Conservation Laws

Law of conservation of linear momentum (statement). Centre of mass & Expressions for position vector, velocity, acceleration & force of centre of mass. Distinction between laboratory frame of reference and centre of mass frame of reference. Concept of elastic and inelastic collisions. Derivation of final velocities in case of elastic collision in (i) laboratory frame of reference (ii) centre of mass frame of reference. Derivation of final velocities in case of inelastic collision in (i) laboratory frame of reference (ii) centre of mass frame of reference. Conservation of linear momentum in case of variable mass. Principle of rocket and derivation for equation of motion for single stage rocket. Necessity of multistage rocket (Qualitative). Basics of angular momentum and torque, relation between angular momentum & torque (qualitative). Law of conservation of angular momentum with examples. Concept of work & power in terms of line integral. Law of conservation of energy. Work energy Principle. **15 Hours**

Unit II

Gravitation

Newton's law of Gravitation (statement). Expressions for escape velocity and orbital velocity. Kepler's laws of planetary motion. Derivation for Kepler's 2^{nd} and 3^{rd} law. Concept of Satellite, derivation for binding energy of satellite. Artificial Satellite: Geostationary satellite and polar orbit satellite with different types of orbits (qualitative). Concept of weightlessness. Basic ideas of G.P.S. and NAVIC.

Rigid Body Dynamics

Moment of Inertia. Radius of Gyration. Statements of theorem of parallel axis and theorem of perpendicular axis. Derivation of expressions for moment of inertia for (i) rectangular lamina (ii) thin uniform rod and (iii) circular disc. Theory of compound pendulum. Theory of flywheel and its applications. **15 Hours**

Unit III

Elasticity

Statement of Hook's law. Behavior of wire under stress. Modulus of elasticity. Derivation of expression for relations between elastic constants. Derivation of work done per unit volume in a deforming body. Derivation of twisting couple of cylindrical rod or wire. Torsion pendulum, Derivation for time period of torsion pendulum. Derivation of bending moments. Theory of cantilever. Derivation of Young's modulus by bending of beam supported at its ends and loaded at middle.

15 Hours

Unit IV

Theory of Relativity

Inertial and non inertial frames of references. Newtonian principle of relativity. Galilean transformation equations. Michelson Morley experiment and negative results. Postulates of special theory of relativity. Lorentz transformation equations. Length contraction. Time dilation. Addition of velocities. Derivation of variation of mass with velocities. Derivation of Einstein's mass-energy relation.

15 Hours

REFERENCE BOOKS:

1) Fundamentals of Physics- R.Resnik, D. Halliday and Walker; Wiley 6ed(**2001**)
2) Physics-Classical and Modern, FJ Keller, E Gettys and J J Skove, McGraw Hill Second Revised Edition(**1993**)
3) Classical Mechanics-K N Sreenivasa Rao, Universities Press- Orient Longman (**2003** ed)
4) Concepts of Physics Vol (1)-H C Verma, Bharathi Bhavan Publishers, **2004** Edition
5) University Physics- F W Sears, M W Zemansky & H D Young, Pearson Education First ed.(**2014**)
6) Mechanics- J C Upadhaya, Himalaya (**2014** ed)
7) Mechanics- Berkeley Physics Course Vol(1)- SI units Charles Kittel etal, McGrawHill Education (India) 2e (2011).
8) Elements of Properties of matter – D S Mathur, S.chand(GL) 7 Co Ltd,Dehi 1ed(**2010**)
9) Properties of Matter - Brijlal & Subramanyam, S Chand & Co, (**2002)**
10) Newtonian Mechanics- A P French, Nelson & Sons UK, (**1971**)
11) Mechanics & Thermodynamics, G Basavaraju & Dipan Ghosh, McGrawHill Education India) 1ed (**1985**)
12) A treatise on general properties of matter, Sengupta and Chatterjee, New Central Book Agency Pvt Ltd, Calcutta (7^{th} Revised edition -**2010**)
13) Waves & Oscillations, P K Mittal & Jai Dev Anand, Hari Anand Publications Pvt Ltd (2011ed)
14) Perspectives of Modern Physics, Arthur Beiser, Mc- Graw Hill;
15) Introduction to Special Theory of Relativity, Rober Resnick, John Wiley and Sons First Edition
16) Special Relativity, A P French, MIT, w.w. Nortan and Company First Ed (**1968)**
17) Concepts of Modern physics McGraw hill Education(India) Pvt Ltd;6^{th} ed **(2000)**
18) Principles of Modern Physics, A.P. French, John Wiley, London (1958).
19) Modern Physics - S.N. Ghoshal, Part 1 and 2 S. Chand and Company (1996).
20) Advanced analytical dynamics : Dynamic of rigid body, Utpal Chatterjee, Academic Publishers, first edition,(2016).
21) Theory of mechanics, kinematics and dymanics : V. R. Gupta, I K International publishing house Pvt. Ltd, (2013).
22) Dynamics of Rigid Body : A. K. Sharma, Discovery Publishing Group,(2007).
23) Properties of matter : R. Murugeshan, S Chand & Co Ltd Publication.
24) Theory of Elasticity : P. N. Chandramouli, Yes Dee publishers(2017).
25) An introduction to the theory of elasticity : R. J. Atkin & N. Fox, Dover Publications Inc.(2005).
26) Theory of elasticity : Dr. Sadhu Singh, Khanna publishers, (1978).
27) B.Sc Physics - C. L. Arora.
28) Mechanics, S P Taneja, R Chand & Co New Delhi

Practical

Paper Code: PHYDSCP1.1 **Paper Title: Practical I**

Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10

Credits : 1

1. Error analysis, data analysis technique and graphing technique to be learnt (mandatory).
2. Moment of Inertia of Fly wheel
3. Young's modulus (Y) by Cantilever- Load Vs depression graph.
4. Modulus of rigidity by Maxwell needle method.
5. Young's modulus (Y) by uniform bending- Load Vs depression graph.
6. Bar pendulum- determination of g
7. Modulus of rigidity by Torsional pendulum
8. Spring Constant by Flat spiral Spring.
9. Verification of parallel axis theorem of Moment of Inertia.
10. Verification of perpendicular axis theorem of Moment of Inertia.
11. Verification of Hook's law.
12. q by stretching method.
13. Searle's double bar method to determine Young's Modulus.
14. Torsional pendulum- to determine C and rigidity modulus.
15. Coupled oscillator- string coupled with change of tension.
16. To determine rigidity modulus by dynamic method.

Note :

1. Experiments are of three hours duration.
2. Minimum of eight experiments to be performed.

References:

1. B Saraf etc, - Physics through experiments, Vikas Publications (**2013**)
2. D P Khandelwal – A Laboratory Manual of Physics for Undergraduate Classes, Vikas Publications First ed (**1985**)
3. Advanced Practical Physics for Students – Worsnop & Flint, Methuen & Co, London.
4. An Advanced Course in Practical Physics , D Chattopadhyay, P C Rakshit, B Saha, New Central Book Agency (P) Limited, Kolkata, Sixth Revised Edition, (**2002)**
5. BSC, Practical Physics, CL Arora, SChand & Co, New Delhi, (**2007**) Revised Edition.
6. B.Sc. Practical Physics, Geeta Sanon R. Chand & Co. New Delhi

Second Semester B.Sc. (Physics)

Paper Code:PHYDSCT2.1 **Paper Title:** Electricity & Magnetism
Teaching Hours: 4 Hrs / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

Unit I

Vector Analysis

Scalar and Vector Products. Gradient of scalar and its physical significance. Divergence of vector and its physical significance. Curl of vector and its physical significance. Vector integration; line, surface & volume integrals of a vector field. Gauss Divergence theorem & Stokes theorem (statement).

Maxwell's Electromagnetic Theory

Derivation of Maxwell's equations in differential form. Mention of Maxwell's equations in integral form and their physical significances. Derivation for general plane wave equation in free space. Transverse nature of radiation. Derivation of Poynting's theorem.

15 Hours

Unit II

DC Circuit Analysis

Voltage and current sources. Kirchoff's current and voltage laws. Derivation of Thevenin's Theorem. Derivation of Norton's Theorem. Derivation of Superposition Theorem. Derivation of Maximum Transfer Theorem.

Transient Circuits

Theory of growth and decay of current in RL circuit. Theory of charging and discharging of capacitor in RC circuit. Time constants of RL and RC circuits. Measurement of high resistance by leakage method.

15 Hours

Unit III

Magnetostatics

Statement of Biot Savart's law. Mention of expressions for Magnetic field at a point (1) due to a straight conductor carrying current (ii) along the axis of the circular coil carrying current (iii) along the axis of solenoid. Principle, construction and theory of Helmoltz Galvanometer.

Magnetic Properties

Magnetic intensity, Magnetic induction, Magnetic potential. Derivation of Magnetic intensity and magnetic potential due to dipole (magnet). Permeability and magnetic susceptibility. Distinction between dia, para, and ferromagnetic materials. Ampere Circuital Law (statement).

Electromagnetic induction

Faraday's law of electromagnetic induction. Lenz's law. Self and mutual inductance.

Alternating Current

Definitions of average, peak and rms values of AC. AC circuits containing LR, CR and their responses (using j operator). Expressions for impedance, current & phase angle in series, LCR circuit using j operator. Expressions for admittance and condition for resonance in parallel, LCR circuit using j operator. Concept of Series resonance & parallel resonance (sharpness, half power frequency, quality factor, voltage magnification). Comparison between Series resonance & parallel resonance. De Sauty's Bridge.

15 Hours

Unit IV

Electrical Instrument

Ballistic Galvanometer; Theory of Ballistic Galvanometer (Derivation for current and Charge). Constants of Ballistic Galvanometer and their relationship. Condition for moving coil galvanometer to be ballistic. Determination of self inductance (L) by Rayleigh's method. CRO block diagram. Use of CRO in the measurement of Voltage, Frequency and Phase.

Dielectrics

Types of dielectric (polar and non polar molecules). Electric dipole moment (p), electric polarization (P). Gauss law in dielectrics. Derivation for Relation between D, E and P. Derivation for relation between dielectric constant and electric susceptibility. Boundary conditions for E & D.

15 Hours

REFERENCE BOOKS :

1) Electricity and magnetism by Brij Lal and N Subrahmanyam, Rathan Prakashan Mandir, Nineteenth Edition, 1993**.**
2) Principles of Electronics by V K Mehta and Rohit Mehta, S Chand & Company, Eleventh Edition,**2008.**
3) Fundamentals of Magnetism & Electricity : d. N. Vasudeva, S Chand Publication, (2011).
4) Fundamentals of Electricity and Magnetism **–** Basudev Ghosh (Books & Allied New Central Book Agency, Calcutta, 2009).
5) Electricity & Magnetism : B. S. Agarwal, Kedarnath Ramnath Publication(2017).
6) Electricity & Magnetism : A. N. Matveev, Mir Publishers Moscow,(1987).
7) Electricity and Magnetism with Electronics **:** Dr. K.K.Tewari, S.Chand Publications(1995).
8) Fundamentals of electric circuit theory : Dr. D. Chattopashyay & Dr. P. C. Rakshit, S. Chand Publications, 7^{th} Rev. Edn. (2006).
9) Electricity and Magnetism : John Yarwood, University Tutorial Press, (1973).
10) Feynman Lecture series, VolII, R P Feynnman et al, Narosa Publishing House, New Delhi
11) Electricity & Magnetism, N S Khare & S S Srivastava, AtmaRam & Sons, New Delhi.
12) Electricity & Magnetism, D L Sehgal, K L Chopra, N K Sehgal, S Chand & Co, Sixth Edition, (**1988**).
13) Electricity & Electronics, D C Tayal, Himalaya Publishing House, Sixth Edition(**1988**).
14) Basic Electronics & Linear Circuits, N N Bhargava, D C Kulshrestha & SC Gupta, TMH Publishing Company Limited, 28^{th} Reprint,(**1999**).
15) Fundamentals of Physics by Halliday, Resnick and Walker, Asian Books Private Limited, New Delhi, 5^{th} Edition, (**1994**).
16) Introduction to Electrodynamics by D J Griffiths Pearson Education (**2015**).

17) Classical Electrodynamics : John David Jackson, John Wiley & Sons,(2007).
18) Electromagnetism by B B Laud 2ed.
19) An Introduction to vector analysis : B. Hague, Springer Science & Bussiness Media, (2012).
20) Electrical Networks, Theraja 3rd revised edition
21) Circuit Theory (Analysis & Synthesis) : A. Chankrabarti, Dhanpat Rai Publications,(1951).
22) Electricity and Magnetism, S P Taneja, R Chand & Co. New Delhi.
23) Introduction to Electromagnetic Theory, S P Taneja, R Chand & Co. New Delhi.

Practical

Paper Code: PHYDSCP2.1 **Paper Title: Practical II**

Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10

Credits : 1

1 Thevenin's & Norton's theorem (Ladder Network)
2 Thevenin's & Norton's theorem (Whestone Bridge)
3 High resistance by leakage method
4 Time constant of RC circuit by charging and discharging method.
5 Calibration of Ammeter using Helmoltz Galvenometer
6 Constants of Ballistic Galvanometer
7 LCR series and parallel resonance circuit
8 De Sauty's AC bridge
9 Self Inductance by Rayleigh's method
10 Use of CRO to find voltage, frequency and phase.
11 L & C by Equal Voltage Method
12 Black Box- Identify & Measure R, L & C
13 Anderson's Bridge to determine the self inductance of the coil (L).
14 Verification of Superposition Theorem
15 Verification of maximum Power Transfer Theorem

Note :

1. Experiments are of three hours duration.
2. Minimum of eight experiments to be performed.

References:

1. Physics through experiments. B Saraf etc,- Vikas Publications (**2013**)
2. D P Khandelwal – A Laboratory Manual of Physics for Undergraduate Classes, Vikas Publications First ed (**1985**)
3. Advanced Practical Physics for Students – Worsnop & Flint, Methuen & Co, London.
4. An Advanced Course in Practical Physics , D Chattopadhyay, P C Rakshit, B Saha, New Central Book Agency (P) Limited, Kolkata, Sixth Revised Edition, (**2002)**
5. BSC, Practical Physics, CL Arora, SChand & Co, New Delhi, (**2007**) Revised Edition.
6. B.Sc. Practical Physics, Geeta Sanon R. Chand & Co. New Delhi

Third Semester B.Sc. (Physics)

Paper Code: PHYDSCT3.1 **Paper Title**: Electricity, Thermodynamics-I, Sound and Waves
Teaching Hours: 4 Hrs / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

Unit I

Kinetic Theory of Gases

Postulates of kinetic theory of gases. Derivations of Maxwell's law of distribution of velocities (assuming constants a and b). Derivations of average, r.m.s and most probable velocity. Mean free path. Derivation of Clausius expression of mean free path.

Transport Phenomena

Concept of viscosity (η). Derivation of expression for the thermal conductivity (K).Relation between η & K. Derivation of the expression for the coefficient of diffusion (D).

Black Body Radiation

Derivation of Stefan's law. Energy distribution in the black body spectrum. Derivation of Plank's law and deduction of Wien's displacement law and Rayleigh Jean's law .

15 Hours

Unit II

Thermodynamics

Zeroth law of thermodynamics. First law of thermodynamics and its application to various processes viz cyclic , adiabatic, isothermal , Isochoric and isobaric processes. Second law of thermodynamics and entropy. Carnot's cycle. Working of Otto and Diesel engines with expressions for efficiency. Change of entropy in reversible and irreversible process. Entropy- Temperature diagram. Third law of thermodynamics. Derivation for Maxwell's thermodynamic relations. Clausius-Clapeyron's equation.

15 Hours

Unit III

Fluids

Surface Tension. Surface temperature and surface energy. Excess pressure on curved liquid surfaces and special cases in liquid drop, cylindrical surface and soap bubble. Variation of surface tension with temperature (qualitative). Determination of surface tension by Jaeger's method. Viscosity. Rate of flow of fluid. Velocity gradient. Coefficient of viscosity. Derivation of Poiseuille's formula (for liquid). Determination of coefficient of viscosity by Stokes method. Variation of viscosity with temperature and pressure.

Low Temperature and Low Pressure Physics

Joule Thomson effect. Porous plug experiment. Theory of Porous plug experiment. Exhaust Pump and its characteristics (with deduction for speed of pump). Theory, construction and working of Diffusion pump. Theory, construction and working of Ionization Gauge.

15 Hours

Unit IV

Waves

Composition of two co-linear oscillations having (i) equal frequencies (ii) Different frequencies (analytical method). Concept of beats. Composition of two perpendicular oscillations having (i) equal frequencies (ii) Different frequencies (analytical method). Lissajous figures with equal and unequal frequencies.

Sound

Simple harmonic motion. Analytical treatment of forced vibration and resonance. Theory of Helmoltz resonator. Intensity and loudness of sound-decibels. Intensity level- musical note and scale. Acoustics of building. Reverberation and time of reverberation- absorption coefficient. Derivation of Sabine's formula. Measurement of reverberation time. Acoustic aspects of hall and auditorium. **15 Hours**

RFERENCE BOOKS:

1) Heat and Thermodynamics- M M Zemansky, McGrawHill Education (India) 8ed (**2011**).
2) Heat & Thermodynamics, M W Zemansky & RHDittman, McGraw Hill Book company,Inc.US Seventh Revised edition(**1997**).
3) Heat and Thermodynamics- Brij Lal and N Subramanyam, S Chand & Co, New Delhi -1985.
4) Heat and Thermodynamics – D S Mathur, SChand & Co, New Delhi, 5th Edition(2004).
5) Heat, Thermodynamics & Stastical Mechanics, BrijLal & Subramanyam, S. Chand & Company,Delhi; (**2008** ed).
6) Thermodynamics & Statistical Physics, Sharma & Sarkar, Himalaya Publishing House, Third Edition(1991).
7) Thermodynamics, Kinetic theory & Statistical Thermodynamics, F W Sears & G L Salinger, Narosa Publishing House (Third Edition **1998**).
8) Fundamentals of Classical Thermodynamics, Gordon J V Wylen & Richard E Sonntag, John Wiley Eastern Limited; 4th ed (**1994**).
9) Thermal Physics, S C Garg, R M Bansal & C K Ghosh, Mc Graw Hill Education (India) Second ed (**2013**).
10) Kinetic Theory of Gases (I – edition) – Ideal Book Service, Pune.(1967)
11) Kinetic Theory of Gases – Kelkar V N.
12) Kinetic theory of gases – R. S. Bhoosanurmath
13) Heat and Thermodynamics and Statistical Physics (XVII Edition) –Singhal, Agarwal and Satyaprakash
14) A Treatise on Heat: Meghnad N. Saha and B. N. Srivastava, Indian Press, (1958).
15) A Text Book of Heat and Thermodynamics for Degree Students : J. B. Rajam, S. Chand Publications, (1981).
16) Properties of Matter - Brijlal & Subramanyam, S Chand & Co, (**2002)**
17) Elements of Properties of matter – D S Mathur, S.chand(GL) 7 Co Ltd,Dehi 1ed(**2010**)
18) Fluid Mechanics: Robert W. Fox & Alan T. Mcdonald, Wiley India, 8th Edn.
19) Low-Temperature Physics: Hans- Christian Stahl, Siegfried Hunklinger, Springer Science & Business Media, (2005).
20) Waves & Oscillations, P K Mittal & Jai Dev Anand, Hari Anand Publications Pvt Ltd (2011ed).

21) Physics of Waves, University Leadership Project, Prasaranga, Bangalore University.
22) A text book of Sound (II Edition) – Brijlal and Subramanyam, Vikas Publishing House, 1977.
23) Text book of Sound (I Edition) – Khanna and Bedi, Atmaram and Sons,1985.
24) Text book of Sound (III Edition) – M. Ghosh, (S.Chand).
25) Waves and Optics, S P Taneja, R Chand & Co. New Delhi.
26) Thermal Physics, Ashok Kumar, S P Taneja, R Chand & Co. New Delhi.

Practical

Paper Code: PHYDSCP3.1 **Paper Title: Practical III**

Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10

Credits : 1

1. Viscosity by Stokes Method
2. Surface tension by Jaegers method
3. Helmoltz Resonator
4. Velocity of sound through wire (sonometer)
5. Characteristics of Loud speaker
6. Thermal conductivity by Lee's method
7. Verification of Newton's law of cooling
8. Specific heat by cooling.
9. Verification of Stefan's law of radiation.
10. Characteristics of microphone
11. Lissajous figures using CRO
12. Thermo-Electric Circuit to find Seebeck Effect
13. Thermal Behavior of Bulb Filament.
14. Calibration of thermistor for temperature measurement.
15. Calibration of thermocouple for temperature measurement.

Note :

1. Experiments are of three hours duration.
2. Minimum of eight experiments to be performed.

References:

1. Physics through experiments. B Saraf etc,- Vikas Publications (**2013**)
2. D P Khandelwal – A Laboratory Manual of Physics for Undergraduate Classes, Vikas Publications First ed (**1985**)
3. Advanced Practical Physics for Students – Worsnop & Flint, Methuen & Co, London.
4. An Advanced Course in Practical Physics , D Chattopadhyay, P C Rakshit, B Saha, New Central Book Agency (P) Limited, Kolkata, Sixth Revised Edition, (**2002)**
5. BSC, Practical Physics, CL Arora, SChand & Co, New Delhi, (**2007**) Revised Edition.
6. B.Sc. Practical Physics, Geeta Sanon R. Chand & Co. New Delhi

Third Semester B.Sc. (Physics) Skill Enhancement Course

Paper Code: PHYSECT3.2 **Paper Title:** Weather Forecasting
Teaching Hours: 2Hrs / Week **Marks:** Th-40+IA-10
TOTAL HOURS :30 **Credits :**2

The aim of this course is not just to impart theoretical knowledge to the students but to enable them to develop an awareness and understanding regarding the causes and effects of different weather phenomenon and basic forecasting techniques

Unit I

Introduction to atmosphere: Elementary idea of atmosphere: physical structure and composition; compositional layering of the atmosphere; variation of pressure and temperature with height; air temperature; requirements to measure air temperature; temperature sensors: types; atmospheric pressure: its measurement; cyclones and anticyclones: its characteristics.

Measuring the weather: Wind; forces acting to produce wind; wind speed direction: units, its direction; measuring wind speed and direction; humidity, clouds and rainfall, radiation: absorption, emission and scattering in atmosphere; radiation laws.

Weather systems: Global wind systems; air masses and fronts: classifications; jet streams; local thunderstorms; tropical cyclones: classification; tornadoes; hurricanes.

15 Hours

Unit II

Climate and Climate Change: Climate: its classification; causes of climate change; global warming and its outcomes; air pollution; aerosols, ozone depletion, acid rain, environmental issues related to climate.

Basics of weather forecasting: Weather forecasting: analysis and its historical background; need of measuring weather; types of weather forecasting; weather forecasting methods; criteria of choosing weather station; basics of choosing site and exposure; satellites observations in weather forecasting; weather maps; uncertainty and predictability; probability forecasts.

15 Hours

Unit III

Demonstrations and Experiments:

1. Study of synoptic charts & weather reports, working principle of weather station.
2. Processing and analysis of weather data:

(a) To calculate the sunniest time of the year.
(b) To study the variation of rainfall amount and intensity by wind direction.
(c) To observe the sunniest/driest day of the week.
(d) To examine the maximum and minimum temperature throughout the year.
(e) To evaluate the relative humidity of the day.
(f) To examine the rainfall amount month wise.

3. Exercises in chart reading: Plotting of constant pressure charts, surfaces charts, upper wind

charts and its analysis.

4. Formats and elements in different types of weather forecasts/ warning (both aviation and non aviation)

References:

1. Aviation Meteorology, I.C. Joshi, 3rd edition 2014, Himalayan Books
2. The weather Observers Hand book, Stephen Burt, 2012, Cambridge University Press.
3. Meteorology, S.R. Ghadekar, 2001, Agromet Publishers, Nagpur.
4. Text Book of Agrometeorology, S.R. Ghadekar, 2005, Agromet Publishers, Nagpur.
5. Why the weather, Charls Franklin Brooks, 1924, Chpraman & Hall, London.
6. Atmosphere and Ocean, John G. Harvey, 1995, The Artemis Press.

Fourth Semester B.Sc. (Physics)

Paper Code:PHYDSCT4.1 **Paper Title:** Thermodynamics-II, Statistical Mechanics and Optics
Teaching Hours: 4 Hrs / Week **Marks:** Th-80+IA-20
Total hours :60 **Credits :**3

Unit I

Thermodynamic Relations

Four Fundamental thermodynamic potentials (Internal energy, Enthalpy, Helmoltz free energy and Gibbs free energy). Maxwell's equations from thermodynamic potentials. Derivation for (C_p-C_v) and $\frac{C_p}{C_v}$ using Maxwell's Equations. Three Tds equations using Maxwell's relations.

Statistical Mechanics

Concepts of thermodynamic ensembles (micro-canonical, canonical and grand canonical ensembles). Phase Space- Micro state & Macro state. Thermodynamic probabilities. Maxwell-Boltzman Statistics. Derivation for Maxwell- Boltzman distribution function. Limitations Maxwell-Boltzman Statistics. Concepts of Bosons and fermions . Bose-Einstein Statistics. Derivation for Bose-Einstein distribution function. Fermi-Dirac Statistics. Derivation for Fermi-Dirac distribution function. Comparison of Maxwell- Boltzmann Statistics, Bose-Einstein Statistics, Fermi-Dirac Statistics.

15 Hours

Unit II

Thermo-Electricity

Seebeck Effect –explanation. Variation of emf with temperature ; Neutral Temperature and Temperature of inversion. Thermo-electric Series. Laws of Thermo-Electric effects. Peltier Effect-explanation. Peltier's Coefficients. Thermodynamics of Peltier's Effect. Thomson Effect – explanation. Thomson Coefficient. Derivation of the relation $\pi = T\frac{dE}{dT}$ & $\sigma_A - \sigma_B = T\frac{d^2E}{dT^2}$ Thermo-Electric (Tait) diagrams, its applications to determine, (1) Total emf (2) Peltier emf (3) Thomson emf (4) Neutral temperature and (5) Temperature of inversion.

15 Hours

Unit III

Interference

Interference due to division of wavefront & amplitude. Young's double slit experiment. Lloyd's mirror Fresnel biprism . Phase change on reflection: Stokes' treatment of reflection and transmission at interface. Interference in thin films – due to reflected light and transmitted light. Newton's rings due to reflected light and transmitted light & measurement of wavelength. Michelson's interferometer.

15 Hours

Unit IV

Diffraction

Fresnel's Diffraction. Half Period Zone using rectilinear propagation of light. Zone plate: Construction, theory and working. Fresnel's diffraction pattern due to straight edge and position of minima and maxima. Fraunhofer's diffraction at single slit. Diffraction grating. Theory of plane transmission grating. Resolving power. Rayleigh's criteria. Resolving power of prism. Resolving power of telescope. Resolving power of grating (qualitative).

Polarization

Transverse nature of light waves- plane of vibration and plane of propagation. Malu's law. Double refraction. Positive and negative plates. Retardation plates: Quarter wave plate and half wave plate. Production of Circular and elliptical polarization, Optical Activity: Fresnel's Theory of optical activity. Specific rotation

15 Hours

REFERENCE BOOKS:

1) Statistical Mechanics, An Introduction, **Evelyn Guha**, Narosa (**2008**)
2) Statistical Mechanics, ***R.K.Pathria***, 2nd edition, Pergamon Press (**1972**)
3) Statistical and Thermal physics, ***F.Reif***, McGraw Hill International(**1985**)
4) Statistical Mechanics, ***K.Huang***, Wiley Eastern Limited, New Delhi (**1975**).
5) Fundamentals of Statistical Mechanics: B. B. Laud, New Age International Publishers, 2nd Edn.
6) Heat and Thermodynamics- Brij Lal and N Subramanyam, S Chand & Co, New Delhi -1985.
7) Heat and Thermodynamics – D S Mathur, SChand & Co, New Delhi, 5th Edition (2004).
8) Heat and Thermodynamics and Statistical Physics (XVII Edition) –Singhal, Agarwal and Satyaprakash.
9) Introduction to Thermoelectricity: H. Julian Goldsmith, Springer Science & Business Media, (2009).
10) Optics, Ajoy Ghatak, Tata Mc Graw Hill, 4th Edition
11) Introduction to Modern Optics, Ajoy Ghatak, Tata McGraw Hill Publications (**2009**).
12) Fundamentals of Physics by Halliday, Resnick and Walker, Asian Books Private Limited, New Delhi, 5th Edition, (**1994)**
13) A K Ghatak and K Thyagarajan, Contemporary Optics, Macmillan/Premium Publishing Corp(**1978**).
14) Jenkins and White, Optics, McGraw Hill Education India Pvt Ltd 4th ed(**2011**).
15) Optics, Brij Lal and Subramaniam, S Chand & Company, 22nd Edition, (**1994**).
16) Principles of Optics, B K Mathur, Gopal Printing Press, Kanpur, 6th Edition, (**1996**).
17) Geometrical Optics (I-Edition) **–** D.P.Acharya (Oxford & IBH Pub. Co., 1970).
18) Optics and Spectroscopy (VI Edition) **–** Murugeshan, Kiruthiga and ShivaPrasad (S.Chand).
19) Fundamentals of Optics (V-Edition) **–** Khanna and Bedi (R.Chand, New Delhi).
20) Geometrical Optics: A. Verstraetin

Practical

Paper Code: PHYDSCP4.1 **Paper Title:** **Practical IV**

Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10

Credits : 1

1. Dispersive Power of Prism
2. Determination of thermo emf
3. Thermoelectric power using potentiometer
4. Determination of wavelength of monochromatic light using single slit / plane transmission grating.
5. Diffraction Grating in minimum Deviation Position
6. Diffraction Grating in Normal Position
7. Newton's Rings : Determination of Radius of curvature of Plano Convex lens
8. Newton's Rings : Determination of RI of Water
9. Fresnel's Biprism – Determination of wavelength of monochromatic light.
10. Resolving Power of Telescope
11. Resolving Power of Grating
12. Resolving Power of Prism
13. Specific rotation of optically active solution using Polarimeter
14. Verification of Brewster's Law
15. Stefan's constant by black body radiation.

Note :

1. Experiments are of three hours duration.
2. Minimum of eight experiments to be performed.

References:

1. D P Khandelwal – A Laboratory Manual of Physics for Undergraduate Classes, Vikas Publications First ed (**1985**)
2. Advanced Practical Physics for Students – Worsnop & Flint, Methuen & Co, London.
3. An Advanced Course in Practical Physics , D Chattopadhyay, P C Rakshit, B Saha, New Central Book Agency (P) Limited, Kolkata, Sixth Revised Edition, (**2002)**
4. BSC, Practical Physics, CL Arora, SChand & Co, New Delhi, (**2007**) Revised Edition.
5. B.Sc. Practical Physics, Geeta Sanon R. Chand & Co. New Delhi

Fourth Semester B.Sc. (Physics) Skill Enhancement Course

Paper Code: PHYDSCT4.2 **Paper Title:** Renewable Energy Sources
Teaching Hours: 2Hrs / Week **Marks:** Th-40+IA-10
Total hours:30 **Credits :**2

The aim of this course is not just to impart theoretical knowledge to the students but to provide them with exposure and hands-on learning wherever possible

Unit I

Fossil fuels and Alternate Sources of energy: Fossil fuels and Nuclear Energy, their limitation, need of renewable energy, non-conventional energy sources. An overview of developments in Offshore Wind Energy, Tidal Energy, Wave energy systems, Ocean Thermal Energy Conversion, solar energy, biomass, biochemical conversion, biogas generation, geothermal energy tidal energy, Hydroelectricity.

