YEAR – I		CODE:19AEC101
SEMESTER – I	ENGLISH COMMUNICATION*	Hours: 1
PART – IV	For all I Year UG Courses	
ABILITY ENHANCEMENT	From Batch 2019	Cuadit. 1
COURSE		Credit: 1
(AEC)		

Objectives:

- 1. To develop the communication ability of the students with focus on 'Speaking Skill' enabling them to use the language more effectively and confidently
- 2. To widen the student's grasp of vocabulary and enable them to use these words in appropriate contexts.

Course Outcomes:

At the end of the course students exhibit

- CO 1 Ability to start a conversation, interrogate, apologise or request appropriately in various context.
- CO 2 Ability to read and interpret, converse over telephone.
- CO 3 Display use of rich vocabulary and coin words.
- **CO 4 Develop oratorical skills**
- CO 5 Decode the patterns of language behavior to describe, narrate or summarise a paragraph.

	a paragrapin													
SEMESTE	R –I	COURS	E CO	DE:	TITLE	OF THE	PAPER	R : Engli	sh		HOI	JR:1		CREDIT:1
		19AE	C101	<u> </u>	Comn	nunicat	ion							
COURSE PROGRAMME						PROGRAMME SPECIFIC OUTCOMES (PSO)								MEAN
OUTCOM	1ES	OUTCO	OMES(PO)									SCORE OF	
														CO'S
Со	Po1	Po2	Ро	Ро	Ро	PSo	PSo	PSo	PSo	PSo	PSo	PSo	PSo	Mean
			3	4	5	1	2	3	4	5	6	7	8	score
Co1	5	5	4	1	5	5	5	5	5	4	5	5	5	4.5
Co2	5	5	4	1	5	5	5	2	2	2	4	4	5	3.7
Co3	5	5	3	1	5	5	5	4	4	4	5	5	5	4.3
Co4	5	5	5	1	5	5	5	4	4	4	5	5	5	4.4
Co5	5	5	5	1	5	5 5 5 2 2 2 4 4 4							3.7	
	Mean Overall Score												4.1	

This Course is having **VERY HIGH association** with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

UNIT – I: SPOKEN SKILL (Introducing Patterns and Dialogues)

- 1. Inviting someone
- 2. Expressing Gratitude
- 3. Complimenting and Congratulating
- 4. Starting a conversation with a stranger.
- 5. Asking for help
- 6. Framing Questions and Answers
- 7. Apologising
- 8. Making Request

UNIT - II: ORAL PRACTICE

- 1. Audio Video lessons
- 2. Telephonic communication / Business
- 3. Conversational skill
- 4. Reading Practice

UNIT - III WORD PLAYS

- 1. Building powerful vocabulary
- 2. Coining related words
- 3. Acronym
- 4. Mispronounced words

UNIT - IV ORATORIAL SKILLS

- 1. Extempore
- 2. Elocution

UNIT – V PORTRAYAL SKILLS

- 1. Description
- 2. Narration
- 3. Paragraph Writing

Text Books and Reference:

- **1.** Pillai, Radhakrishna.G, *Spoken English for you*. Madras: Emerald Academic Press, 1994.
- **2.** Aitchison, James. *Cassell's Dictionary of English Grammar*. London: Cassell & Co. 1996.

- 3. Allen, Robert. How to Write Better English. London: Penguin, 2005.
- **4.** Larson, Carl E., and Frank MJ LaFasto. *Teamwork: What must go right/what can go wrong*. Vol. 10. Sage, 1989
- **5.** Green, David. *Contemporary English Grammar: Structures and Composition.* Chennai: Macmillan Publishers India Pvt. Ltd., 2010

Question Pattern

19AEC101 Practical – Internal (100Marks)

The LSRW skills and Grammar are tested and awarded marks.

YEAR – I									
SEMESTER – II									
PART – IV									
ABILITY ENHANCEMENT									
COURSE (AEC)									

For all I Year UG Courses From Batch 2019

CODE:19AEC202
Hours: 1
Credit: 1

Objectives:

- 1. To focus on the integral acquisition of language skills through the designed activities and exercises
- 2. To help them decode the patterns of language behavior.

Course Outcomes:

At the end of the course students exhibit

- CO 1 Ability to interact within a group
- CO 2 Display argumentative skill
- CO 3 Skill to review book/film
- CO 4 Skill for making speeches in public
- CO 5 Skills to narrate multifarious experience.

SEMESTER		COU	RSE CO	ODE:			TITLE	OF THE	PAPE	R : Engl	ish		HOUR:1	CREDIT:1
II		19AEC202					Communication							
COURSE OUTCOMES			GRAN			PROGRAMME SPECIFIC OUTCOMES (PSO)							D)	MEAN SCORE OF CO'S
СО	PO	PO	PO	PO	PO	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO8	MEAN
	1	2	3	4	5	1	2	3	4	5	6	7		SCORE
CO1	5	5	4	4	5	5	5	5	3	5	5	5	3	4.5
CO2	5	5	4	5	5	5	5	5	4	5	5	3	4	4.6
CO3	5	5	4	5	5	5	5	5	3	4	5	4	5	4.6
CO4	4	5	5	5	5	4	5	5	4	5	5	5	3	4.6
CO5	5	5	5	5	4	5 5 5 3 4 5 5 3								4.5
					Me	an Ove	rall Sco	re						4.5

The value shows that the course has **VERY HIGH association** with programme outcomes and programme specific outcomes

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

UNIT – I GROUP ACTIVITY

- 1. Spell bee
- 2. Story telling
- 3. Quiz game

UNIT – II TALK TOGETHER

- 1. Seminar
- 2. Debate
- 3. Group Discussion

UNIT - III REVIEWING SKILLS

- 1. Book Review
- 2. Film Review

UNIT - IV PUBLIC SPEAKING

- 1. Speech on Current Events
- 2. Welcome Address
- 3. Vote of Thanks
- 4. Report Writing

UNIT - V SITUATIONAL ADDRESSING

- 1. Narrating Dreams
- 2. Narrating Ambition

Text Books and Reference:

- 1. Adair, John. Effective Communication. London: Pan Macmillan Ltd., 2003.
- 2. Hasson, Gill. Brilliant Communication Skills. Great Britain: Pearson Education, 2012.
- 3. Pillai, Radhakrishna.G, *Spoken English for you*. Madras: Emerald Academic Press, 1994.
- 4. Cragan, John, and David W. Wright, and Chris Kasch. *Communication in Small Groups: Theory, process, and skills*. Cengage Learning, 2008.
- 5. MacInnis, J. L. (2006). *The elements of great public speaking: How to be calm, confident, and compelling.* Berkeley, CA: Ten Speed Press
- 6. Allen, Robert. How to Write Better English. London: Penguin, 2005. Print.

Question Pattern

19AEC202
Practical – Internal (100Marks)

The LSRW skills and Grammar are tested and awarded marks.

YEAR – II	BRITISH PROSE From Batch 2019	Code: 19EN408 Fourth Revision
SEMESTER – IV	*New Question Pattern From	Hours: 6
CORE PAPER- VIII	2019	Credit: 5

Objectives

- 1. To introduce students to the possibilities of different prose styles from Renaissance to Modern Age.
- 2. To enable students appreciate the harmony of prose.
- 3. To introduce students to the style and content of some major prose writers.
- 4. To teach students the various sentence structures in English.

Course Outcomes:

CO1: Turn into skilled, knowledgeable and ethical interpreters of literary texts in English by nurturing their ability to understand prose.

CO2: Learn the psycho-social aspects and discern the various cultural and Moral values associated with the texts.

CO3: Represent their experience and ideas critically and creatively.

CO4: Develop a deeper appreciation of cultural diversity.

CO5: Develop their own creativity and enhance their writing skills.