Solar energy: Solar energy, its importance, storage of solar energy, solar pond, non convective solar pond, applications of solar pond and solar energy, solar water heater, flat plate collector, solar distillation, solar cooker, solar green houses, solar cell, absorption air conditioning. Need and characteristics of photovoltaic (PV) systems. Sun tracking systems.

Wind Energy harvesting: Fundamentals of Wind energy, Wind Turbines and different electrical machines in wind turbines, Power electronic interfaces, and grid interconnection topologies.

Ocean Energy: Ocean Energy Potential against Wind and Solar, Wave Characteristics. Wave Energy Devices. Tide characteristics and Statistics, Tide Energy Technologies, Ocean Thermal Energy.

15 Hours

Unit II

Geothermal Energy: Geothermal Resources, Geothermal Technologies.

Hydro Energy: Hydropower resources, hydropower technologies, environmental impact of hydro power sources.

Piezoelectric Energy harvesting: Introduction, Physics and characteristics of piezoelectric effect, materials and mathematical description of piezoelectricity, Piezoelectric parameters and modeling piezoelectric generators, Piezoelectric energy harvesting applications, Human power.

Electromagnetic Energy Harvesting: Linear generators, physics mathematical models, recent applications. Carbon captured technologies, cell, batteries, power consumption.
Environmental issues and Renewable sources of energy, sustainability.

15 Hours

Demonstrations and Experiments

1. Demonstration of Training modules on Solar energy, wind energy, etc.
2. Conversion of vibration to voltage using piezoelectric materials
3. Conversion of thermal energy into voltage using thermoelectric modules.

References:

1. Non-conventional energy sources - G.D Rai - Khanna Publishers, New Delhi
2. Solar energy - M P Agarwal - S Chand and Co. Ltd.

3. Solar energy - Suhas P Sukhative Tata McGraw - Hill Publishing Company Ltd.
4. Godfrey Boyle, “Renewable Energy, Power for a sustainable future”, 2004,
5. Oxford University Press, in association with The Open University.
6. Dr. P Jayakumar, Solar Energy: Resource Assesment Handbook, 2009
7. J.Balfour, M.Shaw and S. Jarosek, Photovoltaics, Lawrence J Goodrich (USA).
8. http://en.wikipedia.org/wiki/Renewable_energy

Fifth Semester B.Sc. (Physics)

Paper Code:PHYDSCT5.1 **Paper Title:** Mathematical Physics – I, Nuclear and Particle Physics and Classical Mechanics

Teaching Hours: 4 Hrs / Week **Marks:** Th-80+IA-20

Total hours:60 **Credits :**3

Unit I

MATHEMATICAL PHYSICS – I

INTEGRAL TRANSFORMS

Fourier Series: Periodic functions. Orthogonality of sine and cosine functions, Dirichlet Conditions (Statement only). Expansion of periodic functions in a series of sine and cosine functions and determination of Fourier coefficients. Complex representation of Fourier series. Expansion of functions with arbitrary period. Expansion of non-periodic functions over an interval. Even and odd functions and their Fourier expansions. Application. Summing of Infinite Series.

Laplace transform: Definition, transform of elementary functions , inverse transforms, transform of derivations, differentiation and integration of transforms, solutions of differential equations. Difference between Laplace and Fourier transform.

15 Hours

Unit II

NUCLEAR AND PARTICLE PHYSICS - I

RADIOACTIVE DECAY, DETECTORS AND ACCELERATORS

Radioactive Decay : Laws of radioactive decay, half – life, mean life, decay constant; theory of successive disintegration (expression for number of atoms of n^{th} element in the chain – Bateman equations); radioactive equilibrium (secular and transient - cases of long lived parent, short lived parent, daughter and parent of nearly equal half – life).

Alpha decay : Range and energy, Geiger- Nuttal law , Characteristics of alpha spectrum, Gamow's theory of alpha decay [Barrier height, tunneling effect, $\lambda=Pf$, f is the frequency of collision of nucleon with the potential barrier; P is the probability of transmission through the barrier); Barrier penetrability factor (no derivation). Derivation of Q-value-of alpha decay; Exact energy of alpha particle emitted.

Alpha particle scattering : Rutherford's theory of alpha scattering (assuming the path to be hyperbolic).

Beta decay : Types of beta decay (electron, positron decay and electron capture) Characteristics of beta spectrum and Pauli's neutrino hypothesis.

Detectors : Variation of ionization current with applied voltage in a gas counter, Proportional counter, GM Counter (Construction, working, characteristics, efficiency and quenching).

Particle accelerators : Linear accelerator, Cyclotron, Betatron

15 Hours

Unit III

NUCLEAR AND PARTICLE PHYSICS - II

NUCLEAR REACTIONS AND PARTICLE PHYSICS

NUCLEAR REACTIONS : Types of reactions, Conservation laws in nuclear reactions with examples, derivation of Q – value for reactions using the energy – momentum conservation, exoergic and endoergic reactions, threshold energy , reaction rate, reaction cross – section, concept of direct and compound reactions, resonance reaction; Power reactors.

ELEMENTARY PARTICLES : Classification of elementary particles, Fundamental interactions

(Gravitational, Electromagnetic, Weak, strong – range, relative strength, particle interactions for each); Symmetries and Conservation Laws (momentum, energy, charge, parity, lepton number, baryon number, isospin, strangeness and charm); Concept of Quark Model, Color quantum number and gluons.

15 Hours

Unit IV

CLASSICAL MECHANICS

Lagrangian Mechanics: Constraints, generalized co-ordinates, D Alembert's principle, Lagrange equation from D'Alemberts Principle. Advantage of Lagrangian equation, Velocity dependent potentials and dissipation function. Applications of Lagrangian formulation in case of simple pendulum and Atwood Machine. Hamilton's principle, Derivation of Lagrange's equation from Hamilton's Principle. Symmetry and conservation laws: momentum conservation, cyclic co-ordinates, angular momentum conservation and conservation of energy.

15 Hours

Reference Books:

1) Mathematical Physics ---H. K. Dass and Dr. Rama Verma
2) Mathematical Methods for Physicists (4^{th} Edition) George Arfken and Hans J. Weber Academic Press San Diego(1995).
3) Mathematical Physics - P.K. Chatopadhyay-Wiley Eastern Limited New Delhi (1990).
4) Introduction to mathematical Physics – Charlie Harper, Prentice-Hall of India Private Limited New-Delhi (1995)
5) Mathematical Physics - M.L.Boas
6) Atomic and Nuclear Physics, S. N. Ghoshal: Vol. II. (2000)
7) Alpha, beta and gamma spectroscopy, K. Seighbahn: Vol. I and II, John Wiley (1967)
8) Introductory nuclear Physics by Kenneth S. Krane (Wiley India Pvt. Ltd., 2008).
9) Nuclear Physics, D C Tayal, Himalaya Publishing House, 5^{th} Edition
10) Concepts of nuclear physics by Bernard L. Cohen. (Tata Mcgraw Hill, 1998).
11) Introduction to the physics of nuclei & particles, R.A. Dunlap. (Thomson Asia, 2004)
12) Introduction to Elementary Particles, D. Griffith, John Wiley & Sons 2^{nd} revised ed (**2008**)
13) Quarks and Leptons, F. Halzen and A.D. Martin, Wiley India, New Delhi(**2008**)
14) Basic ideas and concepts in Nuclear Physics - An Introductory Approach by K. Heyde (IOP- Institute of Physics Publishing, (2004).
15) Radiation detection and measurement, G.F. Knoll (John Wiley & Sons, (**2000**).
16) Theoretical Nuclear Physics, J.M. Blatt & V.F.Weisskopf (Dover Pub.Inc., (**1991**)
17) Classical Mechanics: Goldstein, Narosa Publishing Pvt. Ltd. (1998).
18) Introduction to Classical Mechanics: R. G. Takwale & P. S. Puranik.-Tata McGraw Hill, New Delhi (1997).
19) Classical Mechanics, Aruldas

Practical

Paper Code: PHYDSCP5.1 **Paper Title: Practical V**

Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10

Credits : 1

1. Characteristics of GM Tube
2. Verification of Inverse Square law using GM Tube.
3. Attenuation of B-ray using G.M. counter
4. Ionization potential of xenon or mercury
5. Frank Hertz Experiment
6. Calibration of Thermocouple using Meter bridge (Whetsone's bridge)
7. Astable Multivibrator using Transistor
8. Phase Shift Oscillator using Op-Amp
9. Wein Bridge Oscillator using Op-Amp
10. Millikan's oil drop experiment.
11. Determination of e/m by Thomson's method.
12. Op-Amp inverting and non-inverting amplifier – ac or dc.
13. Op-Amp as a differiantial amplifier- Common mode and Differential mode.
14. Op-Amp as summing amplifier- ac and dc.
15. Op-Amp as integrator and differentiator.

Note :

1. Experiments are of three hours duration.
2. Minimum of eight experiments to be performed

References:

1. D P Khandelwal – A Laboratory Manual of Physics for Undergraduate Classes, Vikas Publications First ed (**1985**)
2. Advanced Practical Physics for Students – Worsnop & Flint, Methuen & Co, London.
3. An Advanced Course in Practical Physics , D Chattopadhyay, P C Rakshit, B Saha, New Central Book Agency (P) Limited, Kolkata, Sixth Revised Edition, (**2002)**
4. BSC, Practical Physics, CL Arora, SChand & Co, New Delhi, (**2007**) Revised Edition.
5. B.Sc. Practical Physics, Geeta Sanon R. Chand & Co. New Delhi

Fifth Semester B.Sc. (Physics) Elective I

Paper Code: PHYDSCT5.2A **Paper Title:** Quantum Mechanics–I, Electronics and Optoelectronics.

Teaching Hours: 4 Hrs / Week **Marks:** Th-80+IA-20

Total hours:60 **Credits :**3

Unit I

QUANTUM MECHANICS – I

Failure of Classical Physics to explain the phenomena such as stability of atom, atomic spectra, black body radiation, photoelectric effect, Compton effect and specific heat of solids, Planck's quantum theory, Explanation of the above effects on the basis of quantum mechanics [Experimental observation, failure of classical theory, quantum mechanical explanation, Photoelectric effect -Einstein's explanation, Compton Effect – mention of expression for wavelength shift (no derivation), Specific heat of solids -Einstein's and Debye's explanation of specific heat (qualitative). Stability of atom and atomic spectra, Black body radiation [Mention of Planck's equation, arrive at Wien's and Rayleigh-Jean's equation for energy distribution from Planck's equation].

de Broglie's hypothesis of matter waves (λ in terms of momentum, energy, temperature for monatomic gas molecules); Thomson's experiment; Davisson and Germer's experiment – normal incidence method; Concept of wave packet, Group velocity and particle velocity (relation between group velocity and particle velocity) Heisenberg's uncertainty principle - different forms; Gamma ray microscope experiment; Application to Non – existence of electron in nucleus.

15 Hours

Unit II

ELECTRONICS - I

Semiconductors

Distinction between metals, semiconductors and insulators based on band theory (qualitative). Intrinsic semiconductors - concept of holes – effective mass - expression for carrier concentration (derivation for both holes and electrons) and electrical conductivity – extrinsic semiconductors – concept of doping. Formation of P-N junction, depletion region, barrier potential (qualitative), Biased P-N junction, drift and diffusion current –expression for diode current.

Special Diodes: Zener diode – characteristics and its use as a voltage regulator. Photo diodes, Solar cells and LED (working principle with energy level diagram).

Transistors: Transistor action, Characteristics (CE mode), DC Biasing , Load line analysis (Operating Point, Fixed Bias – Forward bias of Base – Emitter, collector – emitter loop, transistor saturation, Load line analysis ; Voltage divider bias – Transistor saturation, Load line analysis)

Transistor as an amplifier(CE mode); . H-parameters.

15 Hours

Unit III

ELECTRONICS - II

Oscillators:Transistor as an oscillator, comparison between amplifier and oscillator, Classification of oscillators-damped and undamped oscillators, the oscillatory circuit, Barkhausen Criterion, frequency of oscillatory current, essentials of a feedback LC oscillator. Hartely and Phase shift oscillators

Field Effect Transistor (FET)

FET-Types, characteristics and parameters. FET as a common source amplifier (Qualitative).

Operational amplifiers

Block Diagram of an OPAMP, Characteristics of an Ideal and Practical Operational Amplifier (IC 741), Open loop configuration - Limitations, Gain Bandwidth Product, Frequency Response, CMRR, Slew Rate and concept of Virtual Ground.

Feedback concepts, Advantages of feedback, types of feedback, Expression for Gain; OPAMP as a feedback amplifier – Non – Inverting and Inverting amplifier, Modification of input and output impedances with feedback ; Voltage follower; Differential amplifier with feedback.

Linear Applications - frequency response of Low pass, high pass and band pass filters (first order), inverting summing amplifier, ideal Differentiator, Integrator.

DIGITAL ELECTRONICS

Number Systems : binary, octal, hexadecimal (interconversions); Number codes : BCD, Gray Code (conversions to other systems); Signed Numbers; Arithmetic using Radix and Radix -1 complement.

Logic gates and truth tables : OR gate, AND gate; Inverter (the NOT function); NAND and NOR; exclusive OR; exclusive NOR.

15 Hours

Unit IV

OPTOELECTRONICS

Light Emitting Diodes, Photo Diodes, Principle of LED with energy level diagram, Semiconductor Laser Diodes: homojunction and heterojunction laser diodes principle (Pin, Avalanche diodes), Photo transistor, Opto-coupler.

Optical fiber: description and classification; Why glass fibers? Types of Optical fibers (Single mode, Multi mode optical fibres), Ray dispersion in multi-mode step index fibers. Grading, Numerical aperture (derivation), Coherent bundle, Transmission loss: bending loss and splicing loss, Attenuation and Distortion, Fiber Optical communication system (Block diagram with each block explanation).

15 Hours

Reference Books:

1) Quantum Mechanics, B.H. Bransden and C.J. Joachain, 2nd Edition, Pearson Education (2004)
2) Introduction to Quantum Mechanics, David J. Griffiths, 2nd Edition, Pearson Education ,(2005)
3) Modern Quantum Mechanics, J.J. Sakurai, Pearson Education, (2000)
4) Principles of Quantum Mechanics, Ghatak and Lokanathan, Macmillan, (2004)
5) Concepts of Modern Physics, Beiser 3rd edition, Student edition, New Delhi (1981).
6) Principles of Electronics by V K Mehta and Rohit Mehta, SChand & Company, Eleventh Edition, (2008).
7) Electricity & Electronics, D C Tayal, Himalaya Publishing House, Sixth Edition(1988)
8) Basic Electronics & Linear Circuits, NN Bhargava, DC Kulshrestha & SC Gupta, TMH Publishing Company Limited, 28th Reprint, (1999).
9) Basic electronics by B Basavraj, Vikas publication, 2nd edition.
10) Op-amp and linear integrated circuits, R. A. Gayakwad, Pearson education.
11) Electronic devises, Thomas Floyd, Pearson publications (ninth edition 201).
12) Optoelectronics – By Ajay Ghatak.
13) Fiber optic communication – By D.C. Agarwal.
14) Fiber optical communication – By Keiser.
15) Introduction to Optical Electronics – By J.Wilson & Hawkes PHI.

Practical: Elective I

Paper Code: PHYDSCP 5.2 **Paper Title:** **Practical VIA**

Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10

Credits : 1

1. Transistor as CE Amplifier
2. H- Parameter of transistor
3. Heartley Oscillator using Transistor
4. Phase Shift Oscillator using Transistor
5. FET Characteristics
6. FET as an Amplifier
7. Use of Basics gates to verify and design AND, OR, NOT and XOR gates using NAND gates.
8. De Morgan Theorems.
9. To covert Boolean Expression in to Logic gate circuit and assemble it using logic gate IC's.
10. Low Pass Filter Using Op-Amp
11. High Pass Filter Using Op-Amp
12. Band Pass Filter Using Op-Amp
13. Transistor as an Emitter Follower.
14. Regulated power supply using Zener diode.

Note :

1. Experiments are of three hours duration.
2. Minimum of eight experiments to be performed

References :

1. Worsnop and Flint , Advanced practical physics for students, Asia Pub.(**1979**)
2. Singh and Chauhan, Advanced practical physics, 2 vols., Pragati prakashan, (**1976**)
3. Misra and Misra, Physics Lab. Manual, South Asian publishers (**2000**)
4. Gupta and Kumar, Practical physics, Pragati prakashan, (**1976**)
5. Ramalingom & Raghuopalan : A Lab. Course in Electronics
6. Bharagav et al : Electronics, TTI tata MacGraw Hill 33rd Reprint (**2002**)

Fifth Semester B.Sc. (Physics) Elective II

Paper Code:PHYDSCT5.2B **Paper Title:** Mathematical Physics, Nuclear and Particle Physics and Classical Mechanics

Teaching Hours: 4 Hrs / Week **Marks:** Th-80+IA-20

Total hours:60 **Credits :**3

Unit I

ELECTRONICS - I

Semiconductors

Distinction between metals, semiconductors and insulators based on band theory (qualitative). Intrinsic semiconductors - concept of holes – effective mass - expression for carrier concentration (derivation for both holes and electrons) and electrical conductivity – extrinsic semiconductors – concept of doping. Formation of P-N junction, depletion region, barrier potential (qualitative), Biased P-N junction, drift and diffusion current –expression for diode current.

Special Diodes: Zener diode – characteristics and its use as a voltage regulator. Photo diodes, Solar cells and LED (working principle with energy level diagram).

Transistors: Transistor action, Characteristics (CE mode), DC Biasing , Load line analysis (Operating Point, Fixed Bias – Forward bias of Base – Emitter, collector – emitter loop, transistor saturation, Load line analysis ; Voltage divider bias – Transistor saturation, Load line analysis)

Transistor as an amplifier(CE mode); . H-parameters.

15 Hours

Unit II

ELECTRONICS - II

Oscillators:Transistor as an oscillator, comparison between amplifier and oscillator, Classification of oscillators-damped and undamped oscillators, the oscillatory circuit, Barkhausen Criterion, frequency of oscillatory current, essentials of a feedback LC oscillator. Hartely and Phase shift oscillators

Field Effect Transistor (FET)

FET-Types, characteristics and parameters. FET as a common source amplifier (Qualitative).

Operational amplifiers

Block Diagram of an OPAMP, Characteristics of an Ideal and Practical Operational Amplifier (IC 741), Open loop configuration - Limitations, Gain Bandwidth Product, Frequency Response, CMRR, Slew Rate and concept of Virtual Ground.

Feedback concepts, Advantages of feedback, types of feedback, Expression for Gain; OPAMP as a feedback amplifier – Non – Inverting and Inverting amplifier, Modification of input and output impedances with feedback ; Voltage follower; Differential amplifier with feedback.

Linear Applications - frequency response of Low pass, high pass and band pass filters (first order), inverting summing amplifier, ideal Differentiator, Integrator.

DIGITAL ELECTRONICS

Number Systems : binary, octal, hexadecimal (interconversions); Number codes : BCD, Gray Code (conversions to other systems); Signed Numbers; Arithmetic using Radix and Radix -1 complement.

Logic gates and truth tables : OR gate, AND gate; Inverter (the NOT function); NAND and NOR; exclusive OR; exclusive NOR.

15 Hours

Unit III

OPTOELECTRONICS

Light Emitting Diodes, Photo Diodes, Principle of LED with energy level diagram, Semiconductor Laser Diodes: homojunction and heterojunction laser diodes principle (Pin, Avalanche diodes), Photo transistor, Opto-coupler.

Optical fiber: description and classification; Why glass fibers? Types of Optical fibers (Single mode, Multi mode optical fibres), Ray dispersion in multi-mode step index fibers. Grading, Numerical aperture (derivation), Coherent bundle, Transmission loss: bending loss and splicing loss, Attenuation and Distortion, Fiber Optical communication system (Block diagram with each block explanation).

15 Hours

Unit IV

QUANTUM MECHANICS – I

Failure of Classical Physics to explain the phenomena such as stability of atom, atomic spectra, black body radiation, photoelectric effect, Compton effect and specific heat of solids, Planck's quantum theory, Explanation of the above effects on the basis of quantum mechanics [Experimental observation, failure of classical theory, quantum mechanical explanation, Photoelectric effect -Einstein's explanation, Compton Effect – mention of expression for wavelength shift (no derivation), Specific heat of solids -Einstein's and Debye's explanation of specific heat (qualitative). Stability of atom and atomic spectra, Black body radiation [Mention of Planck's equation, arrive at Wien's and Rayleigh-Jean's equation for energy distribution from Planck's equation].

de Broglie's hypothesis of matter waves (λ in terms of momentum, energy, temperature for monatomic gas molecules); Thomson's experiment; Davisson and Germer's experiment – normal incidence method; Concept of wave packet, Group velocity and particle velocity (relation between group velocity and particle velocity) Heisenberg's uncertainty principle - different forms; Gamma ray microscope experiment; Application to Non – existence of electron in nucleus.

15 Hours

Reference Books:

16) Quantum Mechanics, B.H. Bransden and C.J. Joachain, 2nd Edition, Pearson Education (2004)
17) Introduction to Quantum Mechanics, David J. Griffiths, 2nd Edition, Pearson Education ,(2005)
18) Modern Quantum Mechanics, J.J. Sakurai, Pearson Education, (2000)
19) Principles of Quantum Mechanics, Ghatak and Lokanathan, Macmillan, (2004)
20) Concepts of Modern Physics, Beiser 3rd edition, Student edition, New Delhi (1981).
21) Principles of Electronics by V K Mehta and Rohit Mehta, SChand & Company, Eleventh Edition, (2008).
22) Electricity & Electronics, D C Tayal, Himalaya Publishing House, Sixth Edition(1988)
23) Basic Electronics & Linear Circuits, NN Bhargava, DC Kulshrestha & SC Gupta, TMH Publishing Company Limited, 28th Reprint, (1999).
24) Basic electronics by B Basavraj, Vikas publication, 2nd edition.
25) Op-amp and linear integrated circuits, R. A. Gayakwad, Pearson education.
26) Electronic devises, Thomas Floyd, Pearson publications (ninth edition 201).
27) Optoelectronics – By Ajay Ghatak.
28) Fiber optic communication – By D.C. Agarwal.
29) Fiber optical communication – By Keiser.
30) Introduction to Optical Electronics – By J.Wilson & Hawkes PHI.

Practical: Elective II

Paper Code: PHYDSEP5.2B **Paper Title: Practical VIB**

Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10

Credits : 1

1. Transistor as CE Amplifier
2. H- Parameter of transistor
3. Heartley Oscillator using Transistor
4. Phase Shift Oscillator using Transistor
5. FET Characteristics
6. FET as an Amplifier
7. Use of Basics gates to verify and design AND, OR, NOT and XOR gates using NAND gates.
8. De Morgan Theorems.
9. To covert Boolean Expression in to Logic gate circuit and assemble it using logic gate IC's.
10. Low Pass Filter Using Op-Amp
11. High Pass Filter Using Op-Amp
12. Band Pass Filter Using Op-Amp
13. Transistor as an Emitter Follower.
14. Regulated power supply using Zener diode.

Note :

1. Experiments are of three hours duration.
2. Minimum of eight experiments to be performed

References :

1. Worsnop and Flint , Advanced practical physics for students, Asia Pub.(**1979**)
2. Singh and Chauhan, Advanced practical physics, 2 vols., Pragati prakashan, (**1976**)
3. Misra and Misra, Physics Lab. Manual, South Asian publishers (**2000**)
4. Gupta and Kumar, Practical physics, Pragati prakashan, (**1976**)
5. Ramalingom & Raghuopalan : A Lab. Course in Electronics
6. Bharagav et al : Electronics, TTI tata MacGraw Hill 33rd Reprint (**2002**)

Fifth Semester B.Sc. (Physics) Skill Enhancement Course

Paper Code:PHYSECT5.1 **Paper Title:** Basic Instrumentation Skills

Teaching Hours: 2Hrs / Week **Marks:** Th-40+IA-10

Total hours :30 **Credits :**2

This course is to get exposure with various aspects of instruments and their usage through hands-on mode. Experiments listed below are to be done in continuation of the topics

Unit I

Basic of Measurement: Instruments accuracy, precision, sensitivity, resolution range etc. Errors in measurements and loading effects. **Multimeter:** Principles of measurement of dc voltage and dc current, ac voltage, ac current and resistance. Specifications of a multimeter and their significance. **Electronic Voltmeter:** Advantage over conventional multimeter for voltage measurement with respect to input impedance and sensitivity. Principles of voltage, measurement (block diagram only). Specifications of an electronic Voltmeter/ Multimeter and their significance. **AC millivoltmeter:** Type of AC millivoltmeters: Amplifier- rectifier, and rectifier- amplifier. Block diagram ac millivoltmeter**,** specifications and their significance.

Cathode Ray **Oscilloscope:** Block diagram of basic CRO. Construction of CRT, Electron gun, electrostatic focusing and acceleration (Explanation only– no mathematical treatment), brief discussion on screen phosphor, visual persistence & chemical composition. Time base operation, synchronization. Front panel controls. Specifications of a CRO and their significance.

15 Hours

Unit II

Use of CRO for the measurement of voltage (dc and ac frequency, time period. Special features of dual trace, introduction to digital oscilloscope, probes. Digital storage Oscilloscope: Block diagram and principle of working.

Signal Generators and Analysis Instruments: Block diagram, explanation and specifications of low frequency signal generators. pulse generator, and function generator. Brief idea for testing, specifications. Distortion factor meter, wave analysis.

Impedance Bridges & Q-Meters: Block diagram of bridge. working principles of basic (balancing type) RLC bridge. Specifications of RLC bridge. Block diagram & working principles of a Q- Meter. Digital LCR bridges.

Digital Multimeter: Block diagram and working of a digital multimeter. Working principle of time interval, frequency and period measurement using universal counter/frequency counter, time-base stability, accuracy and resolution. **15 Hours**

The test of lab skills will be of the following test items:

1. Use of an oscilloscope.
2. CRO as a versatile measuring device.
3. Circuit tracing of Laboratory electronic equipment,
4. Use of Digital multimeter/VTVM for measuring voltages
5. Circuit tracing of Laboratory electronic equipment,
6. Winding a coil / transformer.
7. Study the layout of receiver circuit.
8. Trouble shooting a circuit

9. Balancing of bridges

Laboratory Exercises:

1. To observe the loading effect of a multimeter while measuring voltage across a low resistance and high resistance.
2. To observe the limitations of a multimeter for measuring high frequency voltage and currents.
3. To measure Q of a coil and its dependence on frequency, using a Q- meter.
4. Measurement of voltage, frequency, time period and phase angle using CRO.
5. Measurement of time period, frequency, average period using universal counter/ frequency counter.
6. Measurement of rise, fall and delay times using a CRO.
7. Measurement of distortion of a RF signal generator using distortion factor meter.
8. Measurement of R, L and C using a LCR bridge/ universal bridge.

Open Ended Experiments:

1. Using a Dual Trace Oscilloscope
2. Converting the range of a given measuring instrument (voltmeter, ammeter)

References:

1. A text book in Electrical Technology - B L Theraja - S Chand and Co.
2. Performance and design of AC machines - M G Say ELBS Edn.
3. Digital Circuits and systems, Venugopal, 2011, Tata McGraw Hill.
4. Logic circuit design, Shimon P. Vingron, 2012, Springer.
5. Digital Electronics, Subrata Ghoshal, 2012, Cengage Learning.
6. Electronic Devices and circuits, S. Salivahanan & N. S.Kumar, 3rd Ed., 2012, Tata Mc-Graw Hill
7. Electronic circuits: Handbook of design and applications, U.Tietze, Ch.Schenk, 2008, Springer
8. Electronic Devices, 7/e Thomas L. Floyd, 2008, Pearson India

Sixth Semester B.Sc. (Physics)

Paper Code: PHYDECT6.1 **Paper Title:** Mathematical Physics – II. Atomic Molecular and Optical Physics and Atmospheric Physics

Teaching Hours: 4Hrs / Week **Marks:** Th-80+IA-20

Total hours:60 **Credits :**3

Unit I

MATHEMATICAL PHYSICS - II

Frobenius Method and Special Functions: Singular Points of Second Order Linear Differential Equations and their importance. Frobenius method and its applications to differential equations. Legendre Polynomials: Rodrigues Formula, generating functions and recursion relations, Orthogonality and normalization. Bessel function of the first kind, recursion relations, orthogonality. Hermite functions, generating functions and recursion relations, orthogonality. and Laguerre and associated Laguerre polynomials, recursion relations.

15 Hours

Unit II

ATOMIC PHYSICS.

Vector Model of the Atom

Review of Bohr's theory of hydrogen atom, Sommerfeld's modification of the Bohr atomic model (qualitative). Spatial quantization and spinning electron. Different quantum numbers associated with the vector atom model, Spectral terms and their notations, Selection rules, Coupling schemes(*l*-s and j-j coupling in multi electron systems), Pauli's Exclusion Principle, Expression for maximum number of electrons in an orbit. Spectra of alkali elements (sodium D-line), Larmor precession, Bohr magneton, Stern-Gerlach Experiment **.** Zeeman Effect- Experimental study, theory of normal and anomalous Zeeman effect based on quantum theory. Paschen Back effect (qualitative).

15 Hours

Unit III

MOLECULAR PHYSICS AND LASERS.

Molecular Physics: Pure rotational motion, Spectrum and selection rules; Vibrational motion, vibrational spectrum and selection rules; Rotation-Vibration spectrum; Scattering of light-Tyndall scattering, Rayleigh scattering and Raman scattering. Experimental study of Raman effect, Quantum theory of Raman effect - Applications.

Lasers

Introduction; Spontaneous and stimulated emission; Einstein's coefficients and optical amplification; Population inversion; Main components of a laser; Lasing action; Ruby Laser - construction and working - energy level diagram; He-Ne Laser - construction and working - energy level diagram; Spatial Coherence and directionality, estimates of beam intensity, temporal coherence and spectral energy density.

15 Hours

Unit IV

ATMOSPHERIC PHYSICS

Fixed gases and variable gases; Temperature structure of the atmosphere; Hydrostatic balance,

Variation of pressure with altitude, scale height; Relative and Absolute humidity.
Beer's law (derivation); Global energy balance for earth – atmosphere system, Greenhouse effect; Atmosphere dynamics –Accelerated rotational frames of reference – Centripetal and Coriolis force (derivation), Gravity and pressure gradient forces (with derivation), Applications of Coriolis force – Formation of trade winds, cyclones, erosion of river banks

15 Hours

Reference Books:

1) Mathematical Physics ---H. K. Dass and Dr. Rama Verma
2) Mathematical Methods for Physicists (4th Edition) George Arfken and Hans J. Weber Academic Press San Diego(1995).
3) Mathematical Physics - P.K. Chatopadhyay-Wiley Eastern Limited New Delhi (1990).
4) Introduction to mathematical Physics – Charlie Harper, Prentice-Hall of India Private Limited New-Delhi (1995)
5) Mathematical Physics - M.L.Boas
6) Introduction to Atomic Physics – H.E. White
7) Introduction to Modern Physics – H.S. Mani, G.K. Mehta-West Press (1989)
8) Physics of Atoms and Molecules – 2nd Ed., Brans den B.H. and JoachainC.J., Pearson Education, India (2006)
9) Principles of Modern Physics, A.P. French, John Wiley, London (1958).
10) Modern Physics - S.N. Ghoshal, Part 1 and 2 S. Chand and Company (1996).
11) Physics of the Atom, Wehr et. al. McGraw Hill
12) Lasers and Non-Linear Optics: B.B.Laud, Wiley Eastern Ltd., New Delhi (1991).
13) Principles of Lasers : O. Svelto, Plenum Press, N. Y. (1982).
14) Laser Electronics : Joseph T. Verdeyen, Prentice-Hall of India Pvt. Ltd. NewDelhi (1989).
15) Lasers : Theory & Applications : K. Thyagarajan & A. Ghatak, MacMillan India, New Delhi (1981).
16) Laser Fundamentals : W.Q. Silfvast
17) Laser Principles & Applications : J. Wilson & J.F.B. Hawkes, Prentice-Hall Intl. Inc. (1983)
18) An Introduction to Lasers & their Applications : Donald C. O' Shea, W. Russell Callen & William T. Rhodes, Addison-Wesley, N. Y. (1977).
19) Introduction to atmospheric physics, David G Andrews, Cambridge university press publisher, 2nd edition.
20) Atmospheric science, John M Wallace, Peter V Hobbs, Academic press publisher, 2nd edition.

Practical

Paper Code: PHYDSCP6.1 **Paper Title: Practical VII**

Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10

Credits : 1

1. Air Wedge: Thickness of thin paper by measuring width of fringes produced by Air wedge film

2. Divergence of laser beam and finding angular spread
3. Determination of unknown wavelength by Grating element (using red and green diode lasers)
4. Zeeman Effect experiment.
5. Rydberg Constant: wavelength of spectral lines of Hydrogen and Rydberg constant calculation (assignment)
6. Study of Hydrogen Spectrum
7. Determination of e/m by Thomson Method.
8. Characteristics of Laser Diode
9. Optical fibre; Bending loss and attenuation
10. Zener Diode as Voltage regulator
11. Photoconductive cell characteristics
12. Photovoltaic Cell characteristics
13. Verification of Beer's law.
14. Relative humidity using hair hygrometer.
15. Estimation of relative humidity using wet and dry bulb thermometer.

Note :

1. Experiments are of three hours duration.
2. Minimum of eight experiments to be performed
3. **References :**

1. IGNOU : Practical Physics Manual
2. Saraf : Experiment in Physics Vikas Publications
3. S.P. Singh : Advanced Practical Physics
4. Melissons : Experiments in Modern Physics
5. Misra and Misra, Physics Lab. Manual, South Asian publishers, 2000
6. Gupta and Kumar, Practcal physics, Pragati prakashan, 1976.

Sixth Semester B.Sc. (Physics) Elective III

Paper Code:PHYDECT6.2A **Paper Title:** Quantum Mechanics-Ii, Condensed Matter Physics – I and nanomaterials

Teaching Hours: 4Hrs / Week **Marks:** Th-80+IA-20

Total hours :60 **Credits :**3

Unit I

QUANTUM MECHANICS-II

The concept of wave function, physical significance of wave function. Development of time dependent and time independent Schrodinger's wave equation. Max Born's interpretation of the wave function. Normalization and expectation values, Quantum mechanical operators, Eigen values and Eigen functions. Applications of Schrodinger's equation – free particle, particle in one dimensional box- derivation of Eigen values and Eigen function for infinite and finite potential well and tunnelling; Development of Schrodinger's equation for One dimensional Linear harmonic oscillator, Rigid rotator, Hydrogen atom – mention of Eigen function and Eigen value for ground state. **15 Hours**

Unit II

CONDENSED MATTER PHYSICS – I

Crystal systems and X-rays: Crystal structure **:**Lattice, Lattice translational vectors, Basis of crystal structure, Types of unit cells, Coordination numbers, Bravais lattices, Seven crystal system, Miller Indices, Expression for inter planner spacing, Crystal structure of NaCl and KCl. Crystal diffraction: Production and properties of X rays, Coolidge tube, Continuous and characteristic X-ray spectra; Moseley's law. , X-Ray diffraction, Scattering of X-rays, Bragg's law. Bragg's X-ray spectrometer-powder diffraction method of crystal structure determination.

Free electron theory of metals: Classical free electron model (Drude-Lorentz model), expression for electrical and thermal conductivity, Weidman-Franz law, Failure of classical free electron theory; Quantum free electron theory, Fermi level and Fermi energy Fermi-Dirac distribution function (expression for probability distribution F(E), statement only); Fermi Dirac distribution at T=0 and $E<E_f$, at $T \neq 0$ and $E>E_f$, F(E) vs E plot at T = 0 and $T \neq 0$. Density of states for free electrons (no derivation); Specific heats of solids: Classical theory, Einstein's and Debye's theory of specific heats. Hall Effect in metals.

Superconductivity : Introduction – Experimental facts – Zero resistivity – The critical field – The critical current density – Meissner effect, Type I and type II superconductors.

15 Hours

Unit III

Magnetic Properties of Matter and Dielectrics

Magnetic Properties of Matter

Review of basic formulae : Magnetic intensity, magnetic induction, permeability, magnetic susceptibility, magnetization (M), Classification of Dia – , Para –, and ferro – magnetic materials;

Classical Langevin Theory of dia – and Paramagnetic Domains. Quantum Mechanical Treatment of Paramagnetism. Curie's law, Ferromagnetism and Ferromagnetic Domains. Discussion of B-H Curve. Hysteresis and Energy Loss, Hard and Soft magnetic materials

Dielectrics : Static dielectric constant, polarizability (electronic, ionic and orientation), calculation of Lorentz field (derivation), Clausius-Mosotti equation (derivation), dielectric loss, dielectric breakdown. Electrostriction (qualitative). Piezo electric effect, cause, examples and applications.

15 Hours

Unit IV

NANOMATERIALS

Nanomaterials – Introduction, size effect-Surface to volume ratio; distinction between nanomaterials and bulk materials in terms of energy band. Classification – Electron confinement 0D, 1D, 2D- energy levels as a particle in a box (no derivation). Quantum dots, nanowires and nanofilms, Multilayered materials- Fullerene, Carbon Nano Tube (CNT), Graphene (Mention of structures and properties); Synthesis techniques (Top down- Explanation of Milling & bottom up - Sol gel process). Characterisation techniques- (brief description of SEM, TEM, AFM). Determination of particle size from XRD pattern using Debye-Scherrer formula.

Distinct properties of nano materials (Mention- optical, electrical, mechanical and magnetic properties); Mention of applications: (Fuel cells, catalysis, phosphors for HD TV, elimination of pollutants, sensors).

SPECIAL MATERIALS

Liquid crystals: Classification of liquid crystals, Display system. Introduction to polymers, classification and applications.

15 Hours

Reference Books:

1) Quantum Mechanics, ***B.H. Bransden and C.J. Joachain***, 2nd Edition, Pearson Education (**2004**)
2) Introduction to Quantum Mechanics, ***David J. Griffiths***, 2nd Edition, Pearson Education , (**2005**)
3) Modern Quantum Mechanics, ***J.J. Sakurai***, Pearson Education, (**2000**)
4) Principles of Quantum Mechanics, ***Ghatak and Lokanathan***, Macmillan, (**2004**)
5) Introduction to solid State Physics, ***Charles Kittel***, VII edition, (**1996**)
6) Solid State Physics- **A J Dekker**, MacMillan India Ltd, (**2000**)
7) Elementary Solid State Physic, **J P Srivastava**,PHI,(**2008**)
8) Essential of crystallography**, M A Wahab**, Narosa Publications (**2009)**
9) Solid State Physics-**F W Ashcroft and A D Mermin**-Saunders College (**1976**)
10) Solid State Physics-**S O Pillai**-New Age Int. Publishers (**2001**)
11) Solid State Physics-R. K. Puri and V.K. Babber., S.Chand publications,1st Edition(2004).
12) Fundamentals of Solid State Physics-B.S.Saxena,P.N. Saxena,Pragati prakashan Meerut(2017).
13) Condensed Matter Physics by Atulkumar Agarwal,Oxford Book Company(2013)
14) Nano materials, A K Bandopadhyay. New Age International Pvt. Ltd. Publishers (**2007**)
15) Nanocrystals, C. N. Rao, P. John Thomas.
16) Nanotubes and wires, C. N. Rao, A. Govindaraj

Practical: Elective III

Paper Code: PHYDSCP 6.2A **Paper Title: Practical VIIIA**

Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10

Credits : 1

1. Determination of Plank's constant by Photo Cell
2. Hall Effect in semiconductor: determination of mobility, hall coefficient.
3. Eenergy gap of semiconductor (diode/transistor) by reverse saturation method

4. Thermistor energy gap
5. Fermi Energy of Copper
6. Analysis of X-ray diffraction spectra and calculation of lattice parameter.
7. Plank's constant by LED
8. Solar Cell: Fill Factor and Efficiency
9. Specific Heat of Solid by Electrical Method
10. Determination of Dielectric Constant of polar liquid.
11. Determination of dipole moment of organic liquid
12. B-H Curve Using CRO.
13. Calibration of Semiconductor temperature Sensor
14. Spectral Response of Photo Diode and its I-V Characteristics.
15. Determination of particle size from XRD pattern using Debye-Scherrer formula.

Note :

1. Experiments are of three hours duration.
2. Minimum of eight experiments to be performed

References :

1. IGNOU : Practical Physics Manual
2. Saraf : Experiment in Physics, Vikas Publications
3. S.P. Singh : Advanced Practical Physics
4. Melissons : Experiments in Modern Physics
5. Misra and Misra, Physics Lab. Manual, South Asian publishers, (**2000**)
6. Gupta and Kumar, Practical physics, Pragati prakashan, (**1976**)

Sixth Semester B.Sc. (Physics) Elective IV

Paper Code: PHYDECT6.2B **Paper Title:** Modern physics-II
Teaching Hours: 4 Hrs / Week **Marks:** Th-80+IA-20
Total hours :60 **Credits :**3

Unit I

CONDENSED MATTER PHYSICS – I

Crystal systems and X-rays: Crystal structure **:**Lattice, Lattice translational vectors, Basis of crystal structure, Types of unit cells, Coordination numbers, Bravais lattices, Seven crystal system, Miller Indices, Expression for inter planner spacing, Crystal structure of NaCl and KCl. Crystal diffraction: Production and properties of X rays, Coolidge tube, Continuous and characteristic X-ray spectra; Moseley's law. , X-Ray diffraction, Scattering of X-rays, Bragg's law. Bragg's X-ray spectrometer-powder diffraction method of crystal structure determination.

Free electron theory of metals: Classical free electron model (Drude-Lorentz model), expression for electrical and thermal conductivity, Weidman-Franz law, Failure of classical free electron theory; Quantum free electron theory, Fermi level and Fermi energy Fermi-Dirac distribution function (expression for probability distribution F(E), statement only); Fermi Dirac distribution at T=0 and $E<E_f$, at $T\neq 0$ and $E>E_f$, F(E) vs E plot at T = 0 and $T\neq 0$. Density of states for free electrons (no derivation); Specific heats of solids: Classical theory, Einstein's and Debye's theory of specific heats. Hall Effect in metals.

Superconductivity : Introduction – Experimental facts – Zero resistivity – The critical field – The critical current density – Meissner effect, Type I and type II superconductors.

15 Hours

Unit II

Magnetic Properties of Matter and Dielectrics

Magnetic Properties of Matter

Review of basic formulae : Magnetic intensity, magnetic induction, permeability, magnetic susceptibility, magnetization (M), Classification of Dia – , Para –, and ferro – magnetic materials;

Classical Langevin Theory of dia – and Paramagnetic Domains. Quantum Mechanical Treatment of Paramagnetism. Curie's law, Ferromagnetism and Ferromagnetic Domains. Discussion of B-H Curve. Hysteresis and Energy Loss, Hard and Soft magnetic materials

Dielectrics : Static dielectric constant, polarizability (electronic, ionic and orientation), calculation of Lorentz field (derivation), Clausius-Mosotti equation (derivation), dielectric loss, dielectric breakdown. Electrostriction (qualitative). Piezo electric effect, cause, examples and applications.

15 Hours

Unit III

NANOMATERIALS

Nanomaterials – Introduction, size effect-Surface to volume ratio; distinction between nanomaterials and bulk materials in terms of energy band. Classification – Electron confinement 0D, 1D, 2D- energy levels as a particle in a box (no derivation). Quantum dots, nanowires and nanofilms, Multilayered materials- Fullerene, Carbon Nano Tube (CNT), Graphene (Mention of

structures and properties); Synthesis techniques (Top down- Explanation of Milling & bottom up - Sol gel process). Characterisation techniques- (brief description of SEM, TEM, AFM). Determination of particle size from XRD pattern using Debye-Scherrer formula.

Distinct properties of nano materials (Mention- optical, electrical, mechanical and magnetic properties); Mention of applications: (Fuel cells, catalysis, phosphors for HD TV, elimination of pollutants, sensors)

SPECIAL MATERIALS

Liquid crystals: Classification of liquid crystals, Display system. Introduction to polymers, classification and applications.

15 Hours

Unit IV

QUANTUM MECHANICS-II

The concept of wave function, physical significance of wave function. Development of time dependent and time independent Schrodinger's wave equation. Max Born's interpretation of the wave function. Normalization and expectation values, Quantum mechanical operators, Eigen values and Eigen functions. Applications of Schrodinger's equation – free particle, particle in one dimensional box- derivation of Eigen values and Eigen function for infinite and finite potential well and tunnelling; Development of Schrodinger's equation for One dimensional Linear harmonic oscillator, Rigid rotator, Hydrogen atom – mention of Eigen function and Eigen value for ground state.

15 Hours

Reference Books:

1) Quantum Mechanics, ***B.H. Bransden and C.J. Joachain***, 2nd Edition, Pearson Education (**2004**)
2) Introduction to Quantum Mechanics, ***David J. Griffiths***, 2nd Edition, Pearson Education , (**2005**)
3) Modern Quantum Mechanics, ***J.J. Sakurai***, Pearson Education, (**2000**)
4) Principles of Quantum Mechanics, ***Ghatak and Lokanathan***, Macmillan, (**2004**)
5) Introduction to solid State Physics, ***Charles Kittel***, VII edition, (**1996**)
6) Solid State Physics- **A J Dekker**, MacMillan India Ltd, (**2000**)
7) Elementary Solid State Physic, **J P Srivastava**,PHI,(**2008**)
8) Essential of crystallography**, M A Wahab**, Narosa Publications (**2009)**
9) Solid State Physics-**F W Ashcroft and A D Mermin**-Saunders College (**1976**)
10) Solid State Physics-**S O Pillai**-New Age Int. Publishers (**2001**)
11) Solid State Physics-R. K. Puri and V.K. Babber., S.Chand publications,1st Edition(2004).
12) Fundamentals of Solid State Physics-B.S.Saxena,P.N. Saxena,Pragati prakashan Meerut(2017).
13) Condensed Matter Physics by Atulkumar Agarwal,Oxford Book Company(2013)
14) Nano materials, A K Bandopadhyay. New Age International Pvt. Ltd. Publishers (**2007**)
15) Nanocrystals, C. N. Rao, P. John Thomas.
16) Nanotubes and wires, C. N. Rao, A. Govindaraj

Practical: Elective IV

Paper Code: PHYDSCP .2B **Paper Title: Practical VIIIB**

Teaching Hours: 3 Hrs / Week **Marks:** Th-40+IA-10

Credits : 1

1) Determination of Plank's constant by Photo Cell
2) Hall Effect in semiconductor: determination of mobility, hall coefficient.
3) Eenergy gap of semiconductor (diode/transistor) by reverse saturation method
4) Thermistor energy gap
5) Fermi Energy of Copper
6) Analysis of X-ray diffraction spectra and calculation of lattice parameter.
7) Plank's constant by LED
8) Solar Cell: Fill Factor and Efficiency
9) Specific Heat of Solid by Electrical Method
10) Determination of Dielectric Constant of polar liquid.
11) Determination of dipole moment of organic liquid
12) B-H Curve Using CRO
13) Calibration of Semiconductor temperature Sensor
14) Spectral Response of Photo Diode and its I-V Characteristics.
15) Determination of particle size from XRD pattern using Debye-Scherrer formula.

Note :

1. Experiments are of three hours duration.
2. Minimum of eight experiments to be performed.
3. **References :**

1. IGNOU : Practical Physics Manual
2. Saraf : Experiment in Physics, Vikas Publications
3. S.P. Singh : Advanced Practical Physics
4. Melissons : Experiments in Modern Physics
5. Misra and Misra, Physics Lab. Manual, South Asian publishers, (**2000**)
6. Gupta and Kumar, Practical physics, Pragati prakashan, (**1976**)

Sixth Semester B.Sc. (Physics) Skill Enhancement Course

Paper Code: PHYDECT6.3 **Paper Title:** Electric circuits and Networks skills
Teaching Hours: 2 Hrs / Week **Marks:** Th-40+IA-10
Total hours:30 **Credits :**2

The aim of this course is to enable the students to design and trouble shoots the electrical circuits, networks and appliances through hands-on mode

Unit I

Basic Electricity Principles: Voltage, Current, Resistance, and Power. Ohm's law. Series, parallel, and series-parallel combinations. AC Electricity and DC Electricity. Familiarization with multimeter, voltmeter and ammeter.

Understanding Electrical Circuits: Main electric circuit elements and their combination. Rules to analyze DC sourced electrical circuits. Current and voltage drop across the DC circuit elements. Single-phase and three-phase alternating current sources. Rules to analyze AC sourced electrical circuits. Real, imaginary and complex power components of AC source. Power factor. Saving energy and money.

Electrical Drawing and Symbols: Drawing symbols. Blueprints. Reading Schematics. Ladder diagrams. Electrical Schematics. Power circuits. Control circuits. Reading of circuit schematics. Tracking the connections of elements and identify current flow and voltage drop.

Generators and Transformers: DC Power sources. AC/DC generators. Inductance, capacitance, and impedance. Operation of transformers.

Electric Motors: Single-phase, three-phase & DC motors. Basic design. Interfacing DC or AC sources to control heaters & motors. Speed & power of ac motor.

15 Hours

Unit II

Solid-State Devices: Resistors, inductors and capacitors. Diode and rectifiers. Components in Series or in shunt. Response of inductors and capacitors with DC or AC sources

Electrical Protection: Relays. Fuses and disconnect switches. Circuit breakers. Overload devices. Ground-fault protection. Grounding and isolating. Phase reversal. Surge protection. Interfacing DC or AC sources to control elements (relay protection device)

Electrical Wiring: Different types of conductors and cables. Basics of wiring-Star and delta connection. Voltage drop and losses across cables and conductors. Instruments to measure current, voltage, power in DC and AC circuits. Insulation. Solid and stranded cable. Conduit. Cable trays. Splices: wirenuts, crimps, terminal blocks, split bolts, and solder. Preparation of extension board.

15 Hours

Reference Books:

1. A text book in Electrical Technology - B L Theraja - S Chand & Co.
2. A text book of Electrical Technology - A K Theraja
3. Performance and design of AC machines - M G Say ELBS Edn.

Question Paper pattern

First Semester B.Sc. Degree Examination, December 2020
(CBCS Scheme-2020-21: Regular)
PHYSICS
PHYDSC T11: Mechanics and Theory of relativity

Time: 3 hours Max. Marks: 80

1.		**Answer any 10 sub question**	**10 x 2 = 20**
	i.		
	ii.		
	iii.		
	iv.		
	v.		
	vi.		
	vii.		
	viii.		
	ix.		
	x.		
	xi.		
	xii.		
2.			
	(a)		5 marks
	(b)		10 marks
		OR	
3.	(a)		5 marks
	(b)		10 marks
4	(a)		5 marks
	(b)		10 marks
		OR	
5	(a)		5 marks
	(b)		10 marks
6.	(a)		5 marks
	(b)		10 marks
		OR	
7.	(a)		5 marks
	(b)		10 marks

8.	(a)	5 marks
	(b)	10 marks
	OR	
9.	(a)	5 marks
	(b)	10 marks

****

Instruction to set the question paper.

1. Question number 1 has 12 sub questions consisting of 3 questions from each unit. Each question carries two marks. Student has to answer any ten questions.
2. Question number 2 and 3 are from unit I.
3. Question number 4 and 5 are from unit II.
4. Question number 6 and 7 are from unit III
5. Question number 8 and 9 are from unit IV.
6. Student has to answer either question number 2 or 3, 4 or 5, 6 or 7 and 8 or 9.
   Note: In case student answered both the questions from the same unit in full or part, highest marks from any one choice has to be considered.

Question paper pattern for skill enhancement course, SEC

Third Semester B.Sc. Degree Examination, December 2021
(CBCS Scheme-2020-21: Regular)
PHYSICS
PHYSEC T32: Skill Enhancement Course

Time: 2 hours Max. Marks: 40

1.		**Answer any 5 sub question**	**5 x 2 = 10**
	i.		
	ii.		
	iii.		
	iv.		
	v.		
	vi.		
2.			
	(a)		5 marks
	(b)		10 marks
		OR	
3.	(a)		5 marks
	(b)		10 marks
4	(a)		5 marks
	(b)		10 marks
		OR	
5	(a)		5 marks
	(b)		10 marks

Instruction to set the question paper.

7. Question number 1 has 6 sub questions consisting of 3 questions from each unit. Each question carries two marks. Student has to answer any five questions.
8. Question number 2 and 3 is from unit I.
9. Question number 4 and 5 is from unit II.
10. Student has to answer either question number 2 or 3, 4 or 5.
    Note: In case student answered both the question from the same unit in full or part, highest marks from any one choice has to be considered.

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

POLITICAL SCIENCE

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

INTRODUCTION TO THE BA CHOICE BASED CREDIT SYSTEM

(SEMESTER SCHEME)

B.A Political Science Course is a Choice Based Credit System (Semester Scheme) spread over six semesters. The objective of the course is to provide a firm grounding in the subject, imbibe analytical skills and to develop a realistic and pragmatic perspective on the local, national, regional and international issues that figure in the syllabus.

The syllabus has been updated by offering many new and innovative papers keeping in view the changing times and the societal needs. The titles and detailed contents of the papers are mentioned below. All the Papers in the syllabus are provided with an extensive Reading list.

The goals and objectives of the B.A Political Science Course are as follows:

- To impart quality education to those seeking admission to the B.A Political Science course.

- To equip the students to prepare themselves for careers in teaching and research, the Union and State Civil Services, and the non-governmental sector.

- To increase awareness among students on local, national and international issues, and strengthen their analytical skills and capabilities.

- To train students to be good citizens and understand the framework of Indian constitution.

BA CHOICE BASED CREDIT SYSTEM (SEMESTER SCHEME)

SYLLABUS, POLITICAL SCIENCE w.e.f 2020-2021

Political Science BA Optional Syllabus - Course structure

SL.No.	Semester	Papers	Th. Marks
1.	1st semester	Paper-I: Introduction to Political Theory	80 Marks
2.	2nd semester	Paper-II: Western Political Thought	80 Marks
3.	3rd semester	Paper-III: Indian Political Thought	80 Marks
		Political Reporting (*Skill Enhancement Courses (SEC)*	50 Marks
4.	4th semester	Paper-IV: International Relations and Organizations	80 Marks
		Dimension of Politics (*Skill Enhancement Courses (SEC)*	50 Marks
5.	5th semester PAPER 5.1 PAPER 5.2	Paper-V (compulsory) Public Administration	80 Marks
		Paper-V (A) Optional- Public Policy Making in India Or	80 Marks

		Paper-V (B) Optional E-Governance	
	5th semester	Governance in India (*Skill Enhancement Courses (SEC)*	50 Marks
6.	6th semester PAPER 6.1 PAPER 6.2	Paper-VI (compulsory) Indian Government and Politics	80 Marks
		Paper-VI (A) Optional- Local Government in India Or Paper-VI (B) Optional Foreign Policy of India	80 Marks
	6th semester	A Course on Research Methodology (*Skill Enhancement Courses (SEC)*	50 Marks

QUESTION PAPER PATTERN

BA CHOICE BASED CREDIT SYSTEM (SEMESTER SCHEME)

W.e.f 2020-2021

Total Marks: 80 **Time: 3 hours**

NOTE: Read Instructions carefully. All parts are compulsory except for their internal options.

PART – A

Instructions: Answer any **Four** from the following in 100 words each. All questions carry equal marks. **4x5 = 20 marks**

1)

2)

3)

4)

5)

6)

PART – B

Instructions: Answer any **Three** from the following in 300 words each. All questions carry equal marks. **3x10 = 30 marks**

1)

2)

3)

4)

5)

PART – C

Instructions: Answer any **Two** from the following in 500 words each. All questions carry equal marks. **2x15 = 30 marks**

1)

2)

3)

4)

COURSE PATTERN, SCHEME OF EXAMINATION AND CREDITS BA (Political Science) CHOICE BASED CREDIT SYSTEM

(SEMESTER SCHEME) 2020-21

I, II, III, IV, V, VI SEMESTERS (CBCS) course structure

Subject	Papers	Instruction hrs/week	Duration of Exam (hrs)	Marks			Credits
				IA	Exam	Total	
Paper-1 Semester-I	Introduction to Political Theory	1x5	1x3	1x20	1x80	1x100	1x3=3
Paper-2 Semester-II	Western Political Thought	1x5	1x3	1x20	1x80	1x100	1x3=3
Paper-3 Semester-III	Indian Political Thought	1x5	1x3	1x20	1x80	1x100	1x3=3
	A Course on Reading Writing Skills (*Skill Enhancement Course (SEC)*	1X2	1x2	1x10	1x40	1x50	1x2=2
Paper-4 Semester-IV	International Relations and Organization	1x5	1x3	1x20	1x80	1x100	1x3=3
	Dimension of Politics (*Skill Enhancement Course (SEC)*	1X2	1x2	1x10	1x40	1x50	1x2=2
Paper – 5 V SEMESTER	Public Administration(Comp)	1x5	1x3	1x20	1x80	1x100	1x4=4
optional Paper - 5.1 Paper - 5.2	Public Policy Making in India OR E-Governance	1x5	1x3	1x20	1x80	1x100	1x4=4
	Governance in India (*Skill Enhancement Course (SEC)*	1X2	1x2	1x10	1x40	1x50	1x2=2
Paper - 6 VI SEMESTER	Indian Government and Politics(Comp)	1x5	1x3	1x20	1x80	1x100	1x4=4

optional **Paper - 6.1** **Paper - 6.2**	Local Government in India OR Foreign Policy of India	1x5	1x3	1x20	1x80	1x100	1x4=4
	A Course on Research Methodology (*Skill Enhancement Course (SEC)*	1X2	1x2	1x10	1x40	1x50	1x2=2

BREAK UP OF INTERNAL ASSESSMENT MARKS

Tests	10 marks (2 test each test 5 Marks)
Assignment & Seminar	05 marks
TOTAL	20 MARKS

Declaration of Results

a) Minimum for a pass in each paper shall be 40% of the total 100 marks including both the IA and the semester end examination. However a candidate should obtain at-least 40% marks in the semester end examination which will be for 80 marks. There are no minimum marks for the Internal Assessment. However after adding the IA marks and the semester end examination marks, the candidates should score a minimum of 40% of the maximum marks per paper. Candidate shall secure a minimum of 50 percent in aggregate in all the papers of a programme in each semester to successfully complete the programme.

b) The improvement of the performance is permitted as per the rules and regulations of the University.

Marks and Grade points

Sl. No	Percentage of Marks	GPA/CGPA	Grade
1	75 and above	7.50 to 10.00	A
2	60 and above but less than 75	6.00 to 07.49	B
3	50 and above but less than 60	5.00 to 05.99	C
4	40 and above but less than 50	4.00 to 4.99	D
5	Less than 40.00%	Less than 4.00	F

Grading

The Grade Point Average (GPA) shall be given to each candidate based on his/her performance during the semester which includes both the IA and the semester end examination. The GPA of each semester should be carried to next semester as Cumulative Grade Point Average CGPA.

Grade Points (Format)

$$\text{Semester GPA} = \frac{\text{Total Credit Points in all papers}}{\text{Credit hours}}$$

$$\text{Cumulative Grade Point Average} = \frac{\text{(GPA of all Semesters)}}{\text{Credits of All Semesters}}$$

Political Science BA Optional Syllabus - Course structure

Semester	Papers	Th. Marks
1st semester	**Paper-I: Introduction to Political Theory**	80 Marks
2nd semester	**Paper-II: Western Political Thought**	80 Marks
3rd semester	**Paper-III: Indian Political Thought**	80 Marks
3rd semester	**Political Reporting (*Skill Enhancement Courses (SEC)***	50 Marks
4th semester	**Paper-IV: International Relations and Organizations**	80 Marks
4th semester	**Dimension of Politics (*Skill Enhancement Courses (SEC)***	50 Marks
5th semester	**Paper-V (compulsory) Public Administration**	80 Marks
	Paper-V (A) Optional- Public Policy Making in India Or Paper-V (B) Optional E-Governance	80 Marks
5th semester	**Governance in India (*Skill Enhancement Courses (SEC)***	50 Marks
6th semester	**Paper-VI (compulsory) Indian Government and Politics**	80 Marks
	Paper-VI (A) Optional- Local Government in India Or Paper-VI (B) Optional Foreign Policy of India	80 Marks
6th semester	**A Course on Research Methodology (*Skill Enhancement Courses (SEC)***	50 Marks

Political Science Optional

B.A. Semester – I

Paper-I: Introduction to Political Theory

80 Marks 05 hrs per week

Course Rationale:

This is an introductory paper trying to expose students to some basic ideas and concepts in Political Science. Effort has been made to orient students to the methodological andideological traditions in political science.

Unit I – **Political Theory:**
Meaning, Nature, Scope and Importance.

Unit II - **Approaches to the Study of Political Theory**:
Normative, Historical andEmpirical.

Unit III – **Nomenclature and differences:**
Political Theory, Political Philosophy, Political Ideology.

Unit IV - **Political Traditions**:
Liberalism, Socialism, Marxism, Democracy.

Unit V- **Concepts:**
Power, Authority, Liberty, Justice, Rights and Duties.