SEMESTER IV	COURSE CODE: 19EN408						TITLE OF THE PAPER : British Prose HO						URS:6	CREDIT:5
COURSE OUTCOMES	PROG	RAMI	ME OU	тсом	ES(PO))	PROGRAMME SPECIFIC OUTCOMES (PSO)							MEAN SCORE OF CO'S
Со	Po1	Po2	Po3	Po4	Po5	PSo1	Fo1 PS02 PS03 PS04 PS05 PS06 PS07 PS08						PSo8	Mean score
Co1	5	5	5	4	5	5	5	5	4	5	5	4	5	4.7
Co2	5	5	5	5	5	5	5	5	4	5	5	5	5	4.9
Co3	5	5	5	4	4	5	4	5	5	5	5	4	4	4.6
Co4	5	5	4	5	5	5	5	5	5	5	4	5	5	4.8
Co5	5 5 5 4 5 5 5 5 5 5										4.8			
					Mea	n Over	all Scor	е						4.7

This Course is having **VERY HIGH association** with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit – I (Detailed) [15 HRS]

1. Francis Bacon : Of Studies

2. Charles Lamb : A Dissertation upon Roast Pig

Unit – II (Detailed) [15 HRS]

1. Stephen Leacock : My Lost Dollar

2. Sir Ernest Barker : On Parents and Children

Unit – III (Detailed) [15 HRS]

1. Robert Lynd : The Unexpected

2. C.E.M Joad : A Dialogue on Civilization

Unit – IV (Non-Detailed) [15 HRS]

1. Somerset Maugham : Mr. Know - All

2. G.K. Chesterton : What I found in my Pocket

3. Oliver Goldsmith : The Man in Black

Unit – V (Non-Detailed) [15 HRS]

1. E.M. Forster : Tolerance

2. Virginia Woolf : Profession For Women3. John Boynton Priestly : All About Ourselves

Text:

- 1. Rajiv Beri. Selected prose for degree classes. Chennai: Macmillian, 1999.
- 2. Robb, Cuthbert, W. A Representative Anthology. Chennai: Blackie Books, 2003
- 3. Perspectives: **An Anthology of Modern prose.** Chennai: Anu chitra publications, 1985.
- 4. Spectrum **An Anthology of Modern prose.** Chennai: Anu chitra publications, 1988.
- 5. Sriraman.T.ed College Prose, Macmillian, Madras, 1995.
- 6. Sivadasan, C.P.: Modern Prose for Colleges
- 7. V.A.Shahane. Mosaic: Modern English Prose Macmillian India Press, 1982.
- 8. Kurup, Keshava, P.N and Ardhanareeawaran B. New Patterns of Contemporary Prose Macmillian India Ltd, 1978.
- 9. Prasad, Birjadish. A Background to the Study of Literature. Chennai: Macmillan Indian Press, 2007.
- 10. Robb, Cuthbert, W. A Representative Anthology. Chennai: Blackie Books, 2003.

Reference:

Roble, W.O. : A Representative Anthology, OUP
 Jogadisam,S : Avenues of English Prose, Longman.
 N Mukerjee : The Gift of Language, S. Chand & Co.,

Question Paper Pattern (From Batch 2019) CORE PAPER VIII-BRITISH PROSE

Semester IV Code: 19EN408

Section-A

I. Five Annotations (only from detailed texts)/ Five Short Answers (covering all units) (No choice) 10x2 = 20

Section-B

II Paragraph (150 Words) 5x5 = 25 (Either or type)

Section-C

III Essays (300 Words) 3x10 = 30 (Answer 3 out of 5)

NOTE: Questions must be taken covering all units in all the three sections

YEAR – III	BRITISH FICTION From Batch 2019	Code: 19EN509 Third Revision*
SEMESTER – V	*New Question Pattern From	Hours: 5
CORE PAPER – IX	2019	Credit: 4

Objectives

- 1. To make students be aware of the social problems from the themes of the novels in English.
- 2. To train students in the simple literary discipline of sustained reading in prose writing.
- 3. To make students be aware of the social problems from the themes of the novels in English.
- 4. To train students in the simple literary discipline of sustained reading in prose writing.

Course Outcomes:

CO1: Identify representative works in the field of novels.

CO2: Experienced in art, life, sex and morality of modern people.

CO3: knowledge pertaining to think and write creatively.

CO4: Analyse and understand the fictional writings.

CO5: Analyse novels based on their structure and meaning as a modern reader.

SEMESTER			URSE						PER : B			1	JRS:5	CREDIT:4
v		1	19EN	509										
COURSE OUTCOMES							PROGRAMME SPECIFIC OUTCOMES (PSO)							
СО	РО	РО	РО	РО	РО	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO	MEAN
	1	2	3	4	5	1	2	3	4	5	6	7	8	SCORE
CO1	5	5	5	4	5	5	5	5	4	5	5	4	5	4.7
CO2	5	5	5	5	5	5	5	5	4	5	5	5	5	4.9
CO3	5	5	5	4	4	5	4	5	5	5	5	4	4	4.6
CO4	5	5	4	5	5	5	5	5	5	5	4	5	5	4.8
CO5	5	5	5	4	5	5	5 5 4 5 5 5 5 5							4.8
					Me	an Ove	rall Sco	re						4.7

This Course is having **VERY HIGH association** with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I [18 HRS]

1. Jane Austen : Pride and Prejudice

Unit II [18 HRS]

2. Charles Dickens : A Tale of Two Cities

Unit III [18 HRS]

H.G. Wells : The Invisible Man

Unit IV [18 HRS]

George Orwell : Animal Farm

Unit V [18 HRS]

Graham Greene : The Power and the Glory

Text:

1. Pride and Prejudice, Jane Austen UBSPD, New Delhi – 1994

2. Charles Dickens A Tale of Two Cities UBSPD, New Delhi

3. The Invisible man H.G. Wells, Rupa Classics, New Delhi.

4. The Animal Farm George Orwell, OUP, London.

5. The Power and the Glory Graham Greene, OUP, London.

Reference

Hubsdaum, Phillip : A Reader's Guide to Charles Dickens
 Guerad, Albert (ed) : Hardy, A Collection of Critical Essays

3. Muir, Edwin : Structure of the English Novel

4. Lubbock, Percy : The Craft of Fiction5. Forster, E.M. : Aspects of the Novel

Question Paper Pattern (From Batch 2019) CORE PAPER - IX -BRITISH FICTION

Semester V Code: 19EN509

Section-A

I. Short Questions 10x2 = 20

(No Choice)

Section-B

II Paragraph (150 Words) 5x5 = 25

(Either or type)

Section-C

III Essays (300 Words) 3x10 = 30

(Answer 3 out of 5)

NOTE: Questions must be taken covering all units in all the three sections

YEAR – II
SEMESTER III
Inter-Disciplinary Course
(IDC)

ENGLISH FOR COMPETITIVE EXAMINATIONS Offered to BBA (CA) Department

CODE: 19GBB31 Hours: 5

Credit: 4

Objectives

- 1. To enrich the students in English Competitive Examinations.
- 2. To create an awareness on Bank Examinations.
- 3. To stabilize the career with banking skills.

Course Outcome:

- CO 1 creative thinking, decision making, communication, and understanding of operations and change
- CO2 verbal ability and quantitative ability
- CO3 individual presentations and interview skills
- CO4 The skills and self-confidence to assist in effective career
- CO5 professional life to work as a business manager and entrepreneur.

SEMESTER	-111	_	OURS CODE:		Т	TITLE OF THE PAPER : English for HOURS:5 Competitive Examinations							5	CREDIT:4		
COURSE OUTCOME	S	PRO OUTC	GRAN OMES			PRO	GRAM	ME SPI	CIFIC C	OUTCOI	MES (P	SO)		MEAN SCORE OF CO'S		
СО	Ро	Ро	Ро	Ро	Ро	PSo	PSo	PSo	PSo	PSo	PSo	PSo	PSo	Mean		
	1	2	3	4	5	1	2	3	4	5	6	7	8	score		
CO1	5	4	4	5	5	4	5	5	5	4	5	4	5	4.6		
CO2	5	4	3	5	4	3	4	5	4	5	5	3	5	4.2		
CO3	5	5	4	3	3	4	3	4	5	5	5	3	5	4.1		
CO4	5	5	4	4	5	5	5	3	5	4	4	5	5	4.5		
CO5	5	5	4	5	3	3 4 4 5 4 5 5 4 5						4.4				
	Mean Overall Score									4.3						

This Course is having **HIGH association** with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit – I Knowledge [15 HRS] 1. Parts of Speech 2. Sentence Structure 3. Answering a Passage 4. Fill In the Blanks (American Words, Grammar, Homophones) Unit - II Understanding [15 HRS] 1. Error Spot 2. Odd One Out 3. Phrase Replacement 4. Sentence Connector Unit - III Skill/ Ability [15 HRS] 1. Cloze Test 2. Sentence Rearrangement 3. Double Filters 4. Reading Comprehension Unit – IV [15 HRS] Writing 1. Word Association 2. One Word Substitution 3. Verbal Ability 4. Writing Skill with Expressions. **Unit – V** Creative Technique [15 HRS] 1. Multiple Meaning 2. Miscellaneous 3. Sentence Improvement 4. Mock Interview **Text & Reference** 1. R.S.Agarwal, *Objective English*. Chennai.

2. Lewis, Norman. Word Power Made Easy.

3. S.P.Bakshi and Richa Sharma. Descriptive General English.

Question Paper Pattern (From batch 2019) Semester – III

IDC – ENGLISH FOUNDATIONAL COURSE FOR BANK EXAMINATIONS Offered to BBA (CA) Department

CODE: 19GBB31

OBJECTIVE TYPE

Section-A

I. Reading (Knowledge, Understanding, Ability) 80x½=40 (Answer **ALL**)

Section-B

II. Skill Based (Writing, Creative Technique) 70x½=35 (Answer **ALL**)

Total Objective Questions 150

NOTE: Questions must be taken covering all units.

YEAR – II	
SEMESTER IV	
Inter-Disciplinary Cour	se
(IDC)	

FOR BANK EXAMINATIONS Offered to B.Com (BM) Department

	CODE:19GBM42
	Hours: 5
<u>-</u>	Credit: 4

Objectives

- 1. To enrich the students in English Competitive Examinations.
- 2. To create an awareness on Bank Examinations.
- 3. To stabilize the career with banking skills.

Course Outcome:

At the end of the course Students should exhibit

- CO 1 creative thinking, decision making, communication, and understanding of operations and change
- CO2 verbal ability and quantitative ability
- CO3 individual presentations and interview skills
- CO4 The skills and self-confidence to assist in effective career
- CO5 professional life to work as a business manager and entrepreneur.

SEMESTER	IESTER -IV COURSE TITLE OF THE PAPER: English CODE: Foundational Course for Bank Examinations						Foundational Course for Bank						5	CREDIT:4
COURSE OUTCOMES	S	PRO OUTC	GRAM OMES			sc							MEAN SCORE OF CO'S	
СО	Ро	Ро	Ро	Ро	Ро	PSo	PSo	PSo	PSo	PSo	PSo	PSo	PSo	Mean
	1	2	3	4	5	1	2	3	4	5	6	7	8	score
CO1	5	4	4	5	5	4	5	5	5	4	5	4	5	4.6
CO2	5	4	3	5	4	3	4	5	4	5	5	3	5	4.2
CO3	5	5	4	3	3	4	3	4	5	5	5	3	5	4.1
CO4	5	5	4	4	5	5	5	3	5	4	4	5	5	4.5
CO5	5	5	4	5	3	3 4 4 5 4 5 5 4 5						4.4		
					Me	an Ove	rall Sco	re						4.3

This Course is having **HIGH association** with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
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Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit – I Knowledge

[15 HRS]

- 1. Parts of Speech
- 2. Sentence Structure
- 3. Answering a Passage
- 4. Fill In the Blanks (American Words, Grammar, Homophones)

Unit - II Understanding

[15 HRS]

- 1. Error Spot
- 2. Odd One Out
- 3. Phrase Replacement
- 4. Sentence Connector

Unit - III Skill/ Ability

[15 HRS]

- 1. Cloze Test
- 2. Sentence Rearrangement
- 3. Double Filters
- 4. Reading Comprehension

Unit - IV Writing

[15 HRS]

- 1. Word Association
- 2. One Word Substitution
- 3. Verbal Ability
- 4. Writing Skill with Expressions.

Unit – V Creative Technique

[15 HRS]

- 1. Multiple Meaning
- 2. Miscellaneous
- 3. Sentence Improvement
- 4. Mock Interview

Text & Reference

- 1. R.S.Agarwal, Objective English. Chennai.
- 2. Lewis, Norman. Word Power Made Easy.

3. S.P.Bakshi and Richa Sharma. Descriptive General English.

Question Paper Pattern (From Batch 2019) Semester – IV

IDC – ENGLISH FOUNDATIONAL COURSE FOR BANK EXAMINATIONS Offered to B.Com (BM) Department

CODE: 19GBM42

OBJECTIVE TYPE

Section-A

I. Reading (Knowledge, Understanding, Ability) 80x½=40

(Answer ALL)

Section-B

II. Skill Based (Writing, Creative Technique) 70x½=35 (Answer **ALL**)

Total Objective Questions 150

NOTE: Questions must be taken covering all units.

YEAR III	Tech-Empowerment English Training	CODE:19GCA64A
SEMESTER VI	(OFFERED BY ENGLISH DEPARTMENT TO	HOURS -5
GENERIC	BCA DEPARTMENT)	
ELECTIVE(GE)	FROM BATCH 2019	CREDIT -4

Objectives:

- 1. To enrich the students in English Competitive Examinations.
- 2. To create an awareness on TOEFL/IELTS Examinations.
- 3. To stabilize the career with Computer-English skills.

Course Outcomes:

At the end of the course students

- CO 1 Develop their intellectual, personal and professional abilities
- CO 2 Acquire basic language skills (listening, speaking, reading and writing) in order to communicate with speakers of English language
- CO 3 Comprehend the main ideas of texts or paragraphs, and guessing vocabulary from context.
- CO 4 Acquire professional skills integrating three basic skills, research, information technology and critical thinking

CO 5 Gain Knowledge about the career goals and background.

SEMESTE		COU	RSE C	ODE:			TITLE	OF THE	PAPE	R : Tecl	1	HOL	JRS:5	CREDIT	
R VI		19	GCA6	4A		Eı	Empowerment English Training							S:4	
COURSE	SE PROGRAMME														
OUTCOM	COM OUTCOMES(PO)					ı	PROGRAMME SPECIFIC OUTCOMES (PSO)								
ES														OF CO'S	
СО	PO	PO	PO	PO	PO	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO	Mean	
	1	2	3	4	5	1	2	3	4	5	6	7	8	score	
CO1	5	5	4	4	5	5	5	5	3	5	5	5	3	4.5	
CO2	5	5	4	5	5	5	5	5	4	5	5	5	5	4.7	
CO3	5	5	4	5	5	5	5	5	3	5	5	5	5	4.7	
CO4	5	5	5	5	5	5	5	5	3	5	5	5	3	4.7	
CO5	5	5	5	5	5	5	5 5 5 4 5 5 5 3							4.8	
	Mean Overall Score											4.7			

The value shows that the course has **VERY HIGH association** with programme outcomes and programme specific outcomes

Associatio	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
n					
Scale	1	2	3	4	5
Interval	0<=rating<=	1.1<=rating<=	2.1<=rating<=	3.1<=rating<=	4.1<=rating<=
	1	2	3	4	5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit – I Practical Knowledge

- 1. Building Vocabulary
- 2. Parts of Speech
- 3. Sentence Formation
- 4. Phonetic Sounds

Unit – II Understanding

- 1. Listen and Repeat
- 2. Situational Writing
- 3. British / American English
 - -Introduction
 - -Its Use
 - -Difference

Unit – III Developing Ability (Practical-Lab)

- 1. Reading Comprehension
- 2. Listening Comprehension
- 3. American English & British English Conversation

Unit – IV Practical Development

- 1. Situational Speaking
- 2. Public Speaking
- 3. Debate
- 4. Group Discussion

Unit - V Career Skill

- 1. Book Review
- 2. Interview Skills
- 3. Mock Interview

Note:

Units I, II, IV& V are practised in class. Unit III is engaged in Lab.

Text Book:

1. Green, David. *Contemporary English Grammar: Structures and Composition.* Chennai: Macmillan Publishers India Pvt. Ltd., 2010.

Reference Book:

2. Balasubramanian, T.: A Text book of English Phonetics for Indian Students (Macmillan)

Tech-Empowerment English Training (OFFERED BY ENGLISH DEPARTMENT TO BCA DEPARTMENT)

Semester VI

19GCA64A

Question Pattern

Question Pattern From 2021

Total Marks-75

Section-A (No choice) (20x1=20)

Objective Type (Units 1 & 2)

Section-B (No choice) (5X2=10)

Short Answers (Units 3, 4 & 5)

Section-C (Either or type) (3x10=30)

Essay Type (Units 3, 4 & 5)

Section- D (3 out of 5) (3x5=15)

Paragraph Type (Units 3, 4 & 5)

YEAR III	An Advanced Course in	CODE:19GCA64B
SEMESTER VI	Communication Skills and Media	HOURS -5
	Awareness	
GENERIC ELECTIVE	(OFFERED BY ENGLISH DEPARTMENT	CREDIT -4
(GE)	TO BCA DEPARTMENT)	
	FROM BATCH 2019	
	(NOT-PRESCRIBED)	

Objectives:

- 1. It focuses particularly on the skills in spoken and written communication in English in order to enhance their employment opportunities.
- 2. Prepares students for job applications and interviews.
- 3. Train students to make effective presentations.

Course Outcomes:

- **CO1** Demonstrate a basic understanding of communication
- CO 2 Identify and analyze basic theories of communication
- CO 3 Explore the impact of social media on people's relationships, especially the family, gender, intimate relationships and friendships.
- CO 4 Consider the current state of the 'digital divide' and how social media relates to the Social problems.