Books Reference

1. S.Ramaswamy Political Theory: Ideas and Concepts, Macmillan Publications,New Delhi, 2002.
2. O.P.Gauba An introduction to political theory, Macmillan India Pvt. Ltd.,Delhi, Chennai, Mumbai, 2004.
3. A.C.Kapur Principles of Political Science, S. Chand and Co., New Delhi,1977.
4. A.AppaduraiSubstance of Politics, Oxford University Press, London, 1986.
5. E.Baker Principles of Social and Political Theory, Oxford University Press, London, 1976.
6. S.P.Verma Modern Political Theory, Vikas Publications, New Delhi, 1983.
7. David Held Political Theory today, Stanford University Press, Stanford,California, 1991.
8. G H Sabine History of Political Theory, Oxford and IBH, New Delhi, 1973
9. Roger Tatwell,Anthony WrightContemporary Political Ideologies, Rawat Publications, Jaipurand New Delhi, 2003.
10. Steven J Hood Political Development and Democratic Theory (RethinkingComparative Politics), Prentice Hall of India, New Delhi, 2004.
11. Robert E Goodie A New Handbook of Political Science, Oxford University Press,London, 1998.
12. Mac Donald Western Political Theory 19 & 20 Century, HBJ Publications,New York, 1968.
13. James G. KellarThe Politics of Nationalism and Ethnicity, St. Martins Press,New York, 1991.
14. Bhargava, R. and Acharya, A. (eds.) Political Theory: An Introduction.New Delhi: Pearson Longman, 2008
15. McKinnon, C. (ed.) Issues in Political Theory, New York: Oxford University Press, 2008
16. Andrew Heywood – Political Ideologies: An Introduction
17. ಎಂ.ಎಸ್. ಪಾಟೀಲ ರಾಜಕೀಯ ಸಿದ್ಧಾಂತ, ಪ್ರತಿಭಾ ಪ್ರಕಾಶನ, ತಾಳಿಕೋಟಿ.
18. ಎನ್.ಬಿ. ಪಾಟೀಲ & ಜಿ.ಬಿ. ಶೀಲವಂತರ ರಾಜಕೀಯ ಸಿದ್ಧಾಂತ ಅರುಣ ಪ್ರಕಾಶನ ವಿಜಾಪೂರ.
19. ಕೆ.ಜಿ. ಸುರೇಶ್, ರಾಜಕೀಯ ಸಿದ್ಧಾಂತ.

Political Science Optional
B.A. Semester – II

Paper-II: Western Political Thought

80 Marks 05 hrs per week

Course Rationale:
This paper studies the classical tradition in political theory from Plato to Marx with the view to understand how the great Masters explained and analyzed political events and problems of their time and prescribed solutions. The legacy of the thinkers is explained with the view to establishing the continuity and change within the Western political tradition.

Unit I – **History of Western Political Thought**,
Plato and Aristotle - Philosophy and Writings.

Unit II – **Medieval Political Thought**:
Features, Thomas Aquinas and Machiavelli – Philosophy and writings.

Unit III – **Modern Western Political Thought**:Features, Social Contractualists,Thomas Hobbes and Locke – Philosophy and writings.

Unit IV – **Modern Western Political Thought: Utilitarian's and Idealist's** – Jeremy Bentham and Thomas Hill Green.

Unit V – **Modern Western Political Thought: Scientific Theory** – Features, Karl Marx and Lenin.

Books Reference

1. C L Wayper Political Thought, B.I. Publications, Bombay, 1983.
2. Mukherjee &Ramaswamy History of Political Thought Plato to Marx, Prentice-Hall India, New Delhi, 1999.
3. E Barker The Political thought of Plato Aristotle, Dover Publications, New York, 1959.
4. W Ebenstein Great Political Thinkers, Oxford and IBH, New Delhi, 1969.
5. D R Bhandari History of European Political Philosophy, Bangalore Printing & Publishing Co. Ltd., Bangalore, 1990.
6. Urmila Sharma & S.K. Sharma- Western Political Thought
7. J P Suda -Modern political thought
8. O P Gauba -Western Political Thought
9. Boucher, D. and Kelly, P. (eds.) Political Thinkers: From Socrates to the Present, New York: Oxford University Press
10. ಎಂ.ಎಸ್. ಪಾಟೀಲ ರಾಜಕೀಯ ಸಿದ್ಧಾಂತ, ಪ್ರತಿಭಾ ಪ್ರಕಾಶನ, ತಾಳಿಕೋಟಿ.
11. ಎನ್.ಬಿ. ಪಾಟೀಲ ಪಾಶ್ಚಿಮಾತ್ಯ ರಾಜಕೀಯಚಿಂತನೆಅರುಣ ಪ್ರಕಾಶನ ವಿಜಾಪೂರ.
12. ಗುರುರಾಜ ನಾ. ಜೋಶಿ ಪಾಶ್ಚಿಮಾತ್ಯ ರಾಜಕೀಯಚಿಂತನೆರೂಪಾ ಪ್ರಕಾಶನಧಾರವಾಡ 2010
13. ಎಂ.ಪಿ. ಭುವನೇಶ್ವರ ಪ್ರಸಾದ್ – ಆಧುನಿಕ ರಾಜಕೀಯ ಚಿಂತಕರು
14. ಕೆ.ಜೆ.ಸುರೇಶ್ – ಪಾಶ್ಚಿಮಾತ್ಯ ರಾಜಕೀಯ ಚಿಂತಕರು

Political Science Optional

B.A. Semester – III

Paper-III: Indian Political Thought
80 Marks 05 hrs per week

Course Rationale:
This paper attempts to introduce students to the entire gamut of political thinking in India from the beginning to the present. It focuses on key thinkers from ancient to modern times tounderstand their seminal contribution to the evolution of political theorizing in India. Itemphasizes on the distinctive contribution of Indian thinkers to political theorizing and therelative autonomy of Indian political thought.

Unit I – **Ancient Indian Political Thought** – Nature, Features, Significance, Scope and Relevance.

Unit II - **Political Thought of Kautilya and Manu**: Their writings and Political Philosophy.

Unit III – **Medieval Indian Political Thought**: Features, Theories of Kingship, Governance and Role of Religion in Society.

Unit IV – **Modern Indian Political Thought**: Features, Colonialism and Indian National Movement.

Unit V – Modern Indian Political Thought: Leadership, Role and Philosophy of M K Gandhi, Dr. B.R. Ambedkar.

Books Reference

1. N. Jayapalan, Indian Political Thinkers: Modern Indian Political Thought
2. Urmila Sharma& S.K. Sharma, Indian Political Thought
3. V.P. Varma-Modern Indian political Thought
4. K. S. Padhy- Indian Political Thought
5. V.P. Varma- Ancient and Medieval Indian political Thought
6. Sherwin Haroon Khan, Muslim Political Thought & Administration, Delhi, 1991
7. Mehta, V. R. *Foundations of Indian Political Thought.* New Delhi: Manohar Publishers, 1992
8. Panthan, Th. & Deutsch, K. L. (eds.) *Political Thought in Modern India.* New Delhi 1986
9. Singh, M.P. and Roy, H. (eds.) *Indian Political Thought:Themes and Thinkers,* New Delhi: Pearson. 2001
10. ಎಂ.ಎಸ್. ಪಾಟೀಲ ಭಾರತೀಯರಾಜಕೀಯಚಿಂತನೆ, ಪ್ರತಿಭಾ ಪ್ರಕಾಶನ, ತಾಳಿಕೋಟಿ
11. ಎನ್.ಬಿ. ಪಾಟೀಲ ಭಾರತೀಯರಾಜಕೀಯಚಿಂತನೆಅರುಣ ಪ್ರಕಾಶನ ವಿಜಾಪೂರ.
12. ಎಂ.ಪಿ. ಭುವನೇಶ್ವರ ಪ್ರಸಾದ್ – ಪ್ರಾಚೀನ ಭಾರತದ ರಾಜಕೀಯ ತಾತ್ವಿಕರು
13. ಕೆ.ಜೆ.ಸುರೇಶ್ – ಪಾಶ್ಚಿಮಾತ್ಯ ರಾಜಕೀಯ ಚಿಂತಕರು,

THIRD SEMESTER

Paper: Political Reporting

(Skill Enhancement Courses (SEC)

50 MARKS 0 2 HOURS

Rationale

This course teaches students the fundamentals of covering political world (between 37 to 60 percent of political news is covered by the media on an average per day) in reporting it professionally. This course is designed to provide a broad overview of the nuances of interpreting the political phenomena starting from the grassroots to the parliament. The idea is to help students develop insights and enlarge their job opportunity by enhancing their skills in a professional manner by giving deeper knowledge of the reporting activity in the age of mass media and new social media. This will thus help students to develop skills of reporting and make it as a career by adding value to their master's degree.

Unit I- Nature of Politics

1. Meaning and Nature of State, Defining Politics and Measuring Political Developments
2. Defining the role of Mass Media-Press, Radio and TV in India

Unit II- Political Action and Media

1. Defining Political News, Nature of Political News and Forms of Political News
2. Defining the limits of Political Reporting and working of Lobbies and Pressure Groups

Unit III- Assessment and Political Reporting

1. Central, State, Local Governments and Judiciary - an assessment of their working
2. Writing Reports - background information, criteria for evaluation (parameters), drawing conclusions

Unit IV- Journalistic Communication

1. Journalistic writing skills, Dead Lines and Interview Reporting
2. Writing Blogs, Punctuation, and Grammar needs.

References

1. Sharon Hartin Iorio, *Qualitative Research In Journalism*, London: Erlbaum Associates, 2004
2. Davis Merritt, *Public Journalism And Public Life, Erlbaum Associates*, London: 2004
3. Raymond Kuhn, *Political Journalism New Challenges*, New York: New Practices, Rutledge, 2003
4. Gail Sedorkin And Judy MCgregor, *Interviewing – A Guide For Journalist And Writers*, Crow's Nest, N.S.W.: Allen and Unwin, 2002
5. R.T.Jangam, (etal) *Political Analysis*, New Delhi: Oxford and IBH Publication, 1997
6. J.C.Johari, *Comparative Politics*, New Delhi : Sterling Publishers, 1982
7. Robert A. Dahl, *Modern Political Analysis*, New Delhi: Prentice Hall of India, 1981

Political Science Optional

B.A. Semester – IV

Paper-IV: International Relations and Organization

80 Marks 05 hrs per week

Course Rationale:

This paper deals with concepts and dimensions of international relations and The Concept of theories of power and different aspects ofbalance of power are included. The student is expected to study International Politics andIndia's Foreign Policy from a pro-active and futuristic perspective.

Unit I **- Introduction:** Meaning, Nature, Scope and Importance, Growth of International Relations as a discipline.

Unit II – **Theoretical Approaches to the study of International Relations**- Traditional, Normative and Behavioural Approaches

Unit III – Concepts in International Relations: National and State, Empire, Non-State Actors, Foreign Policy, Political System, Nationalism, Globalization, Security,Power,Diplomacy International law, Sovereignty

Unit IV - **Contemporary Challenges to International Relations**: International terrorism, Climate Change, Human Rights and Migration

Unit V – **International and Regional Organizations**:UN, WTO, BRICKS, EU ASEAN, African Union and Arab League.

Books Reference

1. Palmer and Perkins International Relations The World Community in Transition, Scientific Book Agency, Latest Edition.
2. Michael G. Roskin I.R. the New World of International Relations, Prentice Hall of India, New Delhi, 2002
3. Peter Calvocoressi World Politics 1945-2000, Pearson Publications, New Delhi, 2004
4. Vinay Kumar Malhotra International Relations, Anmol Publications, New Delhi, 2004
5. Joshua S. Goldstein International Relations, pearson Publications, New Delhi, 2004
6. Vandana V. Theory of International Politics, Vikas Publishing House, New Delhi, 1996
7. Prakash Chandra International Politics, Vikas Publishing House Pvt, Ltd. New Delhi, 2001.
8. Robert Jackson and George Sorensen Introduction of International Relations, Oxford University, Press, 1999
9. H.J. Morgenthau, Politics among Nations
10. Mahendar Kumar, Theoretical Aspects of International Politics
11. JC Johari, International Relations and politics
12. Urmila Sharma, International Relations
13. ಎನ್.ಬಿ ಪಾಟೀಲ, ಅಂತರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು ಹಾಗೂ ಸಂಘಟನೆಗಳು, ಅರುಣ ಪ್ರಕಾಶನ, ವಿಜಯಪುರ
14. ಡಾ.ಎಂ.ಪಿ. ಭುವನೇಶ್ವರ ಪ್ರಸಾದ್– ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳ ಪರಿಕಲ್ಪನೆಗಳು
15. ಕೆ.ಜೆ.ಸುರೇಶ – ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು, ಚೇತನ ಬುಕ್ ಹೌಸ್
16. ಹಾಲಪ್ಪ – ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು, ವಿದ್ಯಾನಿಧಿ ಪ್ರಕಾಶನ

FOURTH SEMESTER

Paper: Dimension of Political
(*Skill Enhancement Courses (SEC)*

50 MARKS 02 HOURS

Course Rationale: Has been framed with greater interest for effusing students with synoptically knowledge of the political science. It familiarizes students with essential components of Political Science, but also enhances the development of human personality. In nutshell it provides multiples avenues for students across the variegated disciplines.

Unit I – Essentials of democracy

National Integration, Political Parties, Pressure Groups and Interest groups.

Unit II - Debates on Current Issues

Debate on Reservation, Fundamental Duties, Media & Politics

Unit III – New Paradigms

Right to Information Act, Anti Defection Act, Public Interest Litigation

Unit IV – Socio- Political Thoughts

Dr.B.R. Ambedkar: Chairman of Drafting Committee,

Mahatma Gandhi – Non Violence,

Basavanna – Social Justice.

BOOKS REFERENCES

1. Granvile Austin, Working of a Democratic Constitution: The India Experience, New: Oxford University Press, 2000.
2. M. V. Pylee, our Constitutions, Government and Politics, New Delhi: Universal 2002.
3. Ajay Mehra, ed (2013) Party System in India: Emerging Trajectories, Lancer, New Delhi.
4. B.L. Shankar and Valerian Rodrigues (2011) The Indian Parliament, Oxford University Press, New Delhi.
5. Sandeep Shastri, K.C.Suri and Yogendra Yadav (2009) Electoral Politics in Indian States: Elections and Beyond, Oxford University Press, New Delhi
6. Rajeev Bhargava (2009) Politics and Ethics of the Indian Constitution, Oxford University Press
7. Mohanty, Biswaranjan. (2009). Constitution, Government and Politics in India – Evolution and Present Structure, New Century Publications, New Delhi.

Political Science Optional

B.A. –V Semester
Paper V – (Compulsory)
Public Administration

80 Marks 05 hrs per week

Course Rationale:
This paper is an introductory course in Public Administration. The effort is to introduce students to the basic principles, key administrative thinkers, and the main instrument-bureaucracy/civil service – of administration.

Unit I – **Introduction**: Public Administration: Evolution, Meaning, Scope and Significance, Difference between Public and Private Administration.

Unit II – **Approaches to the study of Public Administration:** Traditional – Historical and Analytical, Normative – Legal and Philosophical.

Unit III – **Administrative Thinkers and Theories:** Classical Theory- Henry Fayol, Scientific Management Theory- F.W.Taylor, Human Relations Theory-Elton Mayo

Unit IV – **Concepts in Public Administration and New Public Administration**: Hierarchy, Unity of Command, Span of Control, Authority, Centralization, Decentralization and Delegation, Line and Staff, features of New Public Administration.

Unit V – Basic Statistics–:Units of Analysis and Variables, Basic Idea of Central Tendency, Mean, Mode, Median, Basic Ideas of Distribution, Sampling Concepts, Hypothesis testing.

Books Reference

1. M.P.Sharma B.L. Sadana Public Administration in Theory and Practice, KitabMahal, New Delhi,2005.
2. Raymond W.Cox Susan J.BuckBettty N. Morgan Public Administration in Theoryand Practice, Pearoson Publication, New Delhi, 2004
3. Nicholas Henry Public Administration and Public Affairs, Prentice Hall of India,New Delhi, 2003
4. R.K. Arora C.V.Raghavulu values in Administration, Associated Publishing House,New Delhi, 1989
5. VishnooBhagwanVidyaBhushan Public Administration, S.Chand& Co., NewDelhi, 2005
6. Avasthi&Maheshwari Public Administration, Lakshmi NarainAgarwal, Agra,2004
7. Mohit Bhattacharya Public Administration : Structure, Process and Behaviour,World Press, Calcutta, 1987
8. Ram Avtar Sharma Public Administration Today, Shree Publishers & Distributers,New Delhi, 2005
9. Fadia&Fadia Public Administration Theries and Concepts, SahityaBhavanPublications, Agra, 2005
10. A.R. Tyagi Public Administration, Principles & Practice, Atma Ram &Sons, Delhi, 2001
11. C.P. Bhambhri Public Administration, Jai PrakashNath& co., Meerut, 2000
12. Rumki Basu-Public Administration concepts and Theories
13. G.H. Frederickson: New Public Administration.
14. ಎನ್.ಬಿ. ಪಾಟೀಲ ಸಾರ್ವಜನಿಕ ಆಡಳಿತ ಅರುಣ ಪ್ರಕಾಶನ ವಿಜಯಪುರ
15. ಕೆ.ಜೆ.ಸುರೇಶ್ – ಸಾರ್ವಜನಿಕ ಆಡಳಿತ,
16. ಮಾಲಿಮದ್ದಣ್ಣ – ಸಾರ್ವಜನಿಕ ಆಡಳಿತ,
17. ಹೆಚ್. ಟಿ. ರಾಮಕೃಷ್ಣ – ಸಾರ್ವಜನಿಕ ಆಡಳಿತ, ಲಲಿತ ಪ್ರಕಾಶನ
18. ಹಾಲಪ್ಪ– ಸಾರ್ವಜನಿಕ ಆಡಳಿತ.
19. Kothari, Research Methodology: Methods and Techniques, New Delhi, new Age International, 2014.
20. Gupta. S.C and Kapoor V.K. Fundamentals of Mathematical Statistics, Sultan Chand and sons, (2001)
21. Freund J.E., Mathematical Statistics, Prentice hall, (2001)

Political Science Optional

B.A. –V Semester
Paper V (A)– (Optional)

Public Policy Making in India
80 Marks 05 hrs per week

Course Rationale: This paper introduces to the students of 21st century development of policy technology – in its rational, institutional and behavioural dimensions.

Unit I - **Public Policy**: Introduction, Concepts of Public and Policy -Nature, Scope and Significance of Public Policy, Definition .

Unit II - **Evolution of Public Policy Studies, Types of Public Policy**: Regulatory, Welfare, Distributive and Re-distributive, Models of Public Policy Systems Model, Herbert Simon.

Unit III - **Policy Making in India**: Constitutional framework for Policy Making, Institutional Factors: Legislature, Executive, Judiciary, Planning Commission and National Development Council.

Unit IV – **Factors that influence Policy making:** Public Opinion, Political parties, Pressure groups, Media and Professional Bodies -External Influencing Agencies- UN, ILO, World Bank and IMF.

Unit V – **PolicyMonitoring and Evaluation**:Approaches and Techniques, Policy Monitoring and Evaluation, Types of Evaluation

Books Reference

1. Dror, Y. Public Policy Making Reexamined. Oxford: Transaction Publication, 1983
2. Dye, T.R. Understanding Public Policy. New Jersey: Prentice Hall 1975
3. R.V. Vaidyanatha Ayyar, Public Policy Making In India, Pearson.
4. Noorjahan Bava, Development Policies and Administration in India.
5. A.Celestine: How to Read the Union Budget PRS, Centre for Policy Research, New Delhi, Availableat http://www.prsindia.org/ parliamenttrack/ primers/ how-to-read-the-union-budget-1023/
6. B. Chakrabarty and P. Chand: Public Policy: Concepts, Theory and Practice
7. Zoya Hasan (ed.),Politics and the State in India, New Delhi
8. Kaushiki Sanyal and Rajesh Chakrabarti, Public policy in India 2017
9. Kuldeep Mathur, Public Policy and Politics in India: How Institutions Matter, 2013
10. Prabir Kumar De, Public Policy and Systems

Political Science Optional

B.A. –V Semester
Paper V (B) – (Optional)

E-Governance
80 Marks 05 hrs per week

Course Rationale: This paper gives introduction to good governance and how can be achieved by information system and E- governance.

Unit I - **E-Governance**Meaning, Nature, Definition and Scope and Significance of E-Governance, Domains of E-Governance, Current Status of Indian E-Governance efforts.

Unit II - **E-governance at Union and State level**, National E-Governance Plan –Central Mission Mode Projects, State Mission Mode Projects.

Unit III - **Major E-governance Projects**: Gyandoot, Warna, E-choupal, E-Bhoomi, E-Governance in Nioda City, Raj Nidhi, Raksha Bhoomi.

Unit IV – **Governance**- Meaning and significance, Citizen Centric Governance, -E-Government Services, Public Private Partnership and Expansion of E-Governance.

Unit V - **E-Governance -Transparency and Accountability at Grassroots Level. Issues and Challenges of E-governance:**Digital Divide, Capacity Building, Cyber Security.

Books Reference

1. M.J.Moon, The Evolution of Electronic Government Among Municipalities: Rhetoric or Reality, American Society For Public Administration, Public Administration Review, Vol 62, Issue 4, July – August 2002
2. Vasu Deva, E-Governance In India : A Reality, Commonwealth Publishers,2005
3. Pankaj Sharma, E-Governance: The New Age Governance, APH Publishers,2004
4. Pippa Norris, Digital Divide: Civic Engagement, Information Poverty and the Internet in Democratic Societies, Cambridge: Cambridge University Press, 2001
5. Anil Dutta Mishra, Good Governance a Conceptual Analysis, in AlkaDhameja, 2010
6. Zhiyuan Fang, E-Government in Digital Era: Concept, Practice, and Development, International Journal of The Computer, The Internet and Management, Vol. 10, No.2, 2002
7. MahapatraR, and Perumal S. 2006. "e-governance in India : a strategic framework", International Journal for Infonomics: Special issue on measuring e-business for development. January
8. Signore O., Chesi F. and Pallotti M. 2005, "E-Government: challenges and opportunities", CMG Italy - XIX annual conference, June7-9.
9. Henrik Paul Bang, (Ed.) Governance as Social and Political Communication, Manchester University Press, New York 2003
10. Malick M H and Murthy A V K, the Challenge of E-Governance, The Indian Journal of Public Administration, Vol.47, IIPA, New Delhi, 2001

FIFTH SEMESTER

Paper: Governance in India
(*Skill Enhancement Courses (SEC)*

50 MARKS 0 2 HOURS

Course Rationale: The paper-Governance in India throws light upon the over-all political fabric of India. Focuses it's also on the nation's socio-communal structure, ingredients of good governance and important national commissions. By doing so this paper acquaints the students to essential strands of socio-political principles and mechanisms of good governance thus making is students being equipped with necessary potentials required for leading a secured life.

Unit -1 Constitution of India

Characteristics of Indian Constitution, Preamble, Secularism and Communalism.

Unit-2 Democracy

Issues and Challenges to Democracy, Electoral System, NOTA

Unit-3 Governance

E-Governance, Good Governance, Local Self Government

Unit-4 Commissions in India

National Commission for SC & ST, National Commission Women. NITI Ayoga

Books Reference

1. Bridge Kishore Sharama, Introduction to the Constitution of India, New Delhi, Prentice Hall of India : 2004
2. B.R. Ambedkar. The Untouchables: who were they and why they become untouchables? Bombay: Govt. of Maharashtra, 1990.
3. Granvile Austin, Working of a Democratic Constitution: The Indian Experience, New: Oxford University Press, 2000.
4. M.V. Pylee, our Constitutions, Government and Politics, New Delhi:Universal 2002.
5. Rajendra Sigh, Social Movement, Old and New A Post Modernist Critique, Delhi: Sage Publication, 2001.
6. S.C. Kashayap, Reforing the Constitution, New Delhi: UBSPD, 1992.
7. Ranani Kothari, Politics in India, New Delhi : Orient Longman, 2003.
8. B.L. Padi, Contemporary India Politics, Agra: Sahitya Bhavan, 1988.
9. C.P. Bhambri, Indian Politics since Independence New Delhi: Shipra, 1994.
10. J.C. Johari, Indian Politics, Jalundar: Vishal, 1990.
11. A.C. Kapoor, Indian Political System, New Delhi: S. Chand and Company, 1982.
12. P.B. Desai, Basaveshwara and His Time: Goa University Press Published in 1960.
13. Shri. Kumarswamijii, Belong of Humanity, 1994.
14. Prof. Jadi Musalayya, Basaveshwar Philosophy 1140 AD to 1196, New Delhi Current Publication, 1994.
15. R. H. Chandangoudar, Twelth century revaluation for equality and social justices, Bangolre Jagjyoti Trust, 2008.

Political Science Optional

B.A. –VI Semester
Paper VI – (Compulsory)

Indian Government and Politics

80 Marks 05 hrs per week

Course Rationale: This paper introduces students to the Constitution of India in its structural and functional aspect. It is expected that the knowledge acquired in the introductory political theory paper shall be juxtaposed in understanding the nitty-gritty of this paper.

Unit I – **Introduction:** Constituent Assembly: Structure and Composition, Framing of the Indian Constitution- MajorDebates,Preamble, Citizenship and salientfeatures.

Unit II - Fundamental Rights,Directive Principles of State Policy, FundamentalDuties, Basic Structure of the Constitution and Ninth Schedule and its significance.

Unit III - **Union Government**: Executive: President, Election, Powers and Functions, Prime Minister and Council of Ministers Power and functions, RajyaSabha – its need and significance.

Unit IV – **State Governments**: Composition, Powers and Functions, Vidhana Parishat – Its need and Significance, Judiciary: High Court and Supreme Court composition powers and functions.

Unit V – **Party System**: Features and Trends, National and Regional Parties, Coalition Politics, Election Commission and NITI Ayog.

Books Reference

1. M.V.Pylee, An Introduction to the Constitution of India, New Delhi, Vikas, 2005.
2. Subhash C. Kashyap, Our Constitution: An Introduction to India's Constitution and constitutional Law, New Delhi, National Book Trust, 2000.
3. Durga Das Basu, Introduction to the Constitution of India, New Delhi, Prentice Hall of India, 2001.
4. D.C.Gupta, Indian Government and Politics, VIII Edition, New Delhi, Vikas, 1994.
5. J.C.Johari, Indian Government and Politics, Delhi, Sterling Publishers, 2004.
6. V.D.Mahajan, Constitutional Development and National Movement in India, New Delhi, S. Chand and Co., latest edition.
7. Constituent Assembly Debates, New Delhi, LokSabha Secretariat, 1989.
8. Granville Austin, Working of a Democratic Constitution : The Indian Experience, New Delhi, Oxford University Press, 1999.
9. A.P.Avasthi, Indian Government and Politics, Agra, Naveen Agarwal, 2004.
10. Dr .B.L.Fadia. Indian Government and Politics.
11. Dr. Prakash Chandra, Indian Government and Politics
12. ಎನ್.ಬಿ. ಪಾಟೀಲ ಭಾರತ ಸರ್ಕಾರ ಮತ್ತು ರಾಜಕೀಯ ಅರುಣ ಪ್ರಕಾಶನ ವಿಜಯಪುರ
13. ಡಾ. ಎಚ್. ಎಂ. ರಾಜಶೇಖರ ಭಾರತದ ಸಂವಿಧಾನ ಮತ್ತು ರಾಜಕೀಯ, ಕಿರಣ್ ಪ್ರಕಾಶನ, ಮೈಸೂರು
14. ಪ್ರೊ. ಎನ್. ಹಾಲಪ್ಪ , ರಾಜ್ಯಶಾಸ್ತ್ರ, ಚೇತನ ಬುಕ್ ಹೌಸ್, ಮೈಸೂರು
15. ಕೆ.ಜೆ.ಸುರೇಶ್–ಭಾರತ ಸಂವಿಧಾನ

Political Science Optional

B.A. –VI Semester
Paper VI(A)– (Optional)

Local Government in India
80 Marks 05 hrs per week

Course Rationale: *This paper structures multi-dimensional and inter-sectorial knowledge-base for strengthening Local Government Institutions in India. The curriculum enables the youth to analyses the dynamics of decentralized governance and to equip them with the requisite skills towards realizing local economic development and social justice.*

Unit I – **Empowerment**: Definition, Meaning, Significance, Empowering People and Local Governments: Need, Relevance, Decentralization and Powerto the People.

Unit II – **Approaches to the study of Local Governments**: Constitutional – Legal Political, Administrative, Economic and Developmental Approach.

Unit III–**Committees to strengthen Panchayats in India:** BalawantaRai Mehta Committtee, Ashok Mehta Committee, Singvi Committee – theirrecommendations

Unit IV - **Constitutional and Political Empowerment**: Division of Powers between Centre and States, Urban and Rural Local Governments: 73rdand 74th Amendment,

Unit V - **Administrative Empowerment**: Decision Making Powers of the LocalGovernments, Karnataka Panchayat Raj Act 1993 and Karnataka municipal Corporation Act 1976 - Structure, functions and Powers

Books Reference

1. Maheshwari S R, Local Government in India, New Delhi, Orient Longman, New Delhi, latest edition.
2. R.P Joshi & G.S. Narwani, Panchayati Raj in India: Emerging Trends, Rawat Publications, Jaipur, 2002
3. A History of Local Self Government in Rural Karnataka- -Dr. M. Umapathi
4. M.A. Muttalib and MA Khan, Theory of Local Government, Sterling Publishers Pvt. Ltd. New Delhi.
5. Mohit Bhattacharya, Management of Urban Government in India, Uppal Book Store, New Delhi
6. Mishra, S.N., Dreams and Realities: Expectation from Panchayati Raj, New Delhi, IIPA, 1996
7. 73rd and 74th Constitutional Amendment Act, 1992
8. S.N. Jha and P.C. Mathur, Decentralization and Local Politics, New Delhi, Sage, 1999
9. S.R. Maheswari, Local Government in India, Lakshmi Narain Agarwal, Agra, 2003
10. S. Singh and P. Sharma: Decentralization: Institutions and Politics in Rural India
11. Anil Jana ed.: Decentralizing Rural Governance and Development
12. ಕರ್ನಾಟಕ ಪಂಚಾಯತ್ ರಾಜ್ ಅಧಿನಿಯಮ 1992

Political Science Optional

B.A. –VI Semester
Paper VI(B)– (Optional)

Foreign Policy of India

80 Marks 05 hrs per week

Course Rationale

The course seeks to acquaint students with the illusion of India's foreign policy since independence. Particular emphasis is laid on the foundation aspects of foreign policy as alsoshedding light on the mechanics and dynamics of foreign policy making and implementation.Emerging aspects embodying India's interface with global and regional players and multilateralorganizations and forums shall also be dealt with.