CO 5 Examine other possible welfare benefits

SEMESTER						HOURS:6	CREDITS:4							
VI		19	GCA64	₽B		in	Comm	unicati	ion Skil	Is and I	Media			
							Awareness							
COURSE		PRO	GRAN	IME			PROG	RAMM	E SPEC	IFIC OU	TCOM	ES (PSC	0)	MEAN
OUTCOMES		OUT	OMES	(PO)										SCORE OF
														co's
СО	РО	РО	РО	РО	РО	PSO	PSO	PSO	PSO	PSO	PSO	PSO	PSO8	MEAN
	1	2	3	4	5	1	2	3	4	5	6	7		SCORE
CO1	5	5	4	4	5	5	5	5	3	5	5	5	3	4.5
CO2	5	5	4	5	5	5	5	5	4	5	5	3	4	4.6
CO3	5	5	4	5	5	5	5	5	3	4	5	4	5	4.6
CO4	4	5	5	5	5	4	5	5	4	5	5	5	3	4.6
CO5	5	5	5	5	4	5	5 5 5 3 4 5 5 3			4.5				
Mean Overall Score							4.5							

The value shows that the course has VERY HIGH association with programme outcomes and programme specific outcomes

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit - I Practical Communication Skills:

- 1. E-Mail
- 2. Presentation Skills
- 3. Curriculum Vitae and Cover Letters
- 4. Facing an Interview
- 5. Report Writing
- 6. Persuasion Skills
- 7. Idioms in Use

Unit – II Media Awareness:

- 1. Kinds of News
- 2. Who and Which News get Prominence?
- 3. Who Controls the News?
- 4. Types of Radio Programmes
- 5. Types of Television Programmes
- 6. Elements of Advertising
- 7. New Media The Internet

Unit - III The Film Medium:

- 1. Birth of Cinema
- 2. Evolution of Cinema silent to sound Era
- 3. Techniques and trends in film making across the over 100 year existence

Unit - IV The Traditional Media

- 1. Introduction to the Traditional means of communication and their influence on our cultural consumption patterns.
- 2. Oral and folk traditions media forms with reference to India and Tamilnadu.

Unit – V The New Media

- 1. The Emergence of newer media of communication in the global village and the internet.
- 2. E-Mail and mobile telephony as media of cultural and socio political communication.
- 3. Cross cultural communication with technology.

Methodology:

Theoretical inputs through classroom lectures, visits to media organizations, seminars and interaction with practicing media persons.

Text book and References:

- 1. Prakash. C.L.N. An Advanced course in communication skills and Media Awareness, Cambridge University Press India Pvt.Ltd, New Delhi, 2007.
- 2. George Gerbner et al. The Global media Debate: Its Rise, Fall and Renewal. Norwood, Nj:Ablex 1991.
- 3. Richard Vincent et al. Towards Global equity in communication: MacBride Update Cresskill, NJ, Hampton Press, 1999.
- 4. Stephens, Mitchell, A History of the news. NEWYORK, Viking Press, 1988.
- 5. Fidler Roger, Mediamophosis, Understanding New Media. Thousand Oaks, Pine Forge Press,1977.

UG I YEAR	தமிழக வரலாறும் பண்பாடும் முதலாம் ஆண்டு	19ATA101
SEMESTER – I	(B.A., Tamil)	HRS/WEEK – 7
Allied – I		CREDIT – 5

தமிழக வரலாறும் பண்பாடும்

டாக்டர் கே.கே. பிள்ளை உலகத் தமிழாராய்ச்சி நிறுவனம் தரமணி, சென்னை 600 113.

அலகு 1 – தமிழக வரலாற்றுக்கான அடிப்படை ஆதாரங்கள – தமிழகத்தின் இயற்கை அமைப்புகள் - வரலாற்றுக் காலத்துக்கு முந்திய தமிழகம்

அலகு 2 - சிந்துவெளி அகழ்வாராய்ச்சி பண்டைய தமிழரின் அயல்நாட்டுத் தொடர்கள்

அலகு 3 - தமிழ் வளர்ந்த சங்கம் - சங்க இலக்கியம்

அலகு 4 - பண்டைத் தமிழரின் வாழ்க்கை

அலகு 5 - களப்பிராகள் - பல்லவாகள் - தமிழகத்தின் நான்காம் நூற்றாண்டு முதல் ஒன்பதால் நூற்றாண்டு வரையில் சமூகநிலை.

பார்வை நூல்கள்: 1) வே.தி. செல்வம், தமிழக வரலாறும் பண்பாடும்,

மணிவாசகர் பதிப்பகம், சென்னை -108.

2) டாக்டர் அ.தட்சிணாமூர்த்தி, தமிழர் நாகரிக**மு**ம் பண்பாடும், யாழ் வெளியீடு, மேற்கு அண்ணா நகர், சென்னை — 4.

UG I YEAR	தமிழக வரலாறும் பண்பாடும் முதலாம் ஆண்டு	19ATA202
SEMESTER – II	(B.A., Tamil)	HRS/WEEK – 7
Allied –II		CREDIT – 5

தமிழக வரலாறும் பண்பாடும்

தமிழக வரலாறும் மக்கள் பண்பாடும் டாக்டர் கே.கே. பிள்ளை உலகத் தமிழாராய்ச்சி நிறுவனம் தரமணி, சென்னை 600 113.

அலகு 1 : சோழப் பேரரசின் தோற்றம் - சோழப் பேரரசின் வளர்ச்சியும்

வீழ்ச்சியும் - சோழா் காலத்தில் தமிழாின் சமுதாயம்

அலகு 2 : பாண்டியரின் ஏற்றமும் வீழ்ச்சியும் மதுரை நாயக்கர்கள்

அலகு 3 : தமிழகத்தில் 13 முதல் 18 ஆம் நூற்றாண்டு வரை சமூக

நிலை

அலகு 4 : ஐரோப்பியர் வரவு — பத்தொன்பதாம் நூற்றாண்டின்

அரசியலும் தமிழகத்தின் சமூகநிலையும்

அலகு 5 : இருபதாம் நூற்றாண்டில் தமிழகம்

பார்வை நூல்கள்: 1) வே.தி. செல்வம், தமிழக வரலாறும் பண்பாடும்,

மணிவாசகர் பதிப்பகம், சென்னை -108

2)டாக்டர் அ.தட்சிணாமூர்த்தி, தமிழர் நாகரிகமும் பண்பாடும், யாழ் வெளியீடு, மேற்கு அண்ணா நகர், சென்னை — 4.

UG I YEAR	இக்கால இலக்கியம்	19TA101
	முதலாம் ஆண்டு	
SEMESTER – I	(B.A., Tamil)	HRS/WEEK – 6
Main – I		CREDIT – 5

அலகு 1 கவிதை

- 1. **பாரதியார்** பெண் விடுதலைப் பாடல்கள், புதுமைப்பெண், பெண்மை வாழ்க, பெண் விடுதலைக்கும்மி, கண்ணன்பாட்டு (சொழன, தாய், தந்தை, சேவகன், காளி சுட்டும் வழிச்சுடர்தான்)
- 2. **பாரதிதாசன்** சஞ்சீவி பா்வதத்தின் சாரல்
- 3. **அறிவுமத**ி நட்புக்காலம்,

அறிவுமதி சாரல்,

189, அபுபில்லா சாலை,

தியாகராய நகர், சென்னை – 600007.

அலகு 2 உரைநடை

உதிர்ந்த மலர்கள் - உ.வே.சா

உரைநடைத் தொகுப்பு நியூ செஞ்சுரி புக் ஹவுஸ்

அலகு 3 சிறுகதை

ஜெயகாந்தன் சிறுகதைகள் - அக்கினிப் பிரவேசம், குருபீடம்,

அக்ரஹாரத்துப் பூனை, சிலுவை, புதுச் செருப்புக் கடிக்கும், ஜெயகாந்தன்

சிறுகதைகள், நேஷனல் புக் டிரஸ்ட் இந்தியா.

அலகு 4 நாவல்

கருப்பின் குரல் - சா.கந்தசாமி

அன்னம்

எண்.1, நிர்மா நகர், தஞ்சாவூர் 613007.

அலகு 5 நாடகம்

கௌதம் புத்தா் - முனைவா் கு.வெ.பாலசுப்பிரமணியம் அய்யா நிலையம், தஞ்சாவூா் - 613006.

UG I YEAR	சிற்றிலக்கியம்	19TA203
SEMESTER – II	முதலாம் ஆண்டு (B.A., Tamil)	HRS/WEEK – 6
Main- I		CREDIT – 5

அலகு 1 : உலா — அடைக்கல நாயகி உலா (வீரமாமுனிவர்)

அலகு 2 : தூது நெஞ்சுவிடு தூது —உமாபதி சிவாசாரியார்

அலகு 3 : குறவஞ்சி – திருக்குற்றாலக் குறவஞ்சி

அலகு 4 : பாமாலை – சகலகலாவல்லி மாலை (குமரகுருபரர்)

அலகு 5 : பிள்ளைத்தமிழ் - மீனாட்சியம்மை பிள்ளைத்தமிழ் (பருவத்துக்கு

முதல் 5 பாடல்கள்)

ALL UG I YEAR		EPDT 201T
SEMESTER - II	Dynamics of Personality	HRS/WEEK - 3
PAPER – IV		CREDIT - 2

Unit-I

Personality-meaning-Definition-Determinants of personality-Genetic Determinants-Social Determinants-cultural Determinants- Psychological Determinants-Development of personality -Need for personality development-Guidelines to improve personality.

Unit-II

Theories of personality-Freudian theory-Jung's analytical psychology-Defense Mechanism-Displacement-Repression-Projection-Reaction formation-fixation and Regression-The dynamics of personality.