Unit I – **Foundations**: Nehru's Legacy Non-Alignment and Panchasheel and Post-Nehruvian Innovations in India's Foreign Policy: Transformation of International Politics Post Cold War: Implications for India

Unit II - **Dealing with Major Powers**: India's Foreign Policy towards -USA and European Union, Russia, China

Unit III - **Changing Contours of Indian Foreign Policy**: Look South and South-East, Neighbour First Policy under Modi, Foreign Policy during the Coalition Era

Unit IV - **Economic Dimensions of Foreign Policy**: Globalisation, International Trade, Multinational Corporation and Regional Cooperation

Unit V - **India's Approach to Major Global Issues and Institutions:** UN, WTO, Disarmament and Arms Race, Cross Border Terrorism and Human Rights, Global Environment.

Books Reference

1. The Clash of Civilizations and the Remaking of World Order (Paperback)
   bySamuel P. Huntington
2. India's Foreign Policy: Retrospect and Prospect Paperback– by SumitGanguly
3. Global Politics Andrew Heywood
4. Foreign Policy of IndiaProf. N.Jayapalan
5. Foreign Policy of IndiaDr. SubhashShukla
6. Foreign Policy of india and Asia-PacificK.Raja Reddy
7. New Horizons of Indian Foreign PolicyDr. M.R.Biju
8. Engaging the World Indian Foreign Policy since 1947SumitGanguly
9. The Making of India's Foreign Policy, New Delhi: Allied Publishers, J. Bandhopadhyaya,
10. S. Mehrotra, (1990) 'Indo-Soviet Economic Relations: Geopolitical and Ideological Factors', in India and the Soviet Union: Trade and Technology Transfer, Cambridge University Press: Cambridge
11. ಡಾ.ಪಿ.ಎಸ್.ಜಯರಾಮು – ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು
12. ಹೆಚ್ . ಟಿ. ರಾಮಕೃಷ್ಣ– ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು
13. ಪ್ರೊ. ಎನ್. ಹಾಲಪ್ಪ , ಅಂತರರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು, ಚೇತನ ಬುಕ್ ಹೌಸ್, ಮೈಸೂರು
14. ಎನ್. ಬಿ ಪಾಟೀಲ, ಅಂತರಾಷ್ಟ್ರೀಯ ಸಂಬಂಧಗಳು ಹಾಗೂ ಸಂಘಟನೆಗಳು, ಅರುಣ ಪ್ರಕಾಶನ, ವಿಜಯಪುರ

SIXTH SEMESTER

Paper: A Course on Research Methodology
(*Skill Enhancement Courses (SEC)*

50 MARKS 0 2 HOURS

Course rationale: This course will help the students to understand the significance of research in political science and social sciences and equips them with deeper understanding about the problems of our society. (***For last unit topic shall be chosen by the students under the guidance of political science teacher within the broad area of the discipline. NOTE: Project work is for 50 marks.***

Unit-1 Introduction

Meaning, nature and significance of social sciences research. Need for research: its history and utility.

Unit-2 Methods in political science research:

Types of Research: Fundamental and applied. Traditional and Scientific methods Research design: types, formulation of problem, literature survey, hypotheses and its types.

Unit-3 Introduction to Field Study:

Types of Data collection and Techniques. Survey Research. Use of information technology and its application.

Unit-4 Data Analysis and Report Writing:

Processing of data, computer application for data analysis. Structure and content of research report and Project Work.

Books Reference

1. Varma, Basic research in Political science, Rawat publication, Jaipur, 1989.
2. Jayapalan. N., Research Methods in Political Science, New delhi, Atlanta, 2000.
3. Simon J, Basic research in methods in social sciences, New York, Random House, 1969.
4. Kothari & others, Research Methodology: methods and techniques, New Age international, New Delhi, 2014.
5. Johnson & Joslin, Political science research methods, Prentice hall of India, New Delhi, 1989.
6. Greenstein and Polsby, Strategies of Inquiry, Handbook of political science, California Addison, Wesley, 1975.

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF ARTS

SOCIOLOGY

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

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Phone Nos.: 0831- 2565228

Board of Studies in Sociology (UG)

Date: 20-12-2019

Sl. No.	Name of the Members	Designation
1	**Prof. Chandrika K.B.** Dept. Of Sociology Rani Channamma University Belagavi	Chairperson
2	**Dr. D.M. Jawalakar** Govt. First Grade College, Khanapur, Belagavi	Member
3	**Dr. M. M. Hiremath** BVVS Basaveshvar Arts College, Bagalkot	Member

B.A. Sociology (Optional)
CBCS Syllabus (UG)
(W.e.f. 2020-21 Onwards)

Semester	Code/ Course	Paper No	Title of the Paper	Teaching Hours/ Week	Credits	Marks			Duration of Sem. End Exam
						IA	Sem. End Exam	Total	
I	ASOCDSC 1	1	Principles of Sociology	5	3	20	80	100	3
II	BSOCDSC 2	2	Study of Indian Society	5	3	20	80	100	3
III	CSOCDSC 3	3.1	Indian Social Thinkers	5	3	20	80	100	3
	CSOCSEC 1	3.2	Personality Development and Communication Skills	2	2	10	40	50	2
IV	DSOCDSC 4	4.1	Study of Western Sociological Thought	5	3	20	80	100	3
	DSOCSEC 2	4.2	Health and Sanitation	2	2	10	40	50	2
V	ESOCDSC 5	5.1	Rural Development in India	4	4	20	80	100	3
	ESOCDSE 1	5.2(a) 5.2(b)	Urban Society in India or Social Demography	4	4	20	80	100	3
	ESOCSEC 3	5.3	Sociology of Tourism	2	2	10	40	50	2
VI	FSOCDSC 6	6.1	Basics of Social Research	4	4	20	80	100	3
	FSOCDSE 2	6.2(a) 6.2(b)	Current Social Problems or Social Welfare in India	4	4	20	80	100	3
	FSOCSEC 4	6.3	Society, Mass Media and Communication	2	2	10	40	50	2
				44	36				

DSC: **Discipline Specific Course**

DSE: **Discipline Specific Elective**

SEC: **Skill Enhancement Course**

I - SEMESTER – DSC - 1

B. A. SOCIOLOGY

PRINCIPLES OF SOCIOLOGY

Objectives:

It is an Introductory Paper, which intends to:

→ Make the students to acquaint with the Basic Concepts and Principles of Sociology.

→ To understand the Dynamics of Sociology

→ To study the Human Interactions and Relationships

Unit-I Introduction

1. Meaning, Definitions and Characteristics of Sociology
2. Origin and Development of Society
3. Significance of Sociology
4. Sociological Perspectives

Unit-II Basic Concepts of Sociology

1. Society and Community: Meaning and Characteristics, Elements of Community
2. Social Groups- Definition, Features and Types
3. Status and Role- Meaning and Types
4. Social Institution and Association: Meaning, Characteristics and Types

Unit-III Social Interaction and Process

1. Meaning and Characteristics of Social Interaction
2. Types of Social Process: Cooperation, Competition, Conflict, Accommodation, Assimilation, Isolation
3. Difference Between Competition and Conflict
4. The Role of Social Process in Social Life

Unit-IV Culture and Socialization

1. Culture - Meaning, Characteristics and Elements of Culture.
2. Cultural Process: Cultural Lag, Cultural Shock, Cultural Diffusion, Ethnocentric Culture, Xenophobia.
3. Socialization- Meaning, Characteristics, Stages of Socialization, Agencies of Socialization and Its Importance
4. Social Stratification and Mobility: Meaning, Characteristics, Forms of Stratification - Caste and Class

Unit-V Social Change and Social Control

1. Social Change: Meaning, Definitions and Characteristics
2. Factors of Social Change: Geographical, Biological, Cultural and Technological Factors
3. Social Control: Meaning, Definitions and Characteristics
4. Agencies of Social Control (Formal and Informal)

References:

- Abraham Francis (2006): Contemporary Sociology, Oxford University Press, New Delhi.
- Bottomore, T.B.: Sociology: A Guide to Problems and Literature. George Allen and Unwin, Bombay, India.
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- Mulugund, I. C. (2008): Readings in General Sociology, Shrusti Prakashan, Dharwad.

II - SEMESTER – DSC - 2
B. A. SOCIOLOGY
STUDY OF INDIAN SOCIETY

Objectives:

→ To understand the Diversities and Unity in Indian Society.
→ To know the major segments in Society, the Traditions, Continuities and Changes taking place in Indian Society.
→ The Sociological Perspective on Indian society, presented in this paper will enable students to gain a better understanding of their own situation and region.

Unit- I Introduction

1. Features of Indian Society
2. Philosophical Base: Dharma, Purusharthas and Samskaras
3. Unity in Diversity
4. Factors of Continuity and Change

Unit- II Marriage, Family and Kinship

1. Meaning and Definitions of Marriage Family and Kinship
2. Marriage among Hindus, Muslims, and Christians
3. Types of Family: Joint Family, Nuclear family, Matriarchal and Patriarchal Family
4. Recent Trends in Marriage and Family, Legislations

Unit III Caste System in India

1. Meaning and Features of Caste System
2. Functions of Caste System
3. Role of Caste in Modern India- Merits and Demerits
4. Changing Aspects of Caste, Causes for Changes

Unit IV Other Backward Classes and Minority

1. Meaning and Characteristics of OBC's
2. Backward Class Movements
3. Constitutional Measures and Welfare Programmers of OBC's
4. Religious Minority: Muslims and Christians

Unit V Scheduled Castes and Scheduled Tribes

1. Meaning and Nature of SC's and ST's
2. Problems and Challenges of SC's
3. Problems and Challenges of ST's
4. Constitutional Measures and Welfare Programmes for SC's and ST's

References:

- Ahuja ram (1993): Indian Social System, Rawat pub. Jaipur.
- Ambedkhar B.R Annihilation of Caste
- Berreman, G.D. (1979): Caste and Other Inequalities: Essays
- Beteille Andre (1992): Backward Classes in Contemporary India, New Delhi: OUP
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- Kothari Rajani (Ed.) (1973) : Caste in Indian Politics
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- Mulugund, I C. (2008): Readings in Indian Sociology.Shrusti Prakashan, Dharwad.
- Satya Murthy T.V. (1996): Religion, Caste, Gender, and Culture Contemporary India. New Delhi: OUP

III - SEMESTER – DSC - 3
B. A. SOCIOLOGY
INDIAN SOCIAL THINKERS

Objectives:

→ To understand the nature of Development of Social Thought.

→ To get awareness about the Indian Thinkers, Sociologists and their Contributions.

→ To make the students to understand the Social Ethics of Indian Social Thought.

Unit- I Introduction

1. Meaning Definitions and Nature of Social Thought
2. Development of Social Thought
3. Importance of Social Thought

Unit- IV Pioneers of Social Thought

1. Rajaram Mohan Roy: Views of Brahma Samaj and Social Reforms
2. Education as a Means of Social Development
3. Jyotibha Pule: Welfare of Weaker Sections
4. Swami Vivekananda: Upliftment of Youths and Poor

Unit- II Mohandas Karamchand Gandhi

1. Gandhi's Concept of Sarvodaya

2. Gandhi's views on Man Kind

3. Truth and Non-Violence

4. Gandhian concept of Rural Reconstruction, Khadi and Village Industries

Unit- III Dr. Babasaheb Ambedkar

1. Brief sketch of Dr. B. R. Ambedkar
2. Views on Caste in India
3. Untouchability and Eradication
4. Ambedkar's Contribution to the Constitution of India

Unit- V Pioneers of Indian Sociology

1. G. S. Ghurey: Caste and Race, Rural - Urban Community

2. A. R. Desai: Marxist Approach to Sociology

3. M. N. Srinivas: Sanskritization, Dominant Caste

4. Irawati Karve: Kinship Organization

References:

- Ambedkar B.R.: Complete Works of Dr. B.R. Ambedkar Vol. I, Govt. of Maharashtra, Bombay. (Also Available in Kannada)
- Barnes, H.E. (1959): Introduction to the History of Sociology. Chicago: The University of Chicago Press.Bombay.
- Dhananjay Keer – Life and Mission of Dr. B.R.Ambedkar
- Gandhi M.K.: Auto Biography. Navjeevan Prakashan, Ahmadabad.
- Ghurye G.S. 1945. *Culture and Society*. Bombay:
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- Mulgund, I.C. (2008): Readings in General Sociology, Shrusti Prakashan Dharwad
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- Srinivas, M. N.: Social Change in India. Popular Prakashan, Bombay.
- Srinivas, M.N. 1980. *India: Social Structure*, New Delhi: Hindustan Publishing, University Press, Popular Prakashan

III - SEMESTER – SEC - 1
B. A. SOCIOLOGY
PERSONALITY DEVELOPMENT AND COMMUNICATION SKILLS

Objectives:

→ To help the students in building Interpersonal and Communication Skills
→ To enhance team building and time management Skills
→ Make use of techniques for Self-Awareness and Self-Development.

Unit-I Personality Development

1. Meaning and Definition of Personality
2. Determinants of Personality: Physical, Intellectual Emotional, Social and Cultural, Heredity and Environment
3. Importance of Personality Development

Unit-II Skills of Personality Development

1. "Self"- Identity and Socialization, Emotional Intelligence Importance and its Application in Social Relationships.
2. Leadership: Meaning, Characteristics, Types and Leadership skills
3. Career Planning in Personality Development

Unit- III Communication Skills

1. Process of Communication: Verbal, Non-Verbal, Public Speaking.
2. Importance of Effective Communication, Barriers of Communication, Overcoming the Barriers
3. Facing Personal Interview, Group Discussion, Public Speaking, Presentation Skills

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References:

- Banerjee Meera & Mohan Krishna Developing Communication Skills: Macmillan Publications,
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- Bhattacharyya D. K. (2009). Organizational Behavior, Oxford University Press, UK.
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- ಡಾ. ವಿಷ್ಣು ಎಂ. ಶಿಂದೆ ವ್ಯಕ್ತಿತ್ವ ಮತ್ತು ಶಿಕ್ಷಣ. ಪಬ್ಲಿಷ್ ವಲ್ಡ್,ಆನಂದ ಗುಜರಾತ

IV - SEMESTER - DSC- 4
B. A. SOCIOLOGY
STUDY OF WESTERN SOCIOLOGICAL THOUGHT

Objectives:

→ To understand the basics of Western Sociological Theories
→ To aware about Western Sociological Thinkers and their Contributions
→ To make the students to understand the Methodology of Social Sciences

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Unit- I Auguste Comte

1. Positivism and Hierarchy of Sciences
2. Law of Three Stages of Human Development
3. Social Statistics and Social Dynamics
4. Religion of Humanity

Unit- II Emile Durkheim

1. Social Facts
2. Division of Labor in Society
3. Rules of Sociological Methods
4. Theory of Suicide

Unit- III Herbert Spencer

1. Theory of Social Evolution
2. Organic Analogy
3. Types of Society
4. Social Darwinism

Unit- IV Max Weber

1. Bureaucracy and Authority
2. Protestant Ethics and Spirit of Capitalism
3. Social Action and Types
4. Ideal Types

Unit- V Other Thinkers

1. Karl Marx : Class Struggle
2. Lewis A. Coser: Conflicts and Social Change
3. **C**harles H. Cooley : The Theory of looking Glass Self
4. George H. Mead: Self and Significant Others

References:

- Aron Raymond (1982): Main Currents in Sociological Thought. (2 Volumes), Harmondsworth, Middlesex, Penguin Books.
- Barnes, H. E. (1959): Introduction to the History of Sociology. Chicago: The University of Chicago Press.
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IV - SEMESTER – SEC - 2
B. A. SOCIOLOGY
HEALTH AND SANITATION

Objectives:

→ To Sensitize the students to Health related Issues and Sanitation
→ To make the students aware of Sanitation conditions in India
→ To understand the Social aspects of Health and Sanitation

Unit-I Health as a Social System

1. Concept of Health and Wellbeing
2. Scope and Significance of Sociology of Health and Sanitation
3. Socio-Cultural Determinants of Health

Unit-II Health and Diseases

1. Diseases: Chronic and Other Diseases
2. Health Policies In India
3. Measures to Control Diseases

Unit-III Health and Sanitation in India

1. Social Construction of Hygiene and Sanitation
2. Problems and Challenges of Environmental Sanitation in India
3. Sulabh Sanitation Movement, Sanitation Policies and Programmes, Swach Bharat Mission (Abhiyan)

Activity: Field Visits and Activities related to Environmental Issues

Reference:

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V - SEMESTER – DSC - 5
B. A. SOCIOLOGY
RURAL DEVELOPMENT IN INDIA

Objectives:

→ To understand the nature of Rural Development in India.
→ To understand the changing nature of Land Tenure System and Land Reforms.
→ To Understand the Panchayat Raj System in India
→ To understand the nature of Rural Development Programmes.

Unit- I Introduction

1. Meaning, Nature and Significance of Rural Development
2. Objectives of Rural Development in India
3. Land Tenure, Agrarian Relations Land Reforms, and Social Changes
4. Green Revolution , White Revolution , Red Revolution, Yellow Revolution, Blue Revolution: Objectives and Achievements

Unit- II Rural Community

1. Characteristics of Rural Community
2. Rural Problems: Rural Poverty, Rural Unemployment,
3. Rural Health and Sanitation
4. Indebtedness: Causes and Effects, Farmer's Suicide

Unit- III Peasant Movements in India

1. Meaning and Nature of Peasant Movements
2. Bardoli Satyagraha, Telangana Movement and Naxabari Movement
3. Peasant Movements in Karnataka: Mahadayi, Naragunda Bandaya, Kaveri
4. Impact of Peasant Movement.

Unit- IV Panchayat Raj System and Rural Development

1. Constitution of Gram Panchayat,Taluk Panachayat, and Zilla Panchayat
2. Panchayat Raj: Objectives, Functions and Its Duties
3. People's Participation and Women's Participation in Governance
4. Role of Personnel in Rural Development-Village Level Worker(VLW) Adyaksh and Upadyekshas, Grama Sevak(GS), Block Level Development Officers(BDO) and District Level Officers(CEO)

Unit- V Rural Development Programmes

1. Agencies of Rural Development – Govt. and NGO's
2. Programs of Rural Development in India MGNREGA, Drinking Water and Sanitation, Swacha Bharat, SHG'S, Akshara Dasoha, National Rural Livelihood Mission
3. LPG, GATT, WTO
4. Impact of Globalization on Rural Society

Activity: Field Exposure to Villages and Conducting Surveys

References:

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- Sharma K.L. (2007): Indian Social Structure and Change, Rawat Publications, New Delhi.

V - SEMESTER – DSE - 1
B. A. SOCIOLOGY
URBAN SOCIETY IN INDIA

Objectives:

→ To Provide Sociological understanding of Urban Society in India.

→ To understand about the Evolution of Cities and Urban Communities.

→ To make the students aware of Urban Problems in India

→ To understand Urban Planning and Urban Development

Unit- I Introduction to Urban Society in India

1. Meaning and Characteristics of Urban Society
2. Significance of Study of Urban Life
3. Types of Cities
4. Urban Development in Ancient and Medieval Periods

Unit- II Cities in India

1. History and Growth of Cities in India
2. Factors for the Growth of Cites
3. Metropolitan and Mega Cities: Meaning and Characteristics
4. Growth of Metropolitan and Mega Cities in India

Unit- III Urbanization in Modern India

1. Meaning and Nature of Urbanization
2. Rural-Urban Migration
3. Factors Responsible for Rapid Urbanization
4. Consequences of Over Urbanization and its Measures

Unit- IV Urban Problems in India

1. Problems of Housing, Slums and Sanitation
2. Urban Crimes, Drug Addiction
3. Water Supply and Transportation
4. Environmental Problems: Pollution and its Effects, Remedies for Environmental Problems

Unit- V Urban Planning and Development

1. Urban Development and Its Objectives
2. Urban Policy and Urban Development Programmes
3. Urban Governance and its Role
4. Challenges of Urban Management

- **Activity**: Field Visits to study the structure, Planning and Development of various Cities

References:

- Alfred D 'Souza (1978): The Indian City: Poverty, Ecology and Urban Development, Manohar, New Delhi.
- Bose. Ashis (1901- 2001): Urbanization in India
- Raj Bala (1986): Trends in Urbanization, Rawat Publications, Jaipur
- Ram Nath Sharma: Urban Sociology. Rajhans Publications Meerut.
- Rao M S A (1974): Urban Sociology 1n India. Orient Longman, New Delhi.
- Siddarth, K. & Mukherjee (2005): Cities, Urbanization and Urban System, Kisalaya Publications, Delhi.
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- Rajendra K. Sharma, 1997. *Urban Sociology*, New Delhi: Atlantic Publishers.
- Shrivastava, A.K. 1989. *Urbanization: Concept & Growth*, New Delhi: H.K. Publishers.

V - SEMESTER – DSE - 2
B. A. SOCIOLOGY
SOCIAL DEMOGRAPHY

Objectives:

→ To understand about the Nature and Scope of Demographic Studies
→ To know about the Changing Trends of Indian Population
→ To know about the Family Welfare Programmes and Schemes in India

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Unit- I Introduction

1. Origin and Development of Demography
2. Meaning, Nature and Scope
3. Importance of Social Demography

Unit- II Components of Population Growth

1. Fertility
2. Mortality
3. Migration

Unit- III Theories of Population Growth

1. Malthusian Theory
2. Optimum theory
3. Theory of Demographic Transition

Unit- IV Population Growth

1. Trends of World Population Growth
2. Trends and Patterns of Population Growth in India
3. Causes and Consequence of Population Growth in India

Unit- V Population Control

1. History of Family Planning Programmes
2. Family Welfare Programmes
3. Population Policy- 2000

References:

- Bhende, Asha. and Kanitkar, T. (1978/97). *Principles of Population Studies*. India: Himalaya
- Bogue, Donald J. (1969). *Principles of Demography*. New York: John Willey. Bombay.
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V - SEMESTER – SEC - 3
B. A. SOCIOLOGY
SOCIOLOGY OF TOURISM

Objectives:

→ To provide the basic understanding of Tourism and its Social Dimensions.
→ To Study the impact of Tourism on Society and Culture.
→ To Provide knowledge of Tourism, Social aspects of Tourism and its Social Dimensions
→ Understanding Tourism as a Socio-Cultural and Economic force in Social Development
→ Motivation to choose a career in Tourism Management

Unit- I Introduction

1. Tourism; Meaning and Definitions
2. Sociological Perspectives of Tourism,
3. Significance of Sociological Tourism

Unit-II Tourism Industry in India

1. Types of Tourism; Eco Tourism, Health Tourism, Religious Tourism, Educational Tourism.
2. Tourism in India- Opportunities
3. Policies of Tourism in India

Unit-III Tourism and Social Change

1. Socio-Cultural Impact of Tourism on Society
2. Tourism and Cultural Exchange
3. Development of Tourism, Sociological factor in Tourist Motivation, Motivating Locals for Tourism

Activity: Visiting Historical places and Preparing Report

References:

- Andrew Holden, 2005.*Tourism studies and the social sciences,* London: Routledge
- Apostolopoulos, y., Leivadi, S & Yiannakis, A., (eds.) 2000, *The Sociology of Tourism: Theoretical and Empirical Investigations*, London: Routledge.
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VI - SEMESTER – DSC - 6
B. A. SOCIOLOGY
BASICS OF SOCIAL RESEARCH

Objectives:

→ To understand the Importance of Social Research in Social Science
→ To know about the Research Procedure
→ Make the students to understand, Report Writing and Application of Basic Statistics
→ To understand the Application of Computers in Social Research

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Unit- I Introduction

1. Social Research : Meaning and Definition
2. Importance of Research in Social Sciences
3. Qualities of Researcher
4. Relationship between Theory and Research

Unit- II Research Procedure

1. Stages of Social Research
2. Research Design
3. Report Writing
4. Reference and Bibliography

Unit- III Data Collection

1. Primary Data: Questionnaire, Interview
2. Secondary Data
3. Qualitative and Quantitative Data

Unit- IV Use of Statistics in Social Research

1. Meaning and Definitions of Statistics
2. Classification and Tabulation,
3. Graphical Presentation of Data (Graphs and Diagrams)
4. Measures of Central Tendency : Mean, Median, Mode

Unit- V Computer Application in Social Research

1. Characteristics of Computers
2. Use of Computers in Social Research
3. Microsoft Office: Word, Excel and Power Point Presentation (PPT)
4. Need of Internet : e-Library, Websites and Web Browsers

Activity: Preparing field Survey Report Making Small Presentations.

References:

- Agarwal, Y. P. (1995). *Statistical Methods: Concepts, Applications and Computation*. Sterling Publishers, New Delhi.
- Baily Kenneth (1998): Methods of Social Research. John Wiley & Sons, New York
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VI - SEMESTER – DSE - 2
B. A. SOCIOLOGY
CURRENT SOCIAL PROBLEMS

Objectives:

→ To understand about the Nature of Social Problems.
→ To understand the Nature and Causes of Changing trends of Crimes in India.
→ To understand the Nature of Vulnerable Problems of Life.

Unit- I Introduction

1. Meaning, Definition and Nature of Social Problems
2. Causes and Consequences of Social Problems
3. Social Organization and Disorganization
4. Characteristics of Social Disorganization

Unit- II Social Disorganization Issues and Problems

1. Crime and Delinquency- Meaning, Causes and Consequences
2. Types of Crime
3. Changing Aspects of Crime and Criminals: White Collar Crime, Criminalization of Politics and Communalism
4. Measures to Control Crime

Unit- III Youths, Children and Aged

1. Youth Unrest, Youth and Drug Addiction
2. Juvenile Delinquency
3. Child Abuse and Child Labour
4. Problems of Aged

Unit- IV Corruption, Terrorism

1. Corruption: Meaning and Types
2. Causes and Consequences of Corruption
3. Terrorism: Meaning, Causes and Effects
4. Measures to Control Corruption and Terrorism

Unit- V Problems of Women and Dalits

1. Domestic Violence, Dowry
2. Rape and Sexual Abuse
3. Female Foeticide and Infanticide
4. Atrocities on Untouchables

References:

- Ahuja Ram (1998): Social Problems in India. Rawat Publication, Jaipur.
- Davis James (1970): Social Problems Enduring Major Issues and Change, New York: Free Press.
- Elliot and Merril (1950): Social Disorganization. New York: Harper and Brothers.
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VI - SEMESTER – DSE - 2
B. A. SOCIOLOGY
SOCIAL WELFARE AND SOCIAL POLICY IN INDIA

Objectives:

→ To understand the Basic Concepts in Social Welfare
→ To study the different Welfare Programmes and Policies in India
→ To understand the process of Social Change and Development through Social Welfare.

Unit -I Introduction

1. Meaning, Definition and Importance of Social Welfare
2. Concepts - Welfare State, Re-distribution, Democracy, Accountability and Transparency
3. Social Welfare Needs: Compulsory Primary Education; Full-employment; Health Care

Unit –II Welfare of Disadvantage Groups

1. Welfare of Scheduled Castes
2. Welfare of Scheduled Tribe
3. Welfare of Other Backward Classes
4. Welfare of Minorities

Unit – III Women and Child Welfare

1. National Health Policy and Programmes for Women
2. Family Welfare Programmes
3. National Policy for Children
4. Welfare Policy for Elderly

Unit –IV Youth and Labour Welfare

1. National Youth Policy
2. Youth Welfare Programmes; Youth and Sports
3. Youth Empowerment and Employability
4. Labour Welfare Programmes

Unit –V Social Welfare and Development

1. Social Welfare and Social Legislations
2. Barriers to Social Welfare in India; Civil Society
3. Agencies of Social Welfare – Role of Government and Non-government Organizations in Social Welfare
4. Central Social Welfare Board and State Social Welfare Board

References:

- Ahuja, Ram. 2001. *Social Problems in India*. Jaipur: Rawat Publications.
- Chowdhry, P.D. 1983. Social Welfare Administration. Delhi: Atma Ram Sons.
- Chaudhary D.P. (1966). *A Handbook of Social Welfare*, Delhi: Atma Ram & Sons.
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- Jayal, N. G. 2002. *Democracy and the state: Welfare, Secularism and Development in Contemporary India*. New Delhi: Oxford Univ. Press.
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- Pandya, R. 2008. *Women welfare and empowerment in India: Vision for 21st century*. New Delhi: New Century Publications.
- Patti, R.J. 2000. The Handbook of Social Welfare Management. Sage Publications.
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- *Participation*. New Delhi: Institute of Social Sciences and Concept publishing co.
- Talwar, P. P., & Goel, O. P. 1990. *Non-Governmental Organisations for Greater Involvement in Health and Family Welfare Programmes in India*. New Delhi: National Institute of Health& Family Welfare.
- Tribhuvan, Robin.D. (Ed).2000.*Studies in Tribal, Rural and Urban Development*. vol.1&2. New Delhi: DPH

VI - SEMESTER – SEC - 4
B. A. SOCIOLOGY
SOCIETY, MASS MEDIA AND COMMUNICATION

Objectives:

→ To create interest among students to acquire knowledge about Mass Media and Communication.

→ To provide a Sociological Perspective on the role of Mass Media and Communication in Indian Society.

→ To develop the Communicative Ability of the students in Speaking, Reading and Writing Skills.

→ To know the role of Communication and Mass Media in the Development of Society.

Unit – I

Introduction

1. Mass Media: Concept, Definition, Characteristics
2. News Paper, Magazines, Radio, Television and Cinema
3. Social Responsibility of Mass Media

Unit – II

Communication

1. Communication**:** Definition, Characteristics
2. Functions and Forms of Communication
3. Process of Communication, Barriers to Communication

Unit- III Mass Media, Communication and Social Change

1. Role of Mass Media in Social Change.
2. Information and Communication Technology (ICT), Computer, Internet
3. Role of ICT and Its Impact on Society

Activity: Preparing News Report of Various Functions in the College.

References:

- Graham Murdock. (1975). *The Sociology of Mass Communications and Sociological Theory.* The Australian and New Zealand Journal of Sociology, Volume 11, No. 2. Sage.
- Allan, Wells. (1979), *Mass Media and Society.* Mayfield, California.
- Denis Mcquil. (1969), *Towards a Sociology of Mass Communication*. Macmillan, London.
- Johnson, K. (2000), *Television and Social Change in Rural India*, London: Sage.
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EXAMINATION PATTERN **B. A. Sociology CBCS**	
PAPERS	**QUESTION PAPER PATTERN**
Theory Paper – **DSC and DSE** **80 Marks**	❖ Theory Paper has Three Parts. ➢ Part – A 4×5=20 ➢ Part – B 3×10=30 ➢ Part – C 2×15=30
Internal Assessment **DSC and DSE** **20 Marks**	❖ Two (2) Internal Assessment Tests ➢ 1st Test 04 Marks ➢ 2nd Test 10 Marks
	❖ Attendance- 75 % Compulsory ➢ 90% & above: 3 marks ➢ 80% - 89% : 2 marks ➢ 75% - 79% : 1 marks
	❖ Assignments - One (1) ➢ 3 Marks
	❖ Surprise Tests, Seminars; Group Discussions, etc.
Theory Paper –SEC **40 Marks**	❖ Theory Paper has Two Parts. ➢ Part – A 4×5=20 ➢ Part – B 2×10=20
Internal Assessment **SEC** **10 Marks**	One Test for 10 Marks
Duration of the Theory Paper – DSC and DSE	❖ Three (03) Hours
Duration of the Theory Paper – SEC	❖ Two (02) Hours

Question Paper Pattern for DSC and DSE

B. A. Examination Month / Year

(Scheme CBCS)

SOCIOLOGY

Title of the Paper

Time: 3 Hours **Max. Marks: 80**

Instruction: 1) Answer All the Section

Part-A

Answer Any Four of the Following **4×5=20**

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Part-B

Answer Any Three of the Following **3×10=30**

7. _____
8. _____
9. _____
10. _____
11. _____

Part-C

Answer Any Two of the Following **2×15=30**

12. _____
13. _____
14. _____
15. _____

Question Paper Pattern FOR SEC

B. A. Examination Month / Year

(Scheme CBCS)

SOCIOLOGY

Title of the Paper

Time: 2 Hours **Max. Marks: 40**

Instruction: 1) Answer All Section

Part-A

Answer Any Four of the Following **4×5=20**

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Part-B

Answer Any Two of the Following **2×10=20**

7. _____
8. _____
9. _____

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF SCIENCE

STATISTICS

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

CHOICE BASED CREDIT SYSTEM [CBCS]
B.Sc. Program with Statistics Optional Subject

B.Sc.: Statistics as one of the optional subject revised syllabus under CBCS (w.e.f. 2020-21 and onwards)								
Sem	Part	Paper Code	Title of Paper	Hours/ Week	Marks			Subject Credits
					IA	Exam	Total	
I	Part – 1 DSC	STSDSCT 1.1	Descriptive Statistics	4	20	80	100	3
		STSDSCP 1.1	Practicals-I	3	10	40	50	1
		Total : Hours / Credits		7			150	4
II	Part – 1 DSC	STSDSCT 2.1	Bivariate Data Analysis and Standard Theoretic Distributions	4	20	80	100	3
		STSDSCP 2.1	Practicals-II	3	10	40	50	1
		Total : Hours / Credits		7			150	4

B.Sc.: Statistics as one of the optional subject revised syllabus under CBCS (w.e.f. 2021-22 and onwards)								
Sem	Part	Paper Code	Title of Paper	Hours/ Week	Marks			Subject Credits
					IA	Exam	Total	
III	Part – 1 DSC	STSDSCT3.1	Sampling Distributions	4	20	80	100	3
		STSDSCP 3.1	Practicals-III	3	10	40	50	1
	Part – 2 SEC	STSSECT 3.2	Statistical Methods - I	2	10	40	50	2
		Total : Hours / Credits		9			200	6
IV	Part – 1 DSC	STSDSCT 4.1	Statistical Inference	4	20	80	100	3
		STSDSCP 4.1	Practicals-IV	3	10	40	50	1
	Part – 2 SEC	STSSECT 4.2	Statistical Methods - II	2	10	40	50	2
		Total : Hours / Credits		9			200	6

CHOICE BASED CREDIT SYSTEM [CBCS]

B.Sc.: Statistics as one of the optional subject revised syllabus under CBCS (w.e.f. 2022-23 and onwards)								
Sem	Part	Paper Code	Title of Paper	Hours/ Week	Marks			Subject Credits
					IA	Exam	Total	
V	Part – 1 DSE	STSDSET 5.1	Inference and Statistical Quality Control	4	20	80	100	3
		STSDSEP 5.1	Practicals-V	3	10	40	50	1
		STSDSET 5.2A (Elective-I)	(i) Sampling Theory and Demography	4	20	80	100	3
		STSDSEP 5.2A (Elective-I)	Practicals	3	10	40	50	1
		STSDSET5.2B (Elective-II)	(i) Econometrics	4	20	80	100	3
		STSDSEP 5.2B (Elective-II)	Practicals	3	10	40	50	1
	Part – 2 SEC	STSSECT 5.3	Demography	2	10	40	50	2
		Total : Hours / Credits		16			350	10
Note: Students have to choose either Elective-I or Elective-II								
VI	Part – 1 DSE	STSDSET 6.1	Design of Experiments	4	20	80	100	3
		STSDSEP 6.1	Practicals	3	10	40	50	1
		STSDSET 6.2A (Elective-III)	(i) Operations Research-I	4	20	80	100	3
		STSDSEP 6.2A (Elective-III)	Practicals	3	10	40	50	1
		STSDSET6.2B (Elective-IV)	(ii) Operations Research-II	4	20	80	100	3
		STSDSEP 6.2B (Elective-IV)	Practicals	3	10	40	50	1
	Part – 2 SEC	STSSECT 6.3	Operation Research Techniques	2	10	40	50	2
		Total : Hours / Credits		17			350	10
Note: Students have to choose either Elective-III or Elective-IV								

B.Sc. Program with Statistics Optional Subject

(T: Theory, P: Practical, CC/EA: Co-curricular/Extension Activities
AECC: Ability Enhancement Compulsory Course, DSC: Discipline Specific Course
DSE: Discipline Specific Elective, SEC: Skill Enhancement Course)

Note: Duration of examinations is 03 Hrs for 80 Marks theory and 02 hrs for 40 marks theory. For practical's duration of examination is 03 Hrs.

Paper Code: STSDSCT1.1	**Paper Title:** Descriptive Statistics
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT I

Introduction: Definition and scope of Statistics, concept of population and sample. Data - qualitative and quantitative, variables and attributes. Measurement scales - nominal, ordinal, interval and ratio. Presentation - classification& tabulation, frequency distribution. Diagrams - simple, multiple, subdivided and percentage. Graphs – histogram, frequency polygon, frequency curve, ogives. **12Hours**

UNIT II

Measures of Central tendency: Purpose of measures of location, definition of A.M, G.M, H.M & their properties (with proof), median and mode. Partitioned values - quartiles, deciles and percentiles. **10Hours**

UNIT III

Measures of Dispersion: Absolute and relative measures - range, quartile deviation, mean deviation, standard deviation and coefficient of variation. Moments,skewness and kurtosis. **10Hours**

UNIT IV

Probability: Introduction, random experiments, sample space, events and algebra of events. Definitions of probability – classical, statistical, and axiomatic.Conditional probability, laws of addition and multiplication, independent events, theorem of total probability, Bayes' theorem and its applications. **14Hours**

UNIT V

Random variables& Mathematical Expectation: discrete and continuous random variables, p.m.f., p.d.f. and c.d.f.,illustrations and properties of random variables, univariate transformations with illustrations. Two dimensional random variables: discrete and continuous type, joint, marginal and conditional p.m.f, p.d.f., and c.d.f., independence of variables, bivariate transformations with illustrations. **14Hours**

Books for Reference:

1. Goon A.M., Gupta M.K. and Dasgupta B. (2002): Fundamentals of Statistics, Vol. I & II, 8th Edn. The World Press, Kolkata.
2. Miller, Irwin and Miller, Marylees (2006): John E. Freund's Mathematical Statistics with Applications, (7th Edn.), Pearson Education, Asia.
3. Mood, A.M. Graybill, F.A. and Boes, D.C. (2007): Introduction to the Theory of Statistics, 3rd Edn., (Reprint), Tata McGraw-Hill Pub. Co. Ltd.
4. Gupta S.C and Kapoor V.K.: Fundamentals of Mathematical Statistics- Sultan Chand & Sons publications.
5. Hogg .R.V.andCraig.A.T(1978):Introduction to MathematicalStatistics.Amerind Publishing Company.

Paper Code: STSDSCP1.1	**Paper Title:** PRACTICALS
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

List of Practicals

1. Construction of frequency distribution and graphical representation.
2. Measures of central tendency-I Computation of AM, GM and HM
3. Measures of central tendency-II Computation of positional averages and partition values.
4. Measures of dispersion – Range, QD, MD, SD and CV.
5. Moments, skewness and kurtosis for a frequency distribution.
6. Examples on Compound probability, total probability and Baye's theorem.
7. Random variables.

Paper Code: STSDSCT2.1	**Paper Title:** Bivariate Data Analysis and Standard Theoretic Distributions
Teaching Hours: 4 Hrs/Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT I

Mathematical Expectation of single and bivariate random variables, its properties.Addition and multiplication theorem of expectation.Moments and Cumulants.MGF and CGF - their properties, conditional expectation, variance, covariance, mean and variance of linear combination of random variables.

12Hours

UNIT II

Bivariate data: Definition, scatter diagram, simple, Karl Pearson's correlation coefficient, Spearman's Rank correlation coefficient, Properties, concept of errors, principles of least squares, simple linear regression and its properties, fitting of regression lines, coefficient of determination. **14Hours**

UNIT III

Multivariate (Trivariate) Data Analysis: Multiple linear regression, multiple and partial correlation coefficients. Residuals and their properties. **10Hours**

UNIT IV

Discrete probability Distributions:Bernoulli, Binomial, Poisson, Negative Binomial, Geometric and Uniform, distributions - definition, mean, variance and m.g.f., c.g.f and moments upto fourth order only. Hyper geometric distribution: definition, mean and variance. Recurrence relation for probabilities and moments of Binomial and Poisson distributions.Approximations of binomial, negative binomial and hyper geometric distributions. **14Hours**

UNIT V

Continuous Probability Distributions: Uniform, Gamma, Beta, Exponential, Normal and Cauchy distributions - Mean, variance, moments, MGF and Properties. **10Hours**

Books for reference:

1. Hogg, R.V.,Tanis, E.A. and Rao J.M. (2009): Probability and Statistical Inference, Seventh Ed, Pearson Education, New Delhi.
2. Miller, Irwin and Miller, Marylees (2006): John E. Freund's Mathematical Statistics with Applications, (7th Edn.), Pearson Education, Asia.
3. Myer, P.L. (1970): Introductory Probability and Statistical Applications, Oxford & IBH Publishing, New Delhi.
4. Gupta S.C and Kapoor V.K.: Fundamentals of Mathematical Statistics- Sultan Chand & Sons

B.Sc II Semester- Statistics

Paper Code: STSDSCP2.1	**Paper Title:** PRACTICALS
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

List of Practicals

1. Bivariate distributions: Computation of marginal and conditional distributions.
2. Correlation: Computation of Karl Pearson's correlation coefficient, Rank correlation coefficient.
3. Fitting of regression equations.
4. Partial and multiple correlation.
5. Fitting of Poisson distributions.
6. Fitting of Binomial distributions.
7. Fitting of normal distribution.

Paper Code: STSDSCT3.1	**Paper Title:** Sampling Distributions
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT I

Limit Theorems: Chebyshev's inequality its role in approximating probabilities. Convergence of binomial, Poisson and Gamma distributions to Normal distribution.Statement of central theorems and its applications. **10Hours**

UNIT II

Order Statistics: Introduction, distribution of the rth order statistic, smallest and largest order statistics. Joint distribution of rth and sth order statistics, distribution of sample median and sample range. **08Hours**

UNIT III

Definitions of random sample, parameter and statistic, sampling distribution of a statistic, sampling distribution of sample mean, standard errors of sample mean, sample variance and sample proportion. Null and alternative hypotheses, level of significance, Type I and Type II errors, their probabilities and critical region. Large sample tests,for testing single proportion, difference of two proportions, single mean, difference of two means, standard deviation and difference of standard deviations. **14Hours**

UNIT IV

Exact sampling distribution-I: Definition and derivation of p.d.f. of $\chi 2$ with n degrees of freedom (d.f.) using m.g.f., nature of p.d.f. curve for different degrees of freedom, mean, variance, m.g.f., cumulant generating function, mode, additive property and limiting form of $\chi 2$ distribution. **14Hours**

UNIT V

Exact sampling distributions-II: Student's and *t*-distribution. Derivation of its p.d.f.,nature of probability curve with different degrees of freedom, mean, variance, moments and limiting form of t distribution. Snedecore's F-distribution: Derivation of p.d.f., nature of p.d.f. curve with different degrees of freedom, mean, variance and mode. Distribution of 1/F(n1,n2). Relationship between t, F and $\chi 2$ distributions. Test of significance and confidence Intervals based on t and F distributions. 12**Hours**

Books for Reference:

1. Hogg, R.V.,Tanis, E.A. and Rao J.M. (2009): Probability and Statistical Inference, Seventh Ed, Pearson Education, New Delhi.
2. Miller, Irwin and Miller, Marylees (2006): John E. Freund's Mathematical Statistics with Applications, (7th Edn.), Pearson Education, Asia.
3. Myer, P.L. (1970): Introductory Probability and Statistical Applications, Oxford & IBH Publishing, New Delhi.
4. Gupta S.C and Kapoor V.K.: Fundamentals of Mathematical Statistics- Sultan Chand & Sons

B.Sc III Semester- Statistics

Paper Code: STSDSCP3.1	**Paper Title:** PRACTICALS
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

List of Practicals

1. Test for mean, equality of means when variance is known and unknown under normality (small and large samples)

2. Test for single proportion and difference of proportions.

3. Test for variance and equality of two variances under normality.

4. Application of Chi-square distribution-I

5. Application of Chi-square distribution-II

6. Application of t - distribution

7. Application of F– distribution

Paper Code: STSSEC3.2	**Paper Title:** Statistical Methods - I
Teaching Hours: 2 Hrs / Week	**Marks:** Theory-40+IA-10
Teaching Hours: 30Hrs	**Credits: 01**

Statistical Techniques provide scientific approaches to develop the domain of human knowledge largely through empirical studies. The course aims at enabling students understand basic concepts and aspects related to research, data collection, analyses and interpretation.

UNIT I

Introduction: Meaning, objection and motivation in research, types of research, research approach, significance of research. Research problems: definition, selection and necessity of research problems. **08Hours**

UNIT II

Survey Methodology and Data Collection, inference and error in surveys, the target populations, sampling frames and coverage error, methods of data collection, non-response, questions and answers in surveys. **08Hours**

UNIT III

Processing, Data Analysis and Interpretation: Review of various techniques for data analysis covered in core statistics papers, techniques of interpretation, precaution in interpretation. Develop a questionnaire,collect survey data pertaining to a research problem (such as gender discriminations in private v/s government sector, unemployment rates, removal of subsidy, impact on service class v/s unorganized sectors), interpret the results and draw inferences. **14Hours**

Books for Reference :

1. Kothari, C.R. (2009): Research Methodology: Methods and Techniques, 2nd Revised Edition reprint, New Age International Publishers.
2. Kumar, R (2011): Research Methodology: A Step - by - Step Guide for Beginners, SAGE publications.

Paper Code: STSDSCT4.1	**Paper Title:** Statistical Inference
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT I

Estimation: Concepts of estimation, unbiasedness, sufficiency, consistency and efficiency. Factorization theorem. Complete statistic, Minimum variance unbiased estimator (MVUE),Cramer-Rao inequality and MVB estimators(statement and applications).

12 Hours

UNIT II

Methods of Estimation: Maximum likelihood and Method of moments standard examples. Illustration for non uniqueness of MLE's. Properties of MLE and MME. Examples on MLE **12 Hours**

UNIT III

Interval Estimation: Meaning of confidence interval, confidence coefficient, confidence interval for mean difference between means for small and large samples. Confidence interval for proportion and difference between two proportions for large samples.

12 Hours

UNIT IV

Testing of statistical hypothesis: Null and alternative hypotheses (simple and composite) Type-I and Type-II errors, critical region, level of significance, size and power, best critical region, most powerful test, uniformly most powerful test, Neyman Pearson Lemma (statement and applications to construct most powerful test). Likelihood ratio test, properties of likelihood ratio tests (without proof). **12 Hours**

UNIT V

Sequential Testing: Need for sequential tests. Wald's SPRT, Graphical procedure of SPRT.Determination of stopping bounds.Construction of SPRT for Binomial, Poisson, Normal distributions.Approximate expressions for OC and ASN functions for Binomial, Poisson and Normal distributions. **12 Hours**

Books for Reference:

1. Goon A.M., Gupta M.K.: Das Gupta.B. (2005), Fundamentals of Statistics, Vol.I, World Press, Calcutta.
2. Rohatgi V. K. and Saleh, A.K. Md. E. (2009): An Introduction to Probability and Statistics.
   2ndEdn. (Reprint) John Wiley and Sons.
3. Miller, I. and Miller, M. (2002) : John E. Freund's Mathematical Statistics (6th addition, low price edition), Prentice Hall of India.
4. Dudewicz, E. J., and Mishra, S. N. (1988): Modern Mathematical Statistics. John Wiley & Sons.
5. Mood A.M, Graybill F.A. and Boes D.C,: Introduction to the Theory of Statistics, McGraw Hill.
6. Bhat B.R, Srivenkatramana T and RaoMadhava K.S. (1997) Statistics: A Beginner's Text, Vol.
   New Age International (P) Ltd.
7. Snedecor G.W and Cochran W.G.(1967) Statistical Methods. Iowa State University Press.
8. Gupta S.C and Kapoor V.K.: Fundamentals of Mathematical Statistics- Sultan Chand & Sons

Paper Code: STSDSCP4.1	**Paper Title:** PRACTICALS
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

List of Practicals

1. Unbiased estimators (including unbiased but absurd estimators)
2. Consistent estimators, efficient estimators and relative efficiency of estimators.
3. Cramer-Rao inequality and MVB estimators
4. Estimation of parameters: MLE-I
5. Estimation of parameters: MLE-II
6. Estimation of parameters: Method of moments.
7. Confidence interval
8. SPRT - I
9. SPRT –II

Paper Code: STSSEC4.2	**Paper Title:** Statistical Methods - II
Teaching Hours: 2 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 30Hrs	**Credits: 01**

UNIT- I

Index Numbers: Meaning and definition, types- Price, quantity and Value index. Uses and limitations of index numbers, construction of Index numbers, methods of Index numbers– Un-weighted and weighted prices and quantities. Test for Index numbers- TRT and FRT. Consumer price Index Numbers. **08 Hours**

UNIT- II

Time Series: Meaning and definition of Time series , Uses , components of time series. Measurement of Time series – Graphic, semi- avg , moving averages (3,4 and 5 yearly),methods of least square(Straight line and Quadratic) **08 Hours**

UNIT- III

Correlation and Regression: Definition simple correlation, types- positive, negative and Zero correlation. Methods of measurement - scatter diagram, Karl Pearson's correlation coefficient, Spearman's Rank correlation coefficient, Properties, coefficient of determination. Meaning and definition of linear regression, regression equations – X on Y and Y on X and its properties, fitting of regression equations and lines. **14 Hours**

Reference Books:

1. Goon A.M., Gupta M.K.: Das Gupta.B. (2005), Fundamentals of Statistics, Vol.I, World Press, Calcutta.
2. Mukhopadhyaya P. (2005) , Applied statistics, New Central Book agency, Calcutta.
3. Gupta S.C and Kapoor V.K.: Statistical methods - Sultan Chand & Sons Publications Delhi.

List of Assignments:

1. Computation of Price and quantity index numbers.
2. Test for Index Numbers and Cost of living Index numbers.
3. Computation of moving averages – 3, 4, and 5 years
4. Fitting of straight line and quadratic equations.
5. Computation of coefficient of Correlation.
6. Fitting of linear regression equations.

Paper Code: STSDSET5.1

Paper Title: Inference and Statistical Quality Control

Teaching Hours: 4 Hrs / Week **Marks:** Theory-80+IA-20

Teaching Hours: 60Hrs **Credits: 03**

UNIT I

Non parametric tests: Run test for randomness, Sign test and Wilcoxon signed rank test for one and paired samples. Run test, Median test and Mann-Whitney-Wilcoxon test for two sample problems. Test for independence based on Spearman's Rank correlation co-efficient. **12Hours**

UNIT II

Index Numbers : Meaning and definition, types- Price, quantity and Value index. Uses and limitations of index numbers, construction of Index numbers, methods of Index numbers– Un-weighted and weighted prices and quantities. Test for Index numbers- TRT and FRT. Consumer price Index Numbers. **12Hours**

UNIT III

Time Series: Meaning and definition of time series, uses, components of time series. Measurement of time series– graphical, semi averages, moving averages (3, 4 and 5 yearly) and method of least squares (straight line, quadratic and exponential) **12Hours**

UNIT IV

Statistical Quality Control: Meaning and definition of quality, quality assurance and management. Aims and objectives of statistical process control, chance and assignable causes of variation. 3-σ limits warning limits and probability limits. **12Hours**

UNIT V

Control charts for variables and Attributes: Construction of Control charts for variables $\overline{X}$ and R charts; charts for attributes P-chart, np-chart, c-chart and U-chart and their interpretations'; Acceptance sampling plan – single and double sampling. **12Hours**

Books for Reference:

1. S.P.Gupta and V. K Kapoor: Fundamentals of Mathematical Statistics; Sultan Chand & Co.
2. S.P.Gupta and V. K Kapoor: Fundamentals of Applied Statistics; Sultan Chand & Co.
3. Grant,E.L. and Leaven worth,R.S(1988):Statistical Quality Control,6th edition,McGrawHill
4. Gupta R.C.: Statistical Quality Control, - KhannaPub.Co.
5. Montgomery, C.D. (1999): Introduction to Statistical Quality Control, Wiley Int.Edn.
6. Goon A.M., Gupta M.K.: Das Gupta.B. (2005), Fundamentals of Statistics, Vol.I, World Press, Calcutta.
7. Rohatgi V. K. and Saleh, A.K. Md. E. (2009): An Introduction to Probability and Statistics 2nd Edn. (Reprint) John Wiley and Sons.

B.Sc V Semester- Statistics

Paper Code: STSDSEP5.1	**Paper Title:** PRACTICALS
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

List of Practicals

1.Non parametric tests - I

2. Non parametric tests – II

3. Index Number

4. Times Series

5.Construction of $\overline{X}$ and R charts.

6.Construction of P and np charts.

7.Construction of C and U - charts.

Books for reference:

1. S.P.Gupta and V. K Kapoor: Fundamentals of Mathematical Statistics; Sultan Chand & Co.

2. S.P.Gupta and V. K Kapoor: Fundamentals of Applied Statistics; Sultan Chand & Co.

3.Grant,E.L.andLeavenworth,R.S(1988):Statistical Quality Control, 6th edition, McGrawHill

4. Gupta R.C.: Statistical Quality Control, - KhannaPub.Co.

5. Montgomery, C.D. (1999): Introduction to Statistical Quality Control, Wiley Int.Edn.

6. Goon A.M., Gupta M.K.: Das Gupta.B. (2005), Fundamentals of Statistics, Vol.I, World Press, Calcutta.

7. Rohatgi V. K. and Saleh, A.K. Md. E. (2009): An Introduction to Probability and Statistics. 2ndEdn. (Reprint) John Wiley and Sons.

Paper Code: STSDSET5.2A
Paper Title: (i) Sampling Theory and Demography — Elective-I
Teaching Hours: 4 Hrs / Week **Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs **Credits: 03**

UNIT I

Introduction: Concepts of population and sample. Need for sampling. Complete enumeration vs Sample surveys. Non probability and probability sampling; meaning, need and illustrations . Use of random numbers .Principal steps in a sample survey. Requisites of a good questionnaire. Pilot surveys. Sampling and non sampling errors.

10 Hours

UNIT II

Simple Random Sampling: Sampling with and without replacement. Unbiased estimators of population mean and total. Derivation of sampling variance .Standard errors of the estimators.Derivations of variances of the estimators and their estimation .Determination of sample size.Formulas for sample size in sampling for proportions and means.

12 Hours

UNIT III

Stratified Random Sampling: Need for stratification unbiased estimator of mean and total in stratified random sampling. Derivation of the SE's and their estimation.Allocation of sample size under proportional, Optimum and Neyman allocation. Comparison of V (*ran*), V(*prop*) and V (*opt*) ignoring *f p c*. Estimation of gain in precision due to stratification.

12 Hours

UNIT IV

Systematic Random Sampling: Unbiased estimator of population mean and its variance.Expression of variance with intra class correlation.Systematic sampling with linear trend. Comparison of systematic sampling with simple and stratified random sampling procedure.

12 Hours

UNIT V

Demography and life tables: Sources of demographic data.Measurement of Mortality: Crude, Specific and Standardized death rate, Infant mortality rate, Neonatal mortality rate and maternal mortality rates. Fecundity and fertility. Measurement of fertility: Crude, Age specific, General and Total fertility rates Reproduction rates-NRR and GRR. Life table: Definition and uses, components of life table- Explanation of the columns of life table. Abridged life table - King's method.

14 Hours

Books for Reference:

1. Das M.N.: Sampling Theory and Methods-Statistical society, ISI, Kolkata.

2. Des Raj and Chandak; Sampling Theory-Narosa,New Delhi.

3. Sukhatme P.V.et.al: Sampling Theory of surveys with applications-Indian Society of Agricultural Statistics,New Delhi.

Paper Code: STSDSEP5.2A Elective-I	**Paper Title:** PRACTICALS
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

List of Practicals

1. Simple Random Sampling
2. Stratified Random Sampling
3. Systematic Sampling
4. Demography –I: Measurement of mortality, infant mortality, standardized death rates.
5. Demography- II: Measurement of fertility, ASFR, TFR and reproduction rates.
6. Demography- III: Construction of life-tables.

Books for reference:

1. Cochran.W.G.Sampling Techniques (3rd Ed)-Wiley Eastern.
2. Singh and Chaudhary,F.S. (1986): Theory and Analysis of Sample survey design (Wiley Eastern).
3. Goon A.M et.al: Fundamentals of Statistics, Vol. II- World Press, Calcutta.
4. Gupta S.C and Kapoor V.K.: Fundamentals of Applied Statistics- Sultan Chand & Sons Pub.
5. Srivastava .O.S (1983); A Text book of Demography-Vikas Publishing.
6. Cox.P.R(1970);Demography,Cambridge University Press.

Paper Code: STSDSET5.2B Elective-II	**Paper Title:** (i) Econometrics
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT I

Introduction: Objective behind building econometric models, nature of econometrics, model building, role of econometrics, structural and reduced forms. General linear model (GLM).Estimation under linear restrictions. **12Hours**

UNIT II

Multicollinearity: Introduction and concepts, detection of multicollinearity, consequences, tests and solutions of multicollinearity, specification error. **12Hours**

UNIT III

Generalized least squares estimation, Aitken estimators. Autocorrelation:concept, consequences of autocorrelated disturbances, detection and solution of autocorrelation. **12Hours**

UNIT IV

Heteroscedastic disturbances: Concepts and efficiency of Aitken estimator with OLS estimator under heteroscedasticity. Consequences of heteroscedasticity.Tests and solutions of heteroscedasticity. Autoregressive and Lag models, Dummy variables, Qualitative data. **12Hours**

UNIT V

Gauss-Markov set up: Theory of linear equation, estimability of linear parametric function, method of least square, Gauss markov thermo, estimation of error varience. **12Hours**

Books for Reference:

1. Gujarati, D. and Sangeetha, S. (2007): Basic Econometrics, 4th Edition, McGraw Hill Companies.

2. Johnston, J. (1972): Econometric Methods, 2nd Edition, McGraw Hill International.

3. Koutsoyiannis, A. (2004): Theory of Econometrics, 2nd Edition, Palgrave Macmillan Limited,

4. Maddala, G.S. and Lahiri, K. (2009): Introduction to Econometrics, 4th Edition, John Wiley & Sons.

B.Sc V Semester- Statistics

Paper Code: STSDSEP5.2B Elective-II	**Paper Title:** PRACTICALS
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10 **Credits: 01**

List of Practicals

1. Problems based on estimation of General linear model
2. Testing of parameters of General linear model
3. Forecasting of General linear model
4. Problems concerning specification errors
5. Problems related to consequences of Multicollinearity
6. Diagnostics of Multicollinearity
7. Problems related to consequences of Autocorrelation (AR(I))
8. Diagnostics of Autocorrelation

B.Sc V Semester- Statistics

Paper Code: STSSEC-3	**Paper Title:** Demography
Teaching Hours: 2 Hrs / Week	**Marks:** Theory-40+IA-10
Teaching Hours: 30Hrs	**Credits: 01**

UNIT- I

C.S.O : Statistical organization at Center, N.S.S.O and C.S.O - historical back ground, functions and publications. Brief study on Indian population census of 1991, 2001 and 2011 year (central and state). **10 Hours**

UNIT- II

Vital statistics – I : Meaning and definition of Vital statistics ,Sources of Vital statistics, uses and measurement of population. Measurement of Mortality: Crude, Specific and Standardized death rate, Infant mortality rate, Neonatal mortality rate and maternal mortality rates. **10 Hours**

UNIT-III

Vital statistics – II: Measurement of fertility: Crude, Age specific, General and Total fertility rates. Reproduction rates- N.R.R and G.R.R. Life table: Definition and uses, components of life table- Explanation of the columns of life table. **10 Hours**

SUGGESTED READING:

1. Moore, D.S. and McCabe, G.P. and Craig, B.A. (2014): Introduction to the Practice of Statistics,
W.H. Freeman
2. Cunningham, B.J (2012):Using SPSS: An Interactive Hands-on approach
3. Cho, M,J., Martinez, W.L. (2014) Statistics in MATLAB: A Primer, Chapman andHall/CRC

B.Sc VI Semester- Statistics

Paper Code: STSDSET6.1	**Paper Title:** Design of Experiments
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT-I

Analysis of Variance: Meaning and assumptions. Analysis of variance (fixed effects model) - Analysis of one-way, two-way classified data, expectation of mean sum of squares, ANOVA tables. Least significant difference. Case of multiple but equal number of observations per cell in two-way classification (with interaction). 3 – way classification. **14 Hours**

UNIT-II

Design of Experiments: Principles of design of experiments. Completely randomized (CRD), Randomized block (RBD) and Latin square designs (LSD)- layout and formation and the analysis using fixed effect models. Comparison of efficiencies of CRD, RBD **12 Hours**

UNIT-III

Latin Square Design : Layout of LSD and analysis. Estimation of missing observation in RBD, LSD and Relative efficiency. **12 Hours**

UNIT-IV

Factorial Experiments: 2^2 -- factorials. Main effects and interactions, their best estimates and orthogonal contrasts. Yates methods of computing factorial effects .Total, partial confounding in a 2^3 -- experiments with RDB layout. **12 Hours**

UNIT-V

Spilt-Plot design: Introduction, Definition and examples of Split-Plot design. Analysis of Split-Plot design and complete ANOVA table for a split- plot design. **10 Hour**

Books for Reference:

1. Cochran.W.G. andG.M.Cox: Experimental Designs-John Wiley.
2. Goon A.M et.al: Fundamentals of Statistics, Vol. II- World Press, Calcutta.
3. Gupta S.C and VK Kapoor: Fundamentals of Applied Statistics- Sultan Chand & Sons.
4. Montgomery.D.C: Design and analysis of experiments: Wiley
5. Das M.N. and Giri.N: Design of Experiments: Theory and Applications.
6. Joshi.D.D.Linear estimation and Design of Experiments: New-Age International.