Unit-III

Stress –Concept of stress-Stressful situations and life transition-Stress arousing events-Personal Crisis-Bereavement and grief- Stress coping skills-Assessing stress-social support.

Unit-IV

Mental Health-Concept-Definition-Factors that influence mental health-Significance of youth period-Specific mental health problems of rural youth.

Unit-V

Personality -Approaches and personality assessment-Uses of personality assessment-Projective techniques-Rorschach inkblot test-Thematic apperception test (TAT)

Reference books

- Wittig,A.E.and Williams G III.Psychology-An introduction.NewDelhi.McGraw Hill Book Co (international student edition) 1984.
- Baron, R.A,Byrne, D and Kantowitz,B.H.Psychology,understanding human Behaviour.NY.Holt,Rinehart and Winston,1980
- De fruyt, f. [2001].personality and individual difference.
- Hall, C.S., &Lindzey, G.theories of personality
- Halle, larry.A&Ziegler Daniel.1981.personality theories,New Delhi ;mc craw hill ltd.
- Alwin, N.2008 working with people with a diagnosis of personality disorder. Clinical psychology, London
- Davey,2008 clinical psychology,London:Hodder HE

UG I YEAR	நன்னூல் - எழுத்ததிகாரம் முதலாம் ஆண்டு	TA102
	முதலாம ஆண்டு	
SEMESTER – I	(B.A., Tamil)	HRS/WEEK – 6
Main – II		CREDIT – 5

அலகு 1. எழுத்தியல்

அலகு 2. பதவியல்

அலகு 3. உயிரீற்றுப் புணரியல்

அலகு 4. மெய்யீற்றுப் புணரியல்

அலகு 5. உருபு புணரியல்

UG I YEAR	நன்னூல்- சொல்லதிகாரம்	TA204
SEMESTER – II	முதலாம் ஆண்டு (B.A., Tamil)	HRS/WEEK – 6
Main- II		CREDIT – 5

அலகு 1. பெயரியல்

அலகு 2. ഖിതെബിധல്

அலகு 3. பொதுவியல்

அலகு 4. இடையியல்

அலகு 5. உரியியல்

ALL UG I YEAR		VET101
SEMESTER – I	VALUE EDUCATION	HRS/WEEK - 3
PAPER – IV		CREDIT - 2

Unit-I

Values-Definition- Concept -Sources of values-Characteristics of values-Classification of values-Importance of value education-Erosion of values-Political erosion-social erosion-economic erosion.

Unit-II

Learning-Pavlov and classical conditioning-operant conditioning-learning by insight —the modeling process and transmission of response information-kind of modeling-observational learning.

Unit-III

Memory-concept-information processing approach-sensory information stageshort term memory-memory categories-measuring memory-memory spantotal learning method.

Unit-IV

Emotion-concept of emotions-displacement-positive emotions-theories of emotion-the james-lange theory of emotion-cannon-bard theory of emotion-the facial feedback theory-Averill's social theory.

Unit-V

Intelligence-major intelligence test-binet-Simon test-Wechsler's test-theories of intelligence-spearman's two factor theory-Sternberg's triarchic theory of intelligence-determinants of intelligence.

Reference books

- Parameswaran, E.G. and Beena, C.Invitation to psychology. New Delhi, Tata McGraw-Hill Publishing co Ltd.1988.
- Baron, R.A,Byrne, D and Kantowitz,B.H.Psychology,understanding human Behaviour.NY.Holt,Rinehart and Winston,1980.
- Davey, Appliedpsychology, British Psychological society, Blackwell publishing Ltd.2011
- Alwin, N.2008 working with people with a diagnosis of personality disorder. Clinical psychology, London
- Davey,2008 clinical psychology, London:Hodder HE
- American psychiatric association 2000 Diagnosis and statistical manual of mental disorder,4thEdn.,text Revision,VA:American psychiatric press

Year	-	III
B.A., HIS	TO	RY
Semeste	er	- V

Core: XII

History of Europe -I(From 1453 A.D. to 1789 A.D.)

CODE: 19HI509 Hours: 6

Credit: 5

Objectives

1: To enable the students to understand the European History right from Voyages on Geographical Discoveries.

- 2: To provide an opportunity to know off the thoughts and works of European Philosophers and their efforts to get rid of the domination of Latin and promotion of their mother tongue.
- 3: To know about the contribution of Martin Luther and Ignatius Loyola in the Spread of Christianity throughout the world.

Course Outcome (CO)

- **CO1:** Know about the onset of a Modern Thought Process in Europe through the Speeches and Writings of European Philosophers.
- **CO2:** Clearly know about the active participation of German Protestant Leaders towards Reformation in Christian Religion.
- **CO3:** Visualize on the Rise and fall of Great Dynasties and on the Era of Enlightened Despots in Europe.
- **CO4:** Grasp on the emergence of nascent form of democratic institutions in Europe, replacing the autocratic rule.

SEMESTER V		SE COI 1509	DE:			COURSE TITLE: History of Europe – I (FROM 1453 A.D TO 1789A.D)				HOURS:6	
COURSE OUTCOME (COs)	PROGRAMME OUTCOMES (POs)					PROGRAMME SPECIFIC OUTCOMES (PSOs)					CREDIT:5
СО	P01	PO2	P03	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	MEAN SCORE OF CO'S
CO1	3	3	2	3	3	2	2	3	2	3	2.60
CO2	2	3	3	2	2	3	3	2	3	3	2.60
CO3	2	3	3	3	1	2	3	3	3	2	2.50
CO4	3	3	2	2	3	3	3	2	3	3	2.70
	MEAN OVERALL SCORE									2.55	

Result: The score of this course is 2.55 (Moderate)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **Moderate** association with Programme Outcome and Programme Specific Outcome.

Unit - I

Introduction – Europe at the close of the Middle Ages – Voyages and Discoveries- Renaissance

Unit - II

Reformation – Martin Luther – Calvin – Counter Reformation – Ignatius Loyola

Unit-III

Charles V and Germany, Phillip II of Spain – Armada – Decline of Spain

Franceunder Henry IV – Richelieu – Foreign Policy – War of Spanish succession Peace of Utrecht.

Unit - IV

Rise and Decline of Sweden – Gustavus Adolphus – Charles IX – Thirty Years War - Peace of West Phalia. Rise of Russia – Peter The Great – His Character and Policy – Catharine the Great - Partition of Poland.

Unit - V

Age of Enlightened Despots – Rise of Prussia – Frederick the Great – Maria Teresa - France-Louis XIV - War of Austrian succession – Seven Years War – The Anglo – French Colonial Rivalry – Joseph II of Austria.

TEXT BOOKS:

- 1. B.V.Rao., History of Europe (1452-1850), New Delhi: Sterling Publishers Pvt.Ltd, 2018
- B.V.Rao., World History from early Times to AD 2000,
 New Delhi: New Dawn Press, 2006
- 3. Arun Bhattacharjee, *A History of Europe* (1453 1789) New Delhi: Sterling Publishers PrivateLtd,1981.
- 4. VasudevaRao T.N., *History of Europe* (1453-1789). (Tamil), Chennai: Tamilnadu TEXT BOOKS Society, 1974.
- 5. Alalasundaram, *History of Europe* (Tamil) (1453-1815), Pondicherry: Podhigai Publisher, 1972.-

REFERENCE BOOKS:

- Merry E. Wiesner Hanks, Early Modern Europe 1450-1789, Cambridge:
 Cambridge University Press, 2013.
- 2. South Gate., *A TEXT BOOKS of Modern European History*, London: OUP. 1985.
- 3. Grant A.J., Europe: *The Story of the Last Five Centuries*. London: Long Mans, 1983.

- 4. Hayes., *Political and Social History of Europe*, New York: Macmillan, 1916.
- 5. M.Arokiyasamy, *History of Europe* (Tamil) (1450-1970), Chennai: Tamilnadu TEXT BOOKS Society, 1979.

Year - III B.A., HISTORY	History of Europe II (FROM 1789 A.D TO	Code : 19HI614
Semester - VI	1945 A.D)	Hours: 6
Core : XV		Credit: 5

Objectives

1: To provide an exposure to the students of various ideologies that emanated to rule the state, the tussle to expand and colonize Asian and African Countries. 2: To let the students understand significant political developments in Europe by

19th and 20th Centuries.

3:To make the students aware on the ravages and implication of Two World Wars.

Course Outcome (CO)

CO1: Understand about the Age of Revolution and impacts in Europe

CO2: Know about the Unification process which emanated by 19thcentury in European countries and on the Industrial Progress

CO3: Visualize on the Age of Enlightment in France, Italy, Russia, Austria and Hungary.

CO4: Clearly know about the World Wars, Inter war developments and emergence of Global Institutions such as League of Nations and UNO to ensure peace.