B.Sc VI Semester- Statistics

Paper Code: STSDSEP6.1	**Paper Title:** PRACTICALS
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

List of Practicals

1. ANOVA - I
2. ANOVA - II
3. CRD
4. RBD
5. LSD
6. Estimation of missing value in RBD & LSD and Analysis
7. Factorial Designs 2^2 and 2^3

Paper Code: STSDSET6.2A Elective-I	**Paper Title:** (i) Operations Research-I
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

Unit: 1.

Linear Programming Problem (LPP): Definition and Scope of Operations Research (OR). Definition, Basic Concepts and Formulation of an LPP. Mathematical form of general LPP, Standard LPP, Slack, Surplus and artificial variables, Feasible solution, Basic feasible solution, Optimum solution. Graphical solution.Simplex algorithm Big-M Method and. Examples. **15 Hours**

Unit:2.

Transportation problem: Definition and mathematical form of TP, feasible solution, basic feasible solution, Optimum solution. Methods of finding BFS: Northwest corner role, matrix minima method, and Unit cost penalty method (Vogel's approximation method). Method of finding optimum solution to a TP, Unbalanced TP. Simple problems.

10 Hours

Unit: 3.

Assignment problem: Definition and mathematical form of assignment problem, procedure of solving assignment problem. Simple problems.The travelling salesman problem.

Sequencing Problms: Introduction: Definition, Terminology and assumptions. Problems through *n* jobs through *2* machines.Processing *n* jobs through *3* machines. **15 Hours**

Unit: 4.

Game Theory: Rectangle game, minimax-maximin principle, solution to rectangular game using graphical method, dominance and modified dominance property to reduce the game matrix. **10 Hours**

Unit: 5.

Inventory theory: Description of Inventory system. Inventory costs. Demand lead time. EOQ model with and without shortages.EOQ model with finite replenishment.Probabilistic demand.News paper boy problem. **10 Hours**

Books for Reference:

1. Kantiswaroop, Man Mohan and P.K Gupta (2003): Operations Research-Sultan Chand & Co.

2. Churchman C.W, Ackoff R.L and Arnoff E.L (1957): Introduction to Operations Research-John Wiley.

3. Shenoy,G.V.,Srivatsava,U.K and Sharma,S.C.: Operations Research for Management,New Age International.

4. S. Kalavathy Operations Research Methods and Practice- New age Publication

5. Mittal K.V: Optimization Method- New age Publication

6. Kapoor V.K: Operations Research- Sultan Chand & Co.

7. Narag,A.S..Linear Programming and Decision making. - Sultan Chand & Co.

Paper Code: STSDSEP6.2A Elective-I	**Paper Title:** PRACTICALS
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

List of Practicals

1. Linear Programming Problem-I: Formulation of LPP.
2. Linear Programming Problem –II: Graphical method for solving LPP
3. Linear Programming Problem-III: Simplex and Big-M methods to solve LPP.
4. Transportation problem
5. Assignment problem
6. Game Theory
7. Inventory theory- I
8. Inventory theory –II

Paper Code: STSDSET6.2B Elective-II	**Paper Title:** (ii) Operations Research-II
Teaching Hours: 4 Hrs / Week	**Marks:** Theory-80+IA-20
Teaching Hours: 60Hrs	**Credits: 03**

UNIT I

Queuing Theory **:** Basics concept of queue, characteristic, steady state system, size distribution in M/M/1 queue system(only statement), waiting time distribution, little's formula, measure of effectiveness, derivations of expressions for expected queue length, size, waiting time, description of M/M/C queuing system **14Hours**

UNIT II

Simulation: Types of Simulation.Random variable. Monte - Carlo technique and generation of random numbers. **08Hours**

UNIT III

Decision Theory: Introduction, basic terminology, steps in decision making. Decision making environment - Decision under conditions of uncertainty – maximax criterion, maximin criterion, Laplace criterion, Regret criterion and Hurwicz criterion.Decisions making under conditions of risk – EMV, EVPI and EOL.Decision tree analysis. **14Hours**

UNIT IV

PERT/CPM: Introduction, basic terms, common errors.Rules of Net work construction. Fulkerson's Rule, construction of Network.Time analysis and Critical Path Method.

12Hours

UNIT V

Inventory theory: Description of Inventory system. Inventory costs. Demand lead time. EOQ model with and without shortages. EOQ model with finite replenishment. Probabilistic demand. News paper boy problem. **12Hours**

Books for reference:

1. Taha, H. A. (2007): Operations Research: An Introduction, 8th Edition, PrenticeHall of India.
2. KantiSwarup, Gupta, P.K. and Manmohan (2007): Operations Research, 13th Edition,Sultan Chand and Sons.
3. Hadley, G: (2002) : Linear Programming, Narosa Publications
4. Hillier, F.A and Lieberman, G.J. (2010): Introduction to Operations Research-Concepts and cases, 9th Edition, Tata McGraw Hill

B.Sc VI Semester- Statistics

Paper Code: STSDSEP6.2B Elective-II	**Paper Title:** PRACTICALS
Practical Hours: 3 Hrs / Week	**Marks:** Practical-40+IA-10
	Credits: 01

List of Practicals

1. Sequencing Problems.
2. Simulation.
3. Decision Theory – I
4. Decision Theory – II
5. PERT/CPM – I
5. PERT/CPM – II

B.Sc VI Semester- Statistics

Paper Code: STSSECT5.3	**Paper Title:** Operation Research Techniques
Teaching Hours: 2 Hrs / Week	**Marks:** Theory-40+IA-10
Teaching Hours: 30Hrs	**Credits: 01**

UNIT-I.

Linear Programming Problem (LPP): Definition and Scope of Operations Research (OR). Definition, Basic Concepts and Formulation of an LPP. Mathematical form of general LPP, Standard LPP, Slack, Surplus and artificial variables, Feasible solution, Basic feasible solution, Optimum solution. Graphical solution. Simplex algorithm. **10 Hours**

UNIT-II

Transportation problem: Definition and mathematical form of TP, feasible solution, basic feasible solution, Optimum solution. Methods of finding BFS: North - west corner role, matrix minima method, and Unit cost penalty method (Vogel's approximation method).simple problems. **10 Hours**

UNIT-III

Assignment problem: Definition and mathematical form of assignment problem, procedure of solving assignment problem. Simple problems. The travelling salesman problem. **10 Hours**

List of Assignments :

1. Linear Programming Problem-I: Formulation of LPP.
2. Linear Programming Problem –II: Graphical method for solving LPP
3. Linear Programming Problem-III: Simplex
4. Transportation problem – I
5. Transportation problem - II
5. Assignment problem

Books for References :

1. Kanti swaroop, Man Mohan and P.K Gupta (2003): Operations Research-Sultan Chand & Co.

2. Churchman C.W, Ackoff R.L and Arnoff E.L (1957): Introduction to Operations Research-John Wiley.

3. Shenoy,G.V.,Srivatsava,U.K and Sharma,S.C.: Operations Research for Management, New Age Int.

4. Operations Research: S. Kalavathy Himalaya Publication

RANI CHANNAMMA UNIVERSITY BELAGAVI

THE COURSE STRUCTURE & SYLLABUS OF UNDER GRADUATE

BACHELOR OF SCIENCE

ZOOLOGY

1ST TO 6TH Semesters

w.e.f.

Academic Year 2020-21 and Onwards
Under

CHOICE BASED CREDIT SYSTEM (CBCS)

CHOICE BASED CREDIT SYSTEM [CBCS]
B.Sc. Program with Optional Subject: ZOOLOGY

(With effect from the academic year 2020-21 onwards)								
Sem	**Part**	**Paper Code**	**Title of the Paper**	**Hours/ Week**	**Marks**			**Subject Credits**
					IA	**Exam**	**Total**	
I	**Part – 1 DSC**	ZOODSCT 1.1	Animal discovery	4	20	80	100	3
		ZOODSCP 1.1	Practicals-1	3	10	40	50	1
		Total: Hours / Credits		**7**			**150**	**4**
II	**Part – 1 DSC**	ZOODSCT 2.1	Comparative anatomy and development biology of vertebrates	4	20	80	100	3
		ZOODSCP 2.1	Practicals-2	3	10	40	50	1
		Total: Hours / Credits		**7**			**150**	**4**

(With effect from the academic year 2021-22 onwards)								
Sem	**Part**	**Paper Code**	**Title of the Paper**	**Hours/ Week**	**Marks**			**Subject Credits**
					IA	**Exam**	**Total**	
III	**Part – 1 DSC**	ZOODSCT3.1	Physiology, Biochemistry and history	4	20	80	100	3
		ZOODSCP3.1	Practicals-3	3	10	40	50	1
	Part – 2 SEC	ZOOSECT3.2	Medical diagnostics	2	10	40	50	2
		Total: Hours / Credits		**9**			**200**	**6**
IV	**Part – 1 DSC**	ZOODSCT4.1	Genetics and evolutionary biology	4	20	80	100	3
		ZOODSCP4.1	Practicals-4	3	10	40	50	1
	Part – 2 SEC	ZOOSECT4.2	Aquarium fish keeping	2	10	40	50	2
		Total: Hours / Credits		**9**			**200**	**6**

(With effect from the academic year 2022-23 onwards)								
Sem	**Part**	**Paper Code**	**Title of Paper**	**Hours/ Week**	**Marks**			**Subject Credits**
					IA	**Exam**	**Total**	
V	**Part – 1 DSE**	ZOODSET 5.1	Applied zoology and Ethology	4	20	80	100	3
		ZOODSEP 5.1	Practicals-5	3	10	40	50	1
		ZOODSET 5.2A (**Elective I)**	Cell biology, Biotechnology, Biostatics and research methodology	4	20	80	100	3
		ZOODSEP 5.2A **(Elective I)**	Practicals-5A	3	10	40	50	1
		ZOODSET 5.2B **(Elective II)**	Immunology	4	20	80	100	3
		ZOODSEP 5.2B **(Elective II)**	Practicals-5B	3	10	40	50	1
	Part – 2 SEC	ZOOSECT5.3	Apiculture	3	10	40	50	2
		Total: Hours / Credits		**17**			**350**	**10**
Note: Students have to choose either Elective-I or Elective-II								
VI	**Part – 1 DSE**	ZOODSET 6.1	Reproductive biology	4	20	80	100	3
		ZOODSEP 6.1	Practicals-6	3	10	40	50	1
		ZOODSET 6.2A **(Elective III)**	Ecology, Zoogeography and wildlife conservation**.**	4	20	80	100	3
		ZOODSEP 6.2A **(Elective III)**	Practicals-6A	3	10	40	50	1
		ZOODSET 6.2B (**Elective IV)**	Insects, Vectors and Diseases	4	20	80	100	3
		ZOODSEP 6.2B (**Elective IV)**	Practicals-6B	3	10	40	50	1
	Part – 2 SEC	ZOOSECT 6.3	Apiculture	3	10	40	50	2
		Total: Hours / Credits		**17**			**350**	**10**
Note: Students have to choose either Elective-III or Elective-IV								

T: Theory, P: Practical, CC/EA: Co-curricular/Extension Activities. AECC: Ability Enhancement Compulsory Course, DSC: Discipline Specific Course. DSE: Discipline Specific Elective, SEC: Skill Enhancement Course).

Note: Duration of examinations is 03 h for 80 Marks theory and 02 h for 40 marks theory. For practicals, duration of examination is 03 h.

Schema of Evaluation for Practical Examination

	Particulars	Marks Allotted
1	**Experimental preparation involving the following ***	**30**
2	**Journal (record) assessment**	**05**
3	**Oral performance (Viva-voce)**	**05**
	Total	**40**
*	Brief description & tabulation	04
	Diagrams	04
	Preparation of required solutions and Experimental set-up	04
	Record of observation and performance of experiment	10
	Calculation including drawing graph	06
	Accuracy of result with unit	02

Question Paper pattern

First Semester B.Sc. Degree Examination, December 2020

(CBCS Scheme-2020-21: Regular)

ZOOLOGY

ZOODSCT 1.1: Animal discovery

Time: 3 Hours | Max. Marks: 80

Q. No. I. Answer any TEN of the following | 2X10= 20 Marks

1)
2)
3)
4)
5)
6)
7)
8)
9)
10)
11)
12)

Q. NO. II. Answer the following questions | 5X3=15 Marks

a)
b)
c)
OR
d)

Q. No. III. Answer the following questions | 5x3= 15 Marks

a)
b)
c)
OR
d)

Q. No. IV. Answer the following questions | 5x3=15 Marks

a)
b)
c)
OR
d)

Q. No. V. Answer the following questions | 5x3=15 Marks

a)
b)
c)
OR
d)

Question Paper pattern

First Semester B.Sc. Degree Examination, December 2020

(CBCS Scheme-2020-21: Regular)

ZOOLOGY

ZOOSECT 3.2: Title of the Paper

Time: 3 Hours Max. Marks: 40

Q. No. I. Answer any **FIVE** of the following 2X5= 20 Marks

1)

2)

3)

4)

5)

6)

Q. NO. II Answer the following questions 5X3=15 Marks

a)

b)

c)

OR

d)

Q. No. III. Answer the following questions 5x3= 15 Marks

a)

b)

c)

OR

d)

Instruction to set the DSC/DSE question paper.

- Question number 1 has 12 sub questions consisting of 3 questions from each unit. Each question carries two marks. Student has to answer any ten questions.
- Question number II are from unit I.
- Question number III are from unit II.
- Question number IV are from unit III
- Question number V are from unit IV.

Instruction to set the SEC question paper.

- Question number 1 has 6 sub questions consisting of 3 questions from each unit. Each question carries two marks. Student has to answer any five questions.
- Question number I is from unit I.
- Question number II is from unit II.

First Semester B.Sc. (Zoology)

Paper Code: ZOODSCT 1.1 **Paper Title:** Animal Diversity
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

UNIT – 1 **15 Hours**

Kingdom Protista: General characters and classification up to classes with one example for each class. locomotion in Protozoa

Phylum Porifera: General characters and classification up to classes with one example for each class. Canal System in *Sycon*

Phylum Cnidaria: General characters and classification up to classes with one example for each class. Polymorphism

Phylum Platyhelminthes: General characters and classification up to classes with one example for each class. Parasitic adaptations

Phylum Nemathelminthes: General characters and classification up to classes with one example for each class. Life history of *Ascaris.* Parasitic adaptations in roundworms

UNIT – 2 **15 Hours**

Phylum Annelida: General characters and classification up to classes with one example for each class. Metamerism in Annelida

Phylum Arthropoda: General characters and classification up to classes with one example for each class. Metamorphosis in Insects

Phylum Mollusca: General characters and classification up to classes with one example for each class. Torsion in gastropods

Phylum Echinodermata: General characters and classification up to classes with one example for each class. Water-vascular system in Asteroidea

UNIT – 3 **15 hours**

Phylyum Chordata: Characters of chordates. Differences between chordates and non-chordates. General features of Protochordata (Brief note on Hemichordata, Urochordata, Cephalochordata)

Agnatha and Gnathostomata: General features of Agnatha and Gnathostomata. Classification of cyclostomes up to classes

Pisces: General features and classification up to living orders. Scales in fihses Migration in Fishes

Amphibia: General features and classification up to living orders. Parental care in amphibians

Reptiles: General features and Classification up to living orders. Differences between poisonous and non-poisonous snakes. Snake bite and treatment

UNIT – 4 **15 Hours**

Aves: General features. Salient features of Passeriformes, Pisciformes, Columbiformes,

Mammals: General characters. Salient features of Monotremes, Marsupialia, Insectivora, Rodentia, Perissodactyla, Chirpotera, Edentata, Cetaceae and Primates with one example for each. Ear ossicles in mammals.

Suggested Readings:

1. Agarwal V. P. and Dalela R. C. (1975): Textbook of Vertebrate Zoology. Jai Prakashnath Co.
2. Barnes, R.D. (1982): Invertebrate Zoology. Fifth edition
3. Barnes, R.D. (1982): Vertebrate Zoology. Fifth edition
4. Barnes, R.S.K., Calow, P., Olive, P.J.W Golding, D.W. and Spicer, J.I. (2002): The Invertebrates: A
5. New Synthesis, III Edition, Blackwell Science
6. Barrington E. J. W. (1981): Invertebrate structure and Function. ELBS. Dhami P.S. and Dhami J. K.
7. (2000): Chordate Zoology. S. Chand & Co. Dhami P.S. and Dhami J. K. (2000): Invertebrate Zoology. S. Chand & Co.
8. Ekambaranatha Iyer M. and Anantakrishnan T. N. (1990): A manual of Zoology. Vol. I. Invertebrata (Part 1 &2). S. Vishwanathan Pvt. Ltd.
9. Ekambaranatha Iyer M. and Anantakrishnan T. N. (1990): A manual of Zoology. Vol. II. Chordata S. Vishwanathan Pvt. Ltd.
10. Jordan E. L. and Verma P.S. (1976): Chordate Zoology. S. Chand & Co. Jordan E. L. and Verma
11. P.S. (1976): Invertebrate Zoology. S. Chand & Co.
12. Kotpal R. L. (1993): Protozoa- Echinodermata (all volumes). Rastogi Publ. Pough H (2004): Vertebrate life, VIII Edition, Pearson International.
13. Ruppert and Barnes, R.D. (2006): Invertebrate Zoology, VIII Edition. Holt Saunders International Edition.

First Semester B.Sc. (Zoology)

Paper Code: ZOODSCP 1.1 **Paper Title: Practicals-1**
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours: 45 **Credits :**1

ZOODSC P11-PRACTICAL-I

1. Study of the following specimens making use of permanent slides / specimens:

i. Study of unicellular and cellular grade organized animals: *Amoeba, Euglena, Paramecium and Sycon*
ii. Study of tissue grade organized animals: *Obelia, Physalia, Aurelia, Metridium,* Study of flat worms: *Planaria, Taenia solium*
iii. Study of round worms: Male and female *Ascaris lumbricoides*
iv. Study of segmented Animals: *Nereis, Pheretima, Hirudinaria,*
v. Study of animal forms with jointed appendages: *Palaemon, Cancer, Limulus, Apis,*
vi. Study of soft bodied animals: *Chiton, Dentalium, Pila, Unio, Loligo, Sepia,*
vii. Study of spiny skinned animals: *Pentaceros, Ophiura, Echinus, Cucumaria* and *Antedon*
viii. Study of Protochordates: *Balanoglossus, Herdmania, Branchiostoma*
ix. Study of Fishes: *Torpedo,Labeo, Exocoetus, Anguilla*
x. Study of Amphibians: *Ichthyophis, Salamandra, Bufo, Hyla*
xi. Study of Reptiles: *Chelone, Chamaeleon, Draco, Vipera, Naja*
xii. Study of Birds: *Duck, Cuccoo, Wood pecker, Kingfisher, Owl, Peacock*
xiii. Study of Mammals: *Duck billed platypus, Manis, Bat, Loris*

2. Mounting of setae, blood glands, nephridia in Earthworm
(Collect the dead worms from vermicompost pits of farmers and preserve)
3. Mounting of mouth parts of honeybee, cockroach, housefly,mosquitoes
4. Mounting of brain in fowl / rat (collect dead fowl / rat heads and preserve)
5. Study tour / field visit: Compulsory tour / visit to understand faunaldiversity

SUGGESTED READINGS

1. Ruppert and Barnes, R.D. (2006): Invertebrate Zoology, VIII Edition. Holt Saunders International Edition.
2. Barnes, R.S.K., Calow, P., Olive, P.J.W., Golding, D.W. and Spicer, J.I. (2002): *The Invertebrates: A New Synthesis*, III Edition, Blackwell Science
3. Young, J. Z. (2004): *The Life of Vertebrates*. III Edition. Oxford university press.
4. Pough H (2006): *Vertebrate life*, VIII Edition, Pearson International.
5. Hall B.K. and Hallgrimsson B. (2008): Strickberger's Evolution. IV Edition. Jones and Bartlett Publishers Inc.
6. P. S. Dhami and J. K Dhami (2000): Practical Zoology S. Chand and Co, New Delhi

Second Semester B.Sc. (Zoology)

Paper Code: ZOODSCT 2.1 **Paper Title:** Anatomy and Developmental Biology of Vertebrates

Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20

Total hours:60 **Credits :**3

UNIT – 1 15 Hours

Integument in different classes of chordates: (fishes, amphibian, reptilian, aves and Mammalia)

Skeletal System (Girdles): Pectoral girdle and pelvic girdle in Frog, Varanus, Fowl and Rabbit

Digestive System: Brief account of alimentary canal (digestive tract) of different vertebrates

UNIT - 2 15 Hours

Respiratory System: Brief account of gills, lungs, trachea and air sacs in vertebrates

Circulatory System: Comparative account of heart in different vertebrates

Nervous System: Comparative account of brain in different vertebrates

UNIT - 3 15 Hours

Early Embryonic Development: Gametogenesis (Spermatogenesis and oogenesis), Fertilization, Types of Eggs and Patterns of Cleavage, Types of Eggs and Patterns of Cleavage, Placenta types, functions and structure

UNIT - 4 15 Hours

Early Development: Frog development up to Gastrulation. Organizer phenomenon. Development of chick (Fertilization, structure of egg, cleavage, blastulation), 24 hours, 36 hours and 48 hours chick embryo. Human Development – up to implantation

Suggested Readings:

1. Comparative anatomy of vertebrates By R. K. Saxena
2. Comparative Anatomy by Aurora M. Sebastiani and Dale W. Fishbeck
3. Developmental biology By Rastogi & Jayraj. Kedarnath Ramnath publsihers, meerut.
4. Introduction to Embryology B I Ballinsky Publisher: Thomson
5. Learning Patten's foundation of Embryology Bruce M Carlson Publisher: McGraw Hill Education Principles of Embryology Waddington C H Publisher: Macmillan, New York.
6. Developmental Biology Scott F Gilbert. Publisher: Sinauer Associates Inc., U.S
7. Developmental Biology –a modern Synthesis By K Vasudev Rao. Published by The Associated Pub, Ambala Cantt.
8. Embryology By Mohan Arora. Himalaya Publishing House Pvt. Ltd, New Delhi.
9. Embryology – Constructing the Organism Scott F Gilbert. Publisher: Sinauer Associates Inc., U.S.
10. Elements of Developmental Biology Dr P.C. Jain Vishal Publishing Co. New Delhi Vertebrate Embryology N N Majumdar Publisher: McGraw-Hill Education

Second Semester B.Sc. (Zoology)

Paper Code: ZOODSCT 2.1 **Paper Title:** Practicals-2
Teaching Hours: 3H / Week **Marks:** Th-40+IA-10
Total hours: 45 **Credits :**1

1. Osteology: Disarticulated skeleton of frog and rabbit
2. Comparative study of girdles: Pectoral girdle and pelvic girdle in Frog, Varanus, Fowl and Rabbit
3. Comparative account of heart in different vertebrates
4. Comparative account of brain in different vertebrates
5. Embryology: Study of developmental stages – Whole mounts and sections through permanent slides, specimens: cleavage stages, blastula, gastrula
6. Chick embryo mounting (24-hour, 36-hour, 48hour)

SUGGESTED READINGS

1. Kardong, K.V. (2005) *Vertebrates' Comparative Anatomy, Function and Evolution*. IV Edition. McGraw-Hill Higher Education.
2. Kent, G.C. and Carr R.K. (2000). *Comparative Anatomy of the Vertebrates*. IX Edition. The McGraw-Hill Companies.
3. Hilderbr and, M and Gaslow G.E. *Analysis of Vertebrate Structure*, John Wiley and Sons.
4. Walter, H.E. and Sayles, L.P; *Biology of Vertebrates,* Khosla Publishing House.
5. Gilbert, S. F. (2006). Developmental Biology, VIII Edition, Sinauer Associates, Inc., Publishers, Sunderland, Massachusetts, USA.
6. Balinsky, B.I. (2008). An introduction to Embryology, International Thomson Computer Press.
7. Carlson, Bruce M (1996). Patten's Foundations of Embryology, McGraw Hill,Inc.

Third Semester B.Sc. (Zoology)

Paper Code: ZOODSCT 3.1 **Paper Title:** Physiology, Biochemistry and Histology
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

UNIT – 1 15 Hours

Digestion: Physiology of digestion. Absorption of carbohydrates, proteins and lipids Concept of balanced diet

Respiration: Pulmonary ventilation, Transport of Oxygen and carbon dioxide in blood. Chloride shift, Respiratory pigments

Excretion: Structure of Nephron, Mechanism of Urine formation, Ornithine cycle, Counter-current Mechanism

UNIT - 2 15 Hours

Circulation Composition of blood, Hemostasis, Structure of Heart. Types of Hearts - Neurogenic and Myogenic heart., Origin and conduction of the cardiac impulse. Cardiac cycle. Blood pressure. Carbohydrate Metabolism: Glycolysis, Krebs Cycle, Pentose phosphate pathway, Gluconeogenesis, Glycogen metabolism, Electron transport chain

UNIT - 3 15 Hours

Lipid Metabolism: Biosynthesis and β oxidation of palmitic acid

Protein metabolism: Transamination and Deamination

Enzymes: Introduction, Mechanism of action, Enzyme inhibitors, specificity of Enzymes, reversibility of enzymes action and Enzyme inhibitors. Brief account of coenzymes and cofactors. Clinical importance of enzymes**.**

UNIT - 4 15 Hours

Nerve and muscle: Structure of a neuron, resting membrane potential, Origin of Action potential and its propagation in myelinated fibre, Ultra-structure of skeletal muscle, Sliding filament theory of muscle contraction, neuromuscular junction, neurotransmitters

Histology: Histological details of the organs - Salivary gland, pancreas, liver, kidney, adrenal, testis and ovary

Suggested readings:

1. Essentials of Animal Physiology By Rastogi S C. New Age International Publishers, New Delhi
2. Animal Physiology By Nigam H C. Vishal Publishing Co. New Delhi
3. Animal Physiology By P S Verma, V K Agarwal and B S Tyagi. S Chand & Company Ltd, New Delhi
4. Lehninger Principles of Biochemistry By Nelson D L Publisher: W H Freeman & Co Biochemistry By Mathews Van Holde Publsiher. Ahren Pearson Education
5. Animal Physiology by Schmidt Nielson Cambridge University Publications Introduction to Histology By Gauba R K Tata Mc Graw Hill New Delhi
6. Cells and Tissues: Introduction to Histology By N D Cells and Rogers. A W Academic Press
7. Basic medical Histology: Biology of cells, tissues and organs By Kessel Richard G Oxford University Press
8. Text Book of Histology By Bloom and Fawcett. Saunders Publishers Philadelphia
9. Bailey's Text Book of Histology By W M Copenhaver, R P Bunge and Mary B Bunge. Willims and Wilkins Company, Baltimore

Third Semester B.Sc. (Zoology)

Paper Code: ZOODSCP 3.1 **Paper Title:** Practicals-3
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours: 45 **Credits :**1

ZOODSC P31: PRACTICAL-III **60 Hours**

1. Preparation of hemin crystals
2. Study of permanent histological sections of mammalian Salivary gland, pancreas, liver, kidney, adrenal gland, testis and ovary
3. Qualitative tests for carbohydrates in given solutions (Glucose, Sucrose and Starch)
4. Qualitative tests for proteins and lipids in given solutions
5. Study of activity of salivary amylase under optimum conditions
6. Preparation of permanent histological slides

SUGGESTED READINGS

1. Tortora, G.J. and Derrickson, B.H. (2009). *Principles of Anatomy and Physiology*, XII Edition, John Wiley & Sons, Inc.
2. Widmaier, E.P., Raff, H. and Strang, K.T. (2008) *Vander's Human Physiology*, XI Edition., McGrawHill
3. Guyton, A.C. and Hall, J.E. (2011). T*extbook of Medical Physiology*, XII Edition, Harcourt Asia Pvt. Ltd/ W.B. Saunders Company
4. Berg, J. M., Tymoczko, J. L. and Stryer, L. (2006). *Biochemistry*. VI Edition. W.H Freeman and Co.
5. Nelson, D. L., Cox, M. M. and Lehninger, A.L. (2009). *Principles of Biochemistry*.
6. IV Edition. W.H. Freeman and Co.
7. Murray, R.K., Granner, D.K., Mayes, P.A. and Rodwell, V.W. (2009). *Harper's Illustrated Biochemistry*. XXVIII Edition. Lange Medical Books/McGraw3Hill.

Third Semester B.Sc. (Zoology) Skill Enhancement Course

Paper Code: ZOOSEC 3.2 **Paper Title:** Medical Diagnostics
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours: 30 **Credits :**2

UNIT – 1

Introduction to Medical Diagnostics and its Importance **Diagnostic methods used for analysis of blood:** Blood composition, Preparation of blood smear and Differential Leucocyte Count (D.L.C) using Leishman's stain, Platelet count using haemocytometer, Erythrocyte Sedimentary Rate (E.S.R)
Diagnostic Methods Used for Urine Analysis: Urine Analysis: Physical characteristics; Normal and abnormal constituents

UNIT – 2
Non-infectious Diseases: Causes, types, symptoms, complications, diagnosis and prevention of Diabetes (Type I and Type II), Hypertension (Primary and secondary), Testing of blood glucose using Glucometer/Kit
Infectious Diseases: Causes, types, symptoms, diagnosis and prevention of Tuberculosis and Hepatitis
Tumours: Types (Benign/Malignant), Detection and metastasis; Medical imaging: X-Ray of Bone, fracture, PET, MRI and CT Scan (using photographs).
Syndrome: AIDS – causes, symptoms, prevention

SUGGESTED READINGS

1. Park, K. (2007), *Preventive and Social Medicine*, B.B. Publishers
2. Godkar P.B. and Godkar D.P. *Textbook of Medical Laboratory Technology*, II. Edition, Bhalani Publishing House
3. Cheesbrough M., *A Laboratory Manual for Rural Tropical Hospitals, A Basis for Training Courses*
4. Guyton A.C. and Hall J.E. T*extbook of Medical Physiology*, Saunders
5. Robbins and Cortan, *Pathologic Basis of Disease*, VIIIEdition, Saunders
6. Prakash, G. (2012), *Lab Manual on Blood Analysis and Medical Diagnostics*, S. Chand and Co. Ltd.

Fourth Semester B.Sc. (Zoology)

Paper Code: ZOODSCT 4.1 **Paper Title:** Genetics and Evolutionary Biology
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours: 60 **Credits :**3

UNIT – 1 15 **Hours**

Introduction to Genetics: Mendel and his contribution. Monohybrid, Dihybrid cross (Laws). Definition of genetics terminologies. Genetic Variation, Molecular basis of Genetic Information

Mendelian Genetics: Principles of Inheritance, Chromosome theory of inheritance, Incomplete dominance and codominance, Multiple alleles, Lethal alleles, sex linked inheritance

Chromosomes: Normal and giant chromosomes (salivary gland & lampbrush)

Linkage, Crossing Over and Chromosomal Mapping: Linkage and crossing over, Recombination frequency as a measure of linkage intensity. Somatic cell genetics – an alternative approach to gene mapping

UNIT – 2 15 Hours

Mutations: Chromosomal Mutations: Deletion, Duplication, Inversion, Translocation, Aneuploidy and Polyploidy; Gene mutations: Induced versus Spontaneous mutations, Back versus Suppressor mutations

Sex Determination: Chromosomal mechanisms, dosage compensation

Introduction to Evolutionary Theories: Lamarckism, Darwinism, Neo-Darwinism

UNIT – 3 15 Hours

Origin of Life: origin of life and its theories

Evidences in favor of organic evolution: Fossilization, Types of fossils. Dating of fossils. Evolution of man. Morphological and paleontological evidences in favour of evolution

Processes of Evolutionary Change: Organic variations, Isolating Mechanisms; Natural selection (Example: Industrial melanism). Artificial selection

UNIT – 4 15 Hours

Species Concept: Biological species concept (Advantages and Limitations); Modes of speciation (Allopatric and Sympatric)

Macro-evolution: Macro-evolutionary Principles (example: Darwin's Finches)

Direct Evidences of Evolution: Types of fossils, Incompleteness of fossil record, Dating of fossils, Phylogeny of horse

Suggested readings

1. Principles of Genetics By Gardner Eldon John, Michael J Simmons and Peter Snustad John Wiley & Sons, Inc. NewYork
2. Genetics By Kavita B Ahluwalia. Wiley Eastern Ltd, New Age International Ltd, NewDelhi
3. A text book of Genetics By H S Bhamrah and C M Chaturvedi. Anmol Publications Pvt. Ltd. NewDelhi
4. Cell Biology, Genetics, Molecular Biology, Evolution and Ecology By Dr P S Verma and Dr V K Agarwal. S Chand & Company Pvt. Ltd. NewDelhi
5. Genetics: A survey of the principles of Heredity By A M Winchester Oxford and IBH
6. Principles of Molecular Genetics By S Sundara Rajan. Anmol Publications Pvt. Ltd
7. Genetics By P S Verma and V K Agarwal. S Chand & Company Pvt. Ltd. New Delhi
8. Principles of Genetics By Edmund W Sinnott, L C Dunn and T Dobzhanksy. Tata McGraw Hill Publishing Company, NewDelhi
9. Genetics By Monroe W Strickberger. Prentice Hall of India Pvt. Ltd, New Delhi

Fourth Semester B.Sc. (Zoology)

Paper Code: ZOODSCP 4.1 **Paper Title:** Practicals-4
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours:45 **Credits :**1

Genetics and Evolutionary Biology

1. Study of Mendelian Inheritance and gene interactions (Non-Mendelian Inheritance) using suitable examples.
2. Study of Linkage, recombination
3. Study of Human Karyotypes (normal and abnormal)
4. Study of fossil (Use models and pictures)
5. Study of homology and analogy from suitable specimens /pictures
6. a) Evolution of horse with diagrams and b) Darwin's Finches with diagrams / cut outs of beaks of different species
7. Preparation of salivary gland chromosomes
8. Compulsory visit and submission of report

SUGGESTED READINGS

1. Snustad, D.P., Simmons, M.J. (2009). *Principles of Genetics*. V Edition. John Wiley and Sons
2. Klug, W.S., Cummings, M.R., Spencer, C.A. (2012). *Concepts of Genetics*. X Edition. Benjamin Cummings.
3. Russell, P. J. (2009). *Genetics- A Molecular Approach.* III Edition. Benjamin Cummings.
4. Griffiths, A.J.F., Wessler, S.R., Lewontin, R.C. and Carroll, S.B. *Introduction to Genetic Analysis*. IX Edition. W. H. Freeman and Co.
5. Ridley, M. (2004). *Evolution*. III Edition. Blackwell Publishing
6. Barton, N. H., Briggs, D. E. G., Eisen, J. A., Goldstein, D. B. and Patel, N. H.(2007)
7. *Evolution*. Cold Spring, Harbour Laboratory Press.
8. Hall, B. K. and Hallgrimsson, B. *Evolution*. IV Edition. Jones and Bartlett Publishers
9. Douglas, J. Futuyma (1997). *Evolutionary Biology*. Sinauer Associates.

Fourth Semester B.Sc. (Zoology) Skill Enhancement Course

Paper Code: ZOOSEC 4.2 **Paper Title**: Aquarium fish keeping
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours:30 **Credits:** 2

UNIT – 1 **15 Hours**

Introduction to Aquarium Fish Keeping: The potential scope of Aquarium Fish Industry as a Cottage Industry, Exotic and Endemic species of Aquarium Fishes

Biology of Aquarium Fishes: Common characters and sexual dimorphism of Fresh water and Marine Aquarium fishes such as Guppy, Molly, Sword tail, Gold fish, Angel fish, Blue morph, Anemone fish and Butterfly fish

Food and feeding of Aquarium fishes: Use of live fish feed organisms. Preparation and composition of formulated fish feeds

UNIT – 2

Fish Transportation: Live fish transport - Fish handling, packing and forwarding techniques.

Maintenance of Aquarium: General Aquarium maintenance – budget for setting up an Aquarium Fish Farm as a, Cottage Industry

Aquarium design, Construction and preparation: size, shape, substrate, ornamental aquatic plants. Construction and functions of Bio-filters; aerators – accessories for fish tanks and maintenance of water quality: controlling ammonia build up, pH

SUGGESTED READINGS

1. Baradach, JE, JH Ryther and WO Mc Larney (1972). Aquaculture. The Farming and Husbandry of Freshwater and Marine Organisms. Wiley Interscience, New York.

2. Jameson, J.D. and R. Santhanam (1996). Manual of ornamental fisheries and farming technology. Fisheries College and Research Institute, Thoothukudi.

3. Mitchell Beazley, 1998. The complete guide to tropical aquarium fish care. Read and Consumes Book Ltd., London.

4. Jameson, J.D. Alangara Meen Valarpu (in Tamil). National Book House, New Delhi.
5. Mill Dick, 1993: Aquarium fish, DK Publ. Co, Inc. New York –USA

Fifth Semester B.Sc. (Zoology)

Paper Code: ZOODSET 5.1 **Paper Title:** Applied Zoology & Ethology
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

UNIT – 1 **15 Hours**

Vermitechnology: Species of Earthworms used in vermitechnology, Vermiculture technique and importance of vermiculture Brief account of Vermicompost, vermiwash and vermicast
Aquaculture: *Prawn fisheries*: Species of prawns, culture of freshwater and marine prawns, preservation and processing of prawns
***Pearl culture*:** Pearl producing molluscans, pearl formation, pearl producing sites in India. Quality and composition of pearl industry: Artificial insertion of nucleus
***Pisciculture*:** Brief technique of fish culture, Composite fish culture, Preservation of fishes and their by-products

UNIT - 2 **15 Hours**

Animal husbandry: *Poultry*: Breeds of fowl, diseases of poultry, maintenance of poultry farm, Backyard and Cage system of rearing Composition of egg and nutritive value of egg
***Dairy technology*:** Cattle and Buffalo breeds (both exotic and indigenous), Diseases of cattle and buffaloes. Products and byproducts. Composition of milk and nutritive value of cow milk
Parasites: Life history of Entamoeba, Plasmodium, Trypanosoma, Ascaris, Wuchereria
Insects of economic importance: Economic importance of Honey bees & silkworms

UNIT – 3 **15 Hours**

Introduction to Host-parasite Relationship: Host, Definitive host, Intermediate host, Parasitism, Symbiosis, Commensalism
Epidemiology of Diseases: Transmission, Prevention and control of diseases: Tuberculosis, typhoid
Lac culture: Classification and life history of Lac insect (Techardia lacca). Host plants, cultivation of Lac, composition, properties and economic importance

UNIT – 4 **15 Hours**

Ethology: Introduction, scope, contributions of Lorenz, Tinbergen and Karl Von Frisch
Types of animal behaviour: (1) Innate Behaviour: Taxes, Reflexes, Instincts and Motivation. (2) Learned Behaviour: Habituation, Imprinting, Conditioned, Reflexes and Insight learning (3) Social behaviour: Types of animal society and colony in Honey Bees and Monkey troops (4) Territoriality & Courtship Behaviour in Scorpion, Stickle Back Fish and Peacock (5) Study of nesting behavior and mimicry in animal (6) Biological clock, Circadian rhythm and Chronobiology
***Animal communication*:** Chemical, Visual and Audio. Functions of Signals odors, sounds and light
Parental care: Concepts, Parental care in Fishes, Amphibians and Birds

Fifth Semester B.Sc. (Zoology)

Paper Code: ZOODSEP 5.1 **Paper Title:** Practicals-5
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours:45 **Credits :**1

1. Study of Plasmodium, Entamoeba, Trypanosoma, Ancylostoma and Wuchereria and their life stages through permanent slides / photomicrographs or specimens
2. Study of arthropod vectors associated with human diseases: Culex, Anopheles, Aedes
3. Study of poultry breeds
4. Study of different species of earthworms, prawns, pearls, fishes
5. Study of Cattle and buffalo breeds
6. Visit to poultry farm or animal breeding center. Submission of visit report

SUGGESTED READINGS

1. Park, K. (2007). Preventive and Social Medicine. XVI Edition. B.B Publishers
2. Arora, D. R and Arora, B. (2001). Medical Parasitology. II Edition. CBS Publications and Distributors
3. Kumar and Corton. Pathological Basis of Diseases
4. Atwal, A.S. (1986). Agricultural Pests of India and South East Asia, Kalyani Publishers
5. Dennis, H. (2009). Agricultural Entomology. Timber Press
6. Hafez, E. S. E. (1962). Reproduction in Farm Animals. Lea & Fabiger Publisher
7. Dunham R.A. (2004). Aquaculture and Fisheries Biotechnology Genetic Approaches. CABI publications, U.K
8. Pedigo, L.P. (2002). Entomology and Pest Management, Prentice Hall.

Fifth Semester B.Sc. (Zoology)

Paper Code: ZOODSET 5.2A **Paper Title:** Cell Biology, Biotechnology, Biostatistics & Research Methodology

Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20

Total hours:60 **Credits :**3

UNIT – 1 **5 Hours**

Cell Biology: Ultra structure of animal cell, Cell theory & cell cycle

Ultra-Structure & function of cell organelles: Plasma membrane, Endoplasmic reticulum, Ribosome's, Golgi-complex, Lysosomes, Mitochondria and Nucleus

Chromosomes: Structure and types of chromosomes. Ultra-structure of chromosome

Cell division: Types and significance: mitosis and meiosis

UNIT – 2 **15 Hours**

Cell Biology (continued)Cellular aging and cell death: Concept of aging theories, effect of aging on cell organelles. Apoptosis, Necrosis : Definition and significance

Cancer Biology: Introduction, Characteristics of cancer cells. Carcinogens, cause & Prevention.

Biotechnology: Introduction: Sub-fields of biotechnology history of Biotechnology Scenario in India

Types of Biotechnology: Animal Biotechnology. Plant Biotechnology Microbial Biotechnology. Environmental Biotechnology Medical Biotechnology

Molecular biotechnology Genetic engineering, isolation of DNA, Gene cloning Vectors, Restriction enzymes - Polymerase Chain Reaction (PCR) DNA finger printing

UNIT – 3 **15 Hours**

Applications of Biotechnology: *Agricultural application:* Improvements in crop yield. *Industrial application:* Ethanol production, Food processing, Food fermentors and Industrial enzymes. *Environmental Applications:* Cleaning up of environmental pollutants, Bioremediation. *Medical Applications:* Gene testing, Gene therapy, Drug discovery Diagnosis of inherited disorders, personal identification.

Biostatistics: Fundamentals of Biostatistics, Preliminary Concepts. Frequency distribution. Graphical presentation of Data. Measures of Central Tendency- Mean, Median and Mode. Measures of variation. Probability. Chi-Square Test

UNIT – 4 **15 Hours**

Research Methodology

Foundations of Research: Meaning, Objectives, Motivation: Research Methods *vs* Methodology, Types of Research: Analytical *vs* Descriptive, Quantitative *vs* Qualitative, Basic *vs* Applied

Research design: Need for research design: Features of good design, Important concepts related to good design- Observation and Facts, Prediction and Explanation. Developing a research plan: Problem identification, Experimentation, Determining experimental designs

Data collection, analysis and report writing: Observation and Collection of Data, Methods of data collection. Sampling Methods, Data Processing. A brief idea of report writing. Data Presentation using digital technology

SUGGESTED READINGS

1. Julio Celis Nigel Carter Kai Simons J. Small Tony Hunter David Shotton, Cell Biology (3rd edition). Academic Press
2. Verma P.S. (Author), Agarwal (2004): Cell Biology, Genetics, Molecular Biology, Evolution & Ecology. S Chand publisher
3. N Arumugam (2014): Cell Biology & Molecular Biology. Saras publications
4. Brown, T.A. (1998). Molecular Biology Labfax II: Gene Cloning and DNA Analysis. II Edition, Academic Press, California, USA.
5. Glick, B.R. and Pasternak, J.J. (2009). Molecular Biotechnology - Principles and Applications of Recombinant DNA. IV Edition, ASM press, Washington, USA.
6. Griffiths, A.J.F., J.H. Miller, Suzuki, D.T., Lewontin, R.C. and Gelbart, W.M. (2009). An Introduction to Genetic Analysis. IX Edition. Freeman and Co., N.Y., USA.
7. Snustad, D.P. and Simmons, M.J. (2009). Principles of Genetics. V Edition, John Wiley and Sons Inc.
8. Watson, J.D., Myers, R.M., Caudy, A. and Witkowski, J.K. (2007). Recombinant DNA Genes and Genomes- A Short Course. III Edition, Freeman and Co., N.Y., USA.
9. B K Mahajan: Methods in Biostatistics for Research Workers
10. K Visweswara Rao: Biostatistics a Manual of Statistical Methods for Use in Health Nutrition and Anthropology
11. Anthony, M, Graziano, A.M. and Raulin, M.L. 2009. Research Methods: A Process of Inquiry, Allyn and Bacon.
12. Walliman, N. 2011. Research Methods- The Basics. Taylor and Francis, London, New York.
13. Wadhera, B.L.: Law Relating to Patents, Trade Marks, Copyright Designs and Geographical Indications, 2002, Universal Law publishing.
14. C.R. Kothari: Research Methodology, New Age International, 2009.
15. Coley, S.M. and Scheinberg, C.A. 1990, “Proposal writing”. Stage Publications.

Fifth Semester B.Sc. (Zoology)

Paper Code: ZOODSEP 5.2A **Paper Title:** Practicals-5A
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours:45 **Credits :**1

1) Study of permanent cytology slides of Mitosis & Meiosis
2) Study of temporary preparation of Mitotic stages from onion root tip cells
3) Study of temporary preparation of Meiotic stages from onion flower bud / Grass hopper testis.
4) Study of Paper Chromatography
5) To form frequency distribution table & draw histogram, frequency polygon & frequency curve
6) Measurement of central tendency (range, mean, mode and median)
7) Isolation of DNA / RNA
8) Make a data collection of any fauna found nearby the campus, prepare a mini-dissertation report

Fifth Semester B.Sc. (Zoology)

Paper Code: ZOOSEC 5.2B **Paper Title:** Immunology
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours: 60 **Credits :**3

Unit 1: 15 Hours

Overview of the Immune System: Introduction to basic concepts in immunology, components of immune system, principles of innate and adaptive immune system

Cells and Organs of the Immune System: Haematopoeisis, Cells of immune system and organs (primary and secondary lymphoid organs) of the immune system

Unit 2: **15 Hours**

Antigens: Basic properties of antigens, B and T cell epitopes, haptens and adjuvants

Antibodies: Structure, classes and function of antibodies, monoclonal antibodies, antigen antibody interactions as tools for research and diagnosis

Unit 3: **15 Hours**

Working of the immune system: Structure and functions of MHC, exogenous and endogenous pathways of antigen presentation and processing, Basic properties and functions of cytokines, Complement system: Components and pathways.

Unit 4: **15 Hours**

Immune system in health and disease: Gell and Coombs' classification and brief description of various types of hypersensitivities, Introduction to concepts of autoimmunity and immunodeficiency.

Vaccines: General introduction to vaccines, Various types of vaccines 015

Fifth Semester B.Sc. (Zoology)

Paper Code: ZOODSEP 5.2B **Paper Title:** Practicals-5B
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours:45 **Credits :**1

ZOODSE P52B: PRACTICAL **60 Hours**

1. Demonstration of lymphoid organs

2. Histological study of spleen, thymus and lymph nodes through slides/ photographs

3. Preparation of stained blood film to study various types of blood cells.

4. Ouchterlony's double immuno-diffusion method.

5. ABO blood group determination.

6. Cell counting and viability test from splenocytes of farm bred animals/cell lines.

7. Demonstration of a) ELISA b) Immunoelectrophoresis

SUGGESTED READINGS

1. Kindt, T. J., Goldsby, R.A., Osborne, B. A. and Kuby, J (2006). *Immunology*, VI Edition. W.H. Freeman and Company.
2. David, M., Jonathan, B., David, R. B. and Ivan R. (2006). *Immunology*, VII Edition,
3. Mosby, Elsevier Publication.
4. Abbas, K. Abul and Lechtman H. Andrew (2003.) *Cellular and Molecular Immunology*. V Edition. Saunders Publication.

Fourth Semester B.Sc. (Zoology) Skill Enhancement Course

Paper Code: ZOOSEC 5.3 **Paper Title:** Immunology
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours:30 **Credits :**2

UNIT – 1

Biology of Bees: Classification and Biology of Honey Bees, Social Organization of Bee Colony

Rearing of Bees: Artificial Bee rearing, Beehives, Selection of Bee Species for Apiculture, Bee Keeping Equipment, Methods of Extraction of Honey (Indigenous and Modern)

Significance of apiculture

UNIT – 2

Diseases and Enemies: Bee Diseases and Enemies, Control and Preventive measures

Bee Economy: Byproducts of Apiculture (Honey and Bees Wax), Apiculture industry and its Uses

Entrepreneurship in Apiculture: Bee Keeping Industry – Recent Efforts, Modern Methods in employing artificial, Beehives for cross pollination in horticultural gardens

SUGGESTED READINGS

1. Prost, P. J. *Apiculture*. Oxford and IBH, New Delhi.
2. Bisht D.S., *Apiculture*, ICAR Publication.
3. Singh S., *Beekeeping in India*, Indian council of Agricultural Research, New Delhi.

Sixth Semester B.Sc. (Zoology)

Paper Code: ZOODSET 6.1 **Paper Title:** Reproductive Biology
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

Unit 1: **15 Hours**

Reproductive Endocrinology: Gonadal hormones and mechanism of hormone action, steroids, glycoprotein hormones, and prostaglandins, hypothalamo – hypophyseal – gonadal axis, regulation of gonadotrophins, secretion in male and female; Reproductive System: Development and differentiation of gonads, genital ducts, external genitalia

Unit 2: **15 Hours**

Functional anatomy of male reproduction: Outline and histological of male reproductive system in rat and human; Testis: Cellular functions, germ cell, system cell renewal; Spermatogenesis: kinetics and hormonal regulation; Androgen synthesis and metabolism; Epididymal function and sperm maturation; Accessory glands functions; Sperm transportation in male tract

Unit 3: **15 Hours**

Functional anatomy of female reproduction: Outline and histological of female reproductive system in rat and human; Ovary: folliculogenesis, ovulation, corpus luteum formation and regression; Steroidogenesis and secretion of ovarian hormones; Reproductive cycles (rat and human) and their regulation, changes in the female tract; Ovum transport in the fallopian tubes; Sperm transport in the female tract, fertilization; Hormonal control of implantation; Hormonal regulation of gestation, pregnancy diagnosis, foeto – maternal relationship; Mechanism of parturition and its hormonal regulation; Lactation and its regulation

Unit 4: **15 Hours**

Reproductive Health: Infertility in male and female: causes, diagnosis and management; Assisted Reproductive Technology: sex selection, sperm banks, frozen embryos, in vitro fertilization, ET, EFT, IUT, ZIFT, GIFT, ICSI, PROST; Modern contraceptive technologies; Demographic terminology used in family planning

Sixth Semester B.Sc. (Zoology)

Paper Code: ZOODSEP 6.1 **Paper Title:** Practicals-6
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours: 45 **Credits :**1

1. Study of animal house: set up and maintenance of animal house, breeding techniques, care of normal and experimental animals.
2. Examination of vaginal smear rats from live animals.
3. Surgical techniques: principles of surgery in endocrinology. Ovarectomy, hysterectorny, castration and vasectomy in rats.
4. Examination of histological sections from photomicrographs/ permanent slides of rat/human: testis, epididymis and accessory glands of male reproductive systems; Sections of ovary, fallopian tube, uterus (proliferative and secretory stages), cervix and vagina.
5. Sperm count and sperm motility in rat
6. Study of modern contraceptive devices
7. Visit to animal house to study breeding techniques

SUGGESTED READINGS

1. Austin, C.R. and Short, R.V. reproduction in Mammals. Cambridge University Press.
2. Degroot, L.J. and Jameson, J.L. (eds). Endocrinology. W.B. Saunders and Company.
3. Knobil, E. et al. (eds). The Physiology of Reproduction. Raven Press Ltd.
4. Hatcher, R.A. et al. The Essentials of Contraceptive Technology. Population Information Programme.

Sixth Semester B.Sc. (Zoology)

Paper Code: ZOODSET 6.2A **Paper Title:** Ecology, Zoogeography and Wildlife Conservation

Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20

Total hours:60 **Credits :**3

UNIT-I **15Hours**

Ecology: (Part – A)

Earth as living planet, sub divisions of ecology, scope of ecology, biosphere

Abiotic factors: Lightand Temperature (effect on animals and plants)

Biotic Factor: Mutualism, commensalism, amensialism, parasitism, predation, competition and parasitism

Biogeochemical cycles: Principles and concepts of water, nitrogen, carbon, oxygen cycles

Community ecology: Community structure, ecological niches, edge effect, stratification, ecotone

UNIT-II **15 Hours**

Ecology: (Part – B)

Habitats: *Freshwater* habitat Lotic and Lentic systems. *Zonation of Sea*, Marine Biota, *Esturine* ecology, *Mangrooves*. *Terrestrial* habitat: A brief account of Biomes. Ecological Adaptations of Freshwater, Marine and Terrestrial fauna. Ecological Adaptations of Freshwater, Marine and Terrestrial animals

Population ecology: Density, natality, mortality, age distribution, population growth, types and curves

UNIT-III **15 hours**

Zoogeography: Zoogeographical realms of world, a brief account of Wallace's line, means of dispersal, factors affecting the dispersal of animals, continental drift theory, types of distribution of animals, island life, insular fauna, new world marsupials

UNIT-IV **15 hours**

Wildlife and its Conservation: Wildlife conservation methods, Wildlife in India, Causes for the depletion of wildlife, Wildlife conservation techniques, methods and measures. Brief account of: IUCN, WWF, Bombay Natural History Society, Indian Board for Wild Life, Red Data Book. Wild Life Act 1972 and its amendments in India, CITES. Project Tiger and Biosphere Reserve. Management of protect areas, Conservation of wetlands, Wildlife ecotourism

Suggested readings

	Title of the Book	Author (s)	Publisher(s)
1	Ecology	Mohan P Arora	Himalaya Publishing House, Mumbai
2	Ecology	Eugene P Odum	Oxford and IBH Publishing Co. New Delhi
3	Concepts of Ecology	R L Kotpal and N P Bali	Vishal Publishing Co. Jalandhar City
4	Concepts of Ecology	N Arumugam	Saras Publications, Nagercoil, Tamilnadu
5	Ecology and environment	P D Sharma	Rastogi publications, Meerut
6	Fundamentals of Environmental Biology	S Arora	Kalyani Publishers, New Delhi
7	Essentials of Ecology and Environmental Science	S V S Rana	PHI Learning Private Ltd. Delhi
8	Elements of Animal Ecology and Zoogeography	R Nagabhushanam	Emkay Publications, Delhi
9	Basics of Ecology	Nirmal Chandra Pradhan	Anmol Publications Pvt. Ltd, New Delhi
10	Fundamentals of Ecology	M C Dash	Tata Mc Graw Hill New Delhi
11	Concepts of Ecology	Edward J Kormonty	Pearson - Prentice Hall - Dorling, Kindorsley (India) Pvt. Ltd,Licencees in South Asia
12	Evolution: Process and Product	Edwrad O Dodson	Reiuhold Publishing Corporation, New York
13	Evolution	Ruth Moore	Time Incorported, New York
14	The origin of species by means of natural selection	Charles Darwin	Surjeet Publications, Delhi
15	Principles of organic evolution	T S Gopalkrishnari, Itta Sambasivaiah and A P Kamalakar Rao	Himalaya Publishing House, Mumbai
16	Introduction to Evolution	Paul Amos Moody	Kalyani Publishers, New Delhi
17	Environmental Economics: A text book	M Karpagam	Sterling Publishers Pvt. Ltd, New Delhi
18	A text book of Environmental Chemistry	A K de	Wiley Eastern Limited New Delhi
19	Wildlife wealth in India (Resources and Management)	Majupuria Trilok Chandra	Teepress Service, L.P Bangkok, Thailand

Fifth Semester B.Sc. (Zoology)

Paper Code: ZOODSEP 6.2A **Paper Title:** Practicals-6A
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours:45 **Credits :**1

1. Study of threatened animals of India (Tiger, Lion, Single horned Rhinoceros, Musk deer, Gaur, Golden Langur, Lion tailed monkey)
2. Estimation of CO_2 from different water samples
3. Estimation of dissolved oxygen from different water samples
4. Estimation of total hardness
5. Study of Ecological Adaptations and Morphological peculiarities: Examples" Hermit crab, Draco, Stick insect, Puffer fish, Exocetus, Phrynosoma, Chameleon and Bat.
6. Marking of existing Project tiger areas and Biosphere reserves in Indian map
7. Spotting of the endangered animals conserved in protected areas of Karnataka state (using Karnataka map)
8. Marking of National parks in Karnataka map
9. Marking of Wildlife sanctuaries in Karnataka map
10. Visit to nearby locality or forest to study the ecosystem

Sixth Semester B.Sc. (Zoology)

Paper Code: ZOODSET 6.2B **Paper Title:** Insect, Vectors and Diseases
Teaching Hours: 4 H / Week **Marks:** Th-80+IA-20
Total hours:60 **Credits :**3

Unit I: **Hours 15**

Introduction to Insects: General Features of Insects, Morphological features, Head – Eyes, Types of antennae, Mouth parts w.r.t. feeding habits

Concept of Vectors: Brief introduction of Carrier and Vectors (mechanical and biological vector), Reservoirs, Host-vector relationship, Vectorial capacity, Adaptations as vectors, Host Specificity

Unit II: **Hours 15**

Insects as Vectors: Classification of insects up to orders, detailed features of orders with insects as vectors – Diptera, Siphonaptera, Siphunculata, Hemiptera

Dipteran as Disease Vectors : Dipterans as important insect vectors – Mosquitoes, Sand fly, Houseflies; Study of mosquito-borne diseases – Malaria, Dengue, Chikungunya, Viral encephalitis, Filariasis; Control of mosquitoes Study of sand fly-borne diseases – Visceral Leishmaniasis, Cutaneous Leishmaniasis, Phlebotomus fever; Control of Sand fly Study of house fly as important mechanical vector, Myiasis, Control of house fly

Unit III: **Hours 15**

Siphonaptera as Disease Vectors: Fleas as important insect vectors; Host-specificity, Study of Flea-borne diseases – Plague, Typhus fever; Control of fleas

Siphunculata as Disease Vectors: Human louse (Head, Body and Pubic louse) as important insect vectors; Study of louse-borne diseases –Typhus fever, Relapsing fever, Trench fever, Vagabond's disease, Phthiriasis; Control of human louse

Unit VI: **Hours 15**

Hempitera as Disease Vectors

Bugs as insect vectors; Blood-sucking bugs; Chagas disease, Bed bugs as

mechanical vectors, Control and prevention measures

Sixth Semester B.Sc. (Zoology)

Paper Code: ZOODSEP 6.2B **Paper Title:** Practicals-6B
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours: 45 **Credits:** 1

1. Study of different kinds of mouth parts of insects

2. Study of following insect vectors through permanent slides/ photographs: *Aedes, Culex, Anopheles, Pediculus humanus capitis, Pediculus humanus corporis, Phithirus pubis, Xenopsylla cheopis, Cimex lectularius, Phlebotomus argentipes, Musca domestica,* through permanent slides/ Photographs
3. Study of different diseases transmitted by above insect vectors

Submission of a project report on any one of the insect vectors and disease transmitted

SUGGESTED READINGS

1. Imms, A.D. (1977). *A General Text Book of Entomology*. Chapman & Hall, UK
2. Chapman, R.F. (1998). *The Insects: Structure and Function.* IV Edition, Cambridge University Press, UK
3. Pedigo L.P. (2002). *Entomology and Pest Management.* Prentice Hall Publication
4. Mathews, G. (2011). *Integrated Vector Management: Controlling Vectors of Malaria and Other Insect Vector Borne Diseases*. Wiley-Blackwell

Sixth Semester B.Sc. (Zoology) Skill Enhancement Course

Paper Code: ZOOSEC 6.3 **Paper Title:** SERICULTURE
Teaching Hours: 3 H / Week **Marks:** Th-40+IA-10
Total hours: 30 **Credits :**2

UNIT – 1 **Hours 15**

Introduction: Sericulture: Introduction and present status, Types of silkworms, Distribution and Races, Mulberry and non-mulberry Sericulture

Biology of Silkworm: Life cycle of *Bombyx mori,* Structure of silk gland and secretion of silk

Rearing of Silkworms and reeling of silk: *PART A*: Selection of mulberry variety and establishment of mulberry garden, Rearing house and rearing appliances. Disinfectants: Formalin, bleaching powder

UNIT – 2

Rearing of Silkworms and reeling of silk: *PART B*: Silkworm rearing technology: Early age and Late age rearing Types of mountages, Spinning, harvesting and storage of cocoons. Silkworm reeling techniques

Pests and Diseases: Pests of silkworm: Uzi fly and dermestid beetles, Pathogenesis of silkworm diseases: Protozoan, viral, fungal and bacterial, Control and prevention of pests and diseases

Entrepreneurship in Sericulture: Prospectus of Sericulture in India: Sericulture industry in different states, employment opportunities. Visit to various sericulture centres.

SUGGESTED READINGS

1. Handbook of Practical Sericulture: S.R. Ullal and M.N. Narasimhanna CSB, Bangalore
2. Appropriate Sericultural Techniques; Ed. M. S. Jolly, Director, CSR & TI, Mysore.
3. Handbook of Silkworm Rearing: Agriculture and Technical Manual-1, Fuzi Pub. Co. Ltd., Tokyo, Japan
4. Manual of Silkworm Egg Production; M. N. Narasimhanna, CSB, Bangalore
5. Silkworm Rearing; Wupang—Chun and Chen Da-Chung, Pub. By FAO, Rome
6. A Guide for Bivoltine Sericulture; K. Sengupta, Director, CSR & TI, Mysore
7. Improved Method of Rearing Young age silkworm; S. Krishnaswamy, reprinted CSB, Bangalore

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