SEMESTER VI	COURSE CODE: 19HI614					COURSE TITLE: History of Europe II (FROM1789 A.D TO 1945 A.D)					HOURS:6
COURSE OUTCOME (COs)	PROGRAMME OUTCOMES (POs)					PROGRAMME SPECIFIC OUTCOMES (PSOs)					CREDIT:5
СО	P01	P02	P03	P04	P05	PSO1	PSO2	PSO3	PSO4	PSO5	MEAN SCORE OF CO'S
CO1	3	3	2	3	3	2	2	3	2	3	2.60
CO2	2	1	3	2	2	3	3	3	3	3	2.50
CO3	3	3	3	2	1	3	2	3	3	2	2.50
CO4	3	3	1	2	3	3	2	3	3	3	2.60
MEAN OVERALL SCORE										2.55	

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%
Scale	1	2	3	4	
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=r
Rating	Very Poor	Poor	Moderate	High	Ver

This Course is having **Moderate** association with Programme Outcome and Programme Specific Outcome.

Unit-I: Age of Revolution

Background of the French Revolution - Causes of the French Revolution - Results of the French Revolution - Rise of Napoleon - Achievements and Failure of Napoleon.

Unit-II: Age of Unification

Vienna and other Congresses - Revolutions of 1830 and 1848 - Unifications of Italy and Germany and their Emergence as strong powers - Industrial Progress.

Unit-III: Age of Enlightment

The Third French Republic - Problems and Achievements - Colonial expansion by Great Britain, France, Germany, Italy and Russia -Assertion of National States - Dual Monarchy in Austria-Hungary - Problems and Achievements.

Unit-IV:Developments in Russia 1870 - 1905

Internal problems and Revolutions 1870 - 1905 - The Bolshevik Revolution of 1917 - Internal Reconstruction and the New Economic Policy - The Eastern Questions.

Unit -V: World War I and II

Origin of World War I - Progress and Peace Treaties - Inter War Period - Nazism - Germany - Hitler - Fascism - Italy - Mussolini - Origin of World War II - Progress and Peace Treaties - U.N.O.

TEXT BOOKS:

- 1. B.V.Rao, Modern Europe (1789-2013), New Delhi: Sterling Publishers Pvt.Ltd.,2015
- 2. Grant, A.J., and Temperley, *Europe in the 19th and 20th Centuries 1789 1950*, London: Orient Longman Pvt.Ltd., 1977.
- 3. Mahajan, V.D., *History of Modem Europe since 1789,* New Delhi: S.Chand& Co... 1970.
- 4. Fyffe, C.A., A *History of Modern Europe (1792-1878)*, London: Orient Longman Pvt. Ltd., 1960. 5. Southgate, G.W., A *Shorter European History 1756-1945*, London: OUP,1944.

REFERENCE BOOKS:

- 1. Norman Davies, Europe: A History, New York: Oxford University Press, 1996
- 2. Jhon Merriman, A History of Modern Europe, Vol.2, NewYork: Norton, 1996
- 3. Deborin, G., *The Second World War,* Moscow: Progress Publishers, 1968.
- 4. Fisher, H.A.L., *History of Europe,* London: Oxford University Press, 1936.
- 5. Taylor, A.J.P., *The Struggle for Mastery of Europe 1848-1918*, Oxford: The Clarendon Press, 1960.

III –B.A (HISTORY)	PROJECT	19JHI601
SEMESTER -VI		HRS/WK-6
PROJECT		CREDIT-4

COURSE OBJECTIVES:

- To create an understanding on the past and recent trends in the historical views.
- To analyze the social and cultural changes in India and other than India.
- To promote the creativity and innovation in the field of historical studies.
- To encourage the students with the practical knowledge in the particular selected field of project and to develop their skill.

COURSE OUTCOMES:

Upon successful completion of this project, students will be able to:

- Students will be able to understand the primary sources and secondary sources for the purpose of historical writing.
- To know the meaning of research and to understand the historical research methods through historiography.

COURSE CONTENT:

1. Projects process / Introduction

- Selection of project topics.
- Preparation of project work.
- Overview of project.

2. Project Design

- Collecting primary and secondary sources.
- Descriptive and interpretative methods.
- Analytical and synthetic operations.
- Web sources.

3. Collection of Data

- 1. Statistical tools
- 2. Interview methods
- 3. Questionnaire in methods
- 4. Computer application in historical research

4. Documentation and Report Writing

Arrangements of contents.

- 1. Title Page
- 2. Bonafide Certificate
- 3. Acknowledgement
- 4. Table of contents
- 5. Abstract
- 6. Chapters of the Report
- 7. References
- 8. Appendices, if any

Appendices should be named as APPENDIX –A

5. Page Numbering

All Page numbers should be typed without punctuation on the bottom center portion of the page. The Preliminary pages (table of contents and abstract) should be numbered in lowercase roman literals.

6. Margin Specification

Top : 4 cms
Bottom : 3 cms
Left : 4.5 cms
Top : 2.5 cms

7. Binding Specification

- Report should be found using flexible cover of thick white art paper.
- The Spine for the bound volume should be 2cms width.
- The Cover should be printed in block letters.

8. Viva-Voce examination / Presentation

- Preparing for the project presentation
- Effective communication of project work
- Handling questions and feedback during the defense

9. Project structuring

- 1. Preparation of outline
- 2. Hypothesis
- 3. Documentation procedure
- 4. Footnes & end notes
- 5. References
- 6. Bibliography
- 7. Appendix
- 8. Tables & charts
- 9. Index
- 10. Glossary
- 11. Preface
- 12. Conclusion

YEAR – III	MECHANICS	17EMT512
SEMESTER -V	For the students admitted from the year 2017	Hrs. / Week: 6
ELECTIVE-I		Credit: 5

OBJECTIVES:

The course aims to introduce the concept of type of forces, magnitude and direction, kinematics, projectiles, central orbital, momentum of inertia.

COURSE OUTCOMES:

At the end of the course students will be able to

CO1: Analyze and solve problems of types of forces and resultant of the force.

CO2: Knowledge pertaining to kinematics and work, power, energy and Simple Harmonic mean.

CO3: Analyze and solving problems using projectiles.

CO4: Knowledge pertaining to solve problems using central orbit.

CO5: Analyze and solving problems about momentum of inertia.

SEMESTER	CC	COURSE CODE						C	JO:	JRS	E T	ITI	E:			HOURS	CREDITS
V		17E	MT	512					M	ECI	IAI	VIC:	S			6	5
	PROGRAMME OUTCOMES(PO)					PROGRAMME SPECIFIC OUTCOMES(PSO)									CORE OF		
COURSE OUTCOMES	P O 1	P O 2	P O 3	P O 4	P O 5	P S O	P S O 2	P S O 3	P S O 4	P S O 5	P S O 6	P S O 7	P S O 8	P S O 9	PS O 10		
CO1	4	4	3	5	4	3	4	4	3	4	3	5	4	3	4	3	3.8
CO2	4	3	4	5	4	3	3	4	3	4	3	5	4	3	4	3	3.7
CO3	3	4	3	5	4	3	4	4	3	4	3	4	5	3	4	3	3.7
CO4	4	4	3	5	5	3	4	4	3	4	3	4	5	4	5	4	4.0
CO5	5	3	3	4	3	4	3	4	4	4	5	3	3.9				
Mean Overall Score										•			3	3.8			

Result: The Score of this Course is 3.8 (High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **HIGH** association with Programme Outcomes and Programme Specific Outcomes.

UNIT-I FORCE:

Types of Forces- Magnitude and direction of the resultant of the force acting on a particle – Triangle law of Force –Lami's Theorem.

UNIT-II KINEMATICS:

.Kinematics of a particle- Velocity-Accelaration-Relative Velocity-Relative Acceleration-Angular Velocity and Acceleration Components in Co-planar motion along

- [a] Two fixed perpendicular directions,
- [b] Tangential and Normal Directions,
- [c] Radial and Transverse directions(in polar co-ordinates).

Work, Power, Energy, Principle of Work and Energy.Rectilinear motion with uniform acceleration. Simple Harmonic Motion

UNIT-III PROJECTILES

Motion of the Projectile, nature of Trajectory, Result Pertaining to the motion of the projectile, range on an inclined plane.

UNIT-IV CENTRAL ORBIT

Central Forces and Central Orbit, Equation of Central orbit, Finding Law of Force and Speed of a given orbit, finding the orbit given the Law of Force.

UNIT-V MOMENTUM OF INERTIA

Momentum of Inertia of Simple Body, Theorems of Parallel and Perpendicular Axis, Momentum of Inertia Triangular Lamina, Circular Lamina, Circular Ring, Right Circular Cone, Sphere.(Solid and Hollow)

TEXT BOOK:

1. P.Duraipandian, Lakshmi Duraipandian and MuthamizhJayapragasam [2012] "Mechanics", Revised Edition, S.Chand & Co, New Delhi.

Unit-I: Chapter-2 & 3 (sec: 2.1-2.2), and 3.2-3.4

Unit-II: Chapter-1 (Sec: 1.4-1.4.1), Chapter 11(sec 11.1-11.3) Chapter- 12(12.1-12.1.2)

Unit-III: Chapter-13 (Sec: 13.1,13.1-13.1.3,4-6,13.2,13.2.1),

Unit-IV:Chapter-16 (Sec:16.1,16.2,16.2.1,16.2.2,16.2.3,16.3),

Unit-V:Chapter-17 (Sec:17.1-17.1.1).

REFERENCE BOOKS:

- 1. A.V.Dharmapadam [1991], "Mechanics", S. Viswanathan and Co. Chennai.
- 2. S.L.Loney [1982], "Elements of Dynamics", Macmillan India, Delhi.
- 3. M.K. Venkataraman [1990], "Dynamics", Agasthier Book Depot, Trichy-1.
- 4. P.N.Chatterjee[1992], "Dynamics", ARajhans Publication, (19th Ed).
- 5. Joseph F.Shelley [2005], "Vector Mechanics for Engineers Vol-I: Dynamics", Tata McGraw Hill Edition, New Delhi.

YEAR – I		19AMCS22
SEMESTER – II	ALLIED MATHEMATICS – II	HRS/WK – 8
ALLIED – II	For the students admitted from the year 2019	CREDIT – 6

(For B.Sc. Computer Science)

OBJECTIVES

This subject covers the topics Laplace Transform, Vector differentiation & Integration, Finite Differences, to explore the fundamental concepts of Mathematics.

COURSE OUTCOME:

At the end of the course students will be able to

CO1: Find the solution using dominance property.

CO2: Find Perfect job allocation using Assignment Problem & Transportation Problem.

CO3: Apply properties of Laplace Transform

CO4: Compute scalar and vector product, gradient and curl of functions.

CO5: Find interpolating data using Lagrange and Newton's formula

	SEMESTER COURSE TITLE OF THE PAPER:															HOURS	CREDITS	
									_							_		
II		CO	DE:				P	ALLIE	EDM	ATHE	EMAT	TICS -	·II			6	4	
	19	9AN	1CS2	22														
	PI	ROC	GRA.	AM PROGRAMME SPECIFIC OUTC								TCON	AES(I	PSO)		MEAN SCORE OF		
COURSE		M	ſΕ													CC)'S	
OUTCOMES	O	UTO	COM	ΙE														
		S (PO)															
	P	P	P	P	P	PS	PS	PS	PS	PS	PS	PS	PS	PS	PS			
	О	Ο	O	О	O	O1	O2	O3	O4	O5	O6	O7	O8	O9	Ο			
	1	2	3	4	5										10			
CO1	3	4	4	3	3	3	5	4	2	4	4	4	3	2	4	3.4	47	
CO2	3	4	4	3	3	3	5	4	2	4	4	4	3	2	4	3.4	47	
CO3	3	4	4	3	3	3	5	5	2	4	4	4	3	2	4	3.	.5	
CO4	3	4	4	3	3	3	5	4	2	4	4	4	3	2	4	3.4	47	
CO5	3	4	4	3	3	3	5	5	2	4	4	5	3	2	4	3.	.6	
Mean Overall Score											3.5							

This Course is having **HIGH** association with Programme Outcomes and Programme Specific Outcomes.

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

UNIT-I: GAME THEORY

Two Person Zero Sum Game-Basic Terms-Maximum and Minimum Principal-Games without Saddle points –Mixed Strategies-Graphical Solution of 2Xn and mX2 games-Dominance Property.

UNIT-II:TRANSPORTATION PROBLEM AND ASSIGNMENT MODEL:

Definitions of the transportation model - Formulation and solution of transportation models - North-west corner rule - Least cost method - Vogel's approximation method. Definition of Assignment Model- Formulation and Solution of Assignment Model-Special Cases in Assignment Model

UNIT-III: LAPLACE TRANSFORM:

Laplace Transform of Standard functions and Properties- Inverse Laplace Transform.

UNIT-IV: VECTOR DIFFERENTIATION

Scalar point functions-Vector point functions-Gradient-Divergence-Curl-Directional Derivatives-Unit to normal to a surface.

UNIT-V: FINITE DIFFERENCES

Operator E, Relation between $^{\Delta,\nabla}$ and E – Interpolation – Newton – Gregory forward & backward formulae for interpolation-Lagrange's interpolation formula for unequal intervals (without proof).

TEXT BOOKS:

- 1. Dr.S.JVenkatesan (2018) "Operation Research" Sri Krishna Publication
- 2. P. Duraipandian and S. Udayabaskaran (1997), "Allied Mathematics", Vol I & II. Chennai.Muhil Publishers.

Unit-I : Chapter 9: Page: 9.1-9.9, 9.19-9.28

Unit-II : Chapter 4: Page 4.1-4.28

Unit-III : Section (7.1.1-7.1.4, 7.2, 7.2.1, 7.2.2, 7.2.3),

Unit-IV : Section (8.1,8.1.1,8.2,8.3,8.3.1,8.3.2,8.4,8.4.1,8.4.2,8.4.3,8.4.4),

Unit-V : Section (5.1, 5.2)

Reference Books:

1. P. R. Vittal (2003), "Allied Mathematics", Chennai: Marghan Publications.

ST. JOSEPH'S COLLEGE OF ARTS & SCIENCE (AUTONOMOUS) **CUDDALORE-1**



PG & RESEARCH DEPARTMENT OF PHYSICS

B.Sc (Physics)

SYLLABUS 2019-2020

PG and Research Department of Physics B.Sc Physics Curriculum Template

Sem	Par t	Subject Code	Subject Title	Hrs	Cr I
	Ш	19PH101	Core Paper – I: Properties of matter	4	3
	Ш	19PH102	Core Paper – II: Mechanics	4	3
	Ш	19PH203	Core Paper – III : Thermal Physics	4	3
	Ш	19PH204	Core Paper – IV: Waves and Oscillations	4	3
	Ш	19PH305	Core Paper – V: Electricity and Magnetism	4	3
	Ш	19PH306	Core Paper – VI:Basic Electronics	4	3
	Ш	19PH407	Core Paper – VII: Atomic Physics	4	3
	Ш	19PH408	Core Paper – VIII: Applied Electronics	4	3
	Ш	19PH509	Core Paper – IX: Optics & Spectroscopy	5	5
	Ш	19PH510	Core Paper – X: Solid state Physics	5	5
	III	19EPH51A 19EPH51B	Elective 1A: Digital Electronics Elective 1B: Numerical Methods & basic computer programming	5	4
V	III	19EPH52A 19EPH52B	Elective 2C: Geophysics Elective 2D: Fibre Optic Communication	5	4
		19SPH51	Skill development course- Electrical Wiring\$	4	2
		19SSPH52	SSC ## (optional) Everyday Physics		2 *
			Total	30	
	III	19PH611	Core Paper – XI: Relativity, Quantum Mechanics & Mathematical methods	5	5
VI	III	19PH612	Core Paper – XII: Nuclear & Radiation Physics	5	5
VI	III	19EPH63A 19EPH63B	Elective 3E: Astrophysics Elective 3F: Energy Physics	5	4
	IV	19SPH61	Skill development Course- Computer Literacy ^{\$}	4	2

YEAR- I	C	ourse			C	ourse T	itle:			HRS/W	K	CREDIT			
SEM- I	C	Code:		PR	OPER'	TIES O	F MAT	TER		4		3			
	191	PH101													
Course Ou	tcome	S							1						
CO1	To st	udy the	basics	of ela	sticity	and its i	mportan	ce in be	ams						
CO2	To st	udy the	twisti	ng cou	ple and	l rigidity	modulı	ıs							
CO3	Unde	rstandi	ng the	basic o	concept	of benc	ding of b	eams							
CO4	Unde	rstand	the bas	sics of	surface	tension	and its	applicat	ions						
CO5	To st	study the basics of viscosity and its applications													
	Ī	Mapping of course outcomes with the program specific outcomes													
Course	Prog	gramn	ne Out	comes	POs	Pro	ogramm	e Speci	fic Outc	omes PS	SOs	Mean			
Outcomes												Score of			
Cos															
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6				
CO1	4	4	3.5	4	3.8	3.5	3	3.5	3.5	3.5	3	3.57			
CO2	2.5	4	3	4	4	3.5	3.5	3.5	4	4	3.5	3.59			
CO3	3.5	3.5	4	3.5	3.5	3.5	4	4	3.5	3	3.5	3.59			
CO4	3	4.5	3.5	4	3.5	4	3	3	3.5	4	3.5	3.59			
CO5	3	4	2.5	4	4	4	3.5	3.5	4	3.5	4	3.64			
				M	Iean Ov	erall Sc	ore					3.53			
]	Result	: The S	core fo	r this co	urse isl	High						
Mapping		1-2	0%		21-40%	Ó	41-60%		61-80	%	81	-100%			
Scale	1 2				2		3		4			5			
Relation	ation 0.0-1.0 1.1-2				1.1-2.0	0 2.1-3.0			3.1-4	.0	4	.1-5.0			
Quality		Very	Poor		Poor	Poor Moderate High Very Hig									
				I		Value S	caling	<u> </u>							
Mean Score of $COs = \frac{Total Values}{Total No. of POs \& PSOs}$ Mean Overall Score of $COs = \frac{Total Mean Score}{Total No. of COs}$															

UNIT- I: ELASTICITY-I

(12 Hours)

Hooke's law – stress – strain diagram – Modulus of elasticity - Relation between elastic constants – Poisson's ratio- Expressions for Poisson's ration in terms of elastic constants – work done in stretching of a wire and twisting a wire.

UNIT- II: ELASTICITY-II

(12 Hours)

Twisting couple on a cylinder – Torsional pendulum with and without masses—Rigidity modulus and moment of inertia – Rigidity modulus by static torsion - q, n and σ by Searle's method.

UNIT- III: BENDING OF BEAMS

(12 Hours)

Cantilever – Expression for bending moment – Expression for depression – Cantilever (static & dynamic methods) – Expression for time period and Experiment to determine Young's Modulus – Non-Uniform bending – Uniform bending – expressions - Experiment to determine Young's modulus using pin & microscope and optic lever – Experiment to determine Young's modulus by Koenig's method (Non-Uniform bending).

UNIT- IV: SURFACE TENSION

(12 Hours)

Molecular Interpretation - dimensions of surface tension — Excess of pressure over curved surfaces — Application to spherical and cylindrical drops and bubbles — Variation of surface tension with temperature — Jaeger's method

UNIT- V: VISCOSITY (12 Hours)

Co-efficient of viscosity and its dimensions – Rate of flow of liquid in a capillary tube – Poiseuille's formula – Experiment to determine co-efficient of viscosity of a liquid – variation of viscosity of a liquid with temperature and pressure – Viscosity of a gas – Rankine's method Applications of viscosity.

TEXT BOOKS:-

- 1. Brij Lal & N. Subrahmanyam, *Properties of Matter*, S. Chand Publications, 2002.
- 2. Murugeshan .R, *Properties of Matter and Acoustics*, New Delhi, S. Chand & Co, 2006.
- 3. Mathur D.S., Elements of *Properties of matter*, S. Chand, 2006.

REFERENCE BOOKS:-

1. C.L. Arora, P.S. Hemine., *Physics for Degree students. First B.Sc Physics*, 2010.

2. Brij Lal & Subrahmanyam, *Text Book of Sound*, New Delhi: N. Vikas Publishing House, 2008.

YEAR- I	Course				Course Title:					IRS/WI	K	CREDIT	
SEM- I	C	Code:			М	ECHA	NICS			4		3	
	191	PH102											
Course Ou	tcome	S									l_		
CO1	To ur	ndersta	nd the	basic i	deas of	mecha	nics in th	e field c	of dynam	nics			
CO2	To ur	ndersta	nd the	basic i	deas of	rigid b	odies						
CO3	To st	udy the	conce	pts spa	ace scie	ence.							
CO4	Unde	rstand	the Pro	jectile	s and F	riction							
CO5		o acquire knowledge of mechanics of Single Particles, Rigid Bodies and System of articles											
Mapping of course outcomes with the program specific outcomes													
Course	Prog	Programme Outcomes POs Programme Specific Outcomes PSOs Mean											
Outcomes												Score of	
Cos												CO's	
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO	5	
CO1	4.5	4.8	4	4.5	4	4	4.2	3.5	4	4.5	4	4.18	
CO2	3	3.5	4	4.5	4	4	4	4	3.5	4	2.5	3.73	
CO3	4	4	4.5	3.5	4	3.5	3	3	3.5	4	3.5	3.68	
CO4	3.5	3	3	3.5	4	4.5	4	4	3.5	3	3.5	3.59	
CO5	4	3	3	3.5	3	3	3.5	3.2	3	3	3	3.15	
				Me	an Ove	erall Sco	ore					3.68	
			R	esult:	The So	core for	this cou	ırse isH	igh		<u> </u>		
Mapping		1-2	0%		21-40%	ó	41-60%		61-80	%	81	-100%	
Scale		1	[2		3		4			5	
Relation	Relation 0.0-1.0 1.1-2					2.0 2.1-3.0			3.1-4.0			.1-5.0	
Quality		Very	Poor		Poor	r Moderate High Very H					ry High		
	<u> </u>			T.	7	/alue S	caling	L			1		
Mean So	core of	COs=	To Total N	tal Valu			Mean (Overall S	Score of	(C()s = -	tal Mea otal No	nScores of COs	

UNIT-I: MECHANICS OF A SINGLE PARTICLE

(12 hours)

Centre of gravity- Centre of gravity of a solid and hollow cone- Solid and hollow hemisphere-Thrust-Centre of pressure- Vertical rectangular lamina. Equation of continuity of flow- Energy of the fluid- Euler's Equation of unidirectional flow-Bernoulli's theorem.

UNIT-II: MECHANICS OF RIGID BODIES

(12 hours)

Rigid body- Moment of inertia- Radius of gyration- moment of inertia of a solid cylinder, cylindrical shell, solid sphere, spherical shell, hollow sphere with external and internal radii- Bifilar pendulum- Compound pendulum- Determination of g and k.

UNIT-III: SPACE SCIENCE

(12 hours)

Rockets and satellites- Basic principles of rocket motion Rocket equation, Thrust and acceleration- Escape velocity of multistage rockets.

UNIT IV: PROJECTILES AND FRICTION

(12 hours)

Projectile motion- Range of a projectile, maximum height reached and angle of projection for maximum height- Resultant velocity at a given instant(Definitions only)- Projectile on an inclined plane- Laws of friction-Sliding friction - Angle of friction- Cone of friction-acceleration down an inclined plane- Rolling friction and stability.

UNIT-V MECHANICS OF A SYSTEM OF PARTICLES

(12 hours)

Generalized Co-ordinates- transformation equations- configuration spaceprinciple of Virtual work- D' Alembert's principle- Lagrange's equations and its applications-

TEXT BOOKS:-

- 1. Narayanamoorti and Nagarathnam, *Statics, Hydrostatics and Hydrodynamics*, National Publishing Company, III Edition, 1997.
- 2. Murugeshan, *Mechanics and Mathematical Methods*, S.Chand and Co., 2005.
- 3. Gupta Kumar and sharma, Classical Mechanics, Pragati Prakashan, 2001.
- 4. C.L. Arora, Mechanics, S. Chand Publishing, 2014.
- 5. David Kleppner, Robert Kolenkow, An Introduction to Mechanics McGrawHill, 2017.
- 6. A. P. French, Newtonian Mechanics, Viva Norton Student Edition, 2011

REFERENCE BOOKS:

- 1. Mathur. D.S., II Edition, Mechanics, S. Chand & Co., 2006.
- 2. Feynmann R.P, Leighton R.B and Sands M, Ther feynmann, Lectures on Physics, Vols 1, 2 and 3-Narosa, New Delhi., 1998.
- 3. Brijlal and Subramaniyam, Mechanics and Electrodynamics, S. Chand, Kindle Edition, 2005.
- 4. Bhatia V.B., Classical Mechanics, Tamil Nadu Book House, 1997.
- 5. Charles Kittel, Walter Knight, Malvin Ruderman, Carl Helmholz, Burton Moyer, Mechanics: Berkeley Physics Course, 2017.
- 6. Somnath Datta Sunil Dutta, Mechanics, Pearson, 2010
- 7. Herbert Goldstein, Classical Mechanics, Pearson, 2011.
- 8. Rana & Joag, Rana, Classical Mechanics Tata McGraw-Hill Education, 2001.

YEAR- I SEM-II	C	ourse Code: PH203			_	ourse T MAL P	itle: HYSICS	<u> </u>	I	HRS/WI 4	K	CREDIT 3	
Course Ou			•						•		1		
CO1	To ur	nderstai	nd				f heat an	nd the la	ws assoc	ciated wi	ith them	1	
CO2	the na	ature ar	nd the	kineti	c theory	of gase	S						
CO3	To st	udy the	conce	pts of	gases a	t low te	mperatui	re					
CO4	To st	udy the	laws	of the	rmodyna	amics aı	nd under	stand th	eir appli	cations			
CO5													
Mapping of course outcomes with the program specific outcomes													
Course Outcomes Cos	Prog	gramm	ie Out	come	s POs	Pro	gramme	Specifi	c Outco	mes PS	Os	Mean Score of CO's	
Cos	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6		
CO1	4	4	3.5	4	3.5	4	4	3.5	3.5	4	3.5	3.77	
CO2	3.5	3.5	3.5	4	4	3.5	4	3.5	4	4	4	3.77	
CO3	4	4	4	3.5	4	3.5	3.5	3.5	3.5	4	4	3.77	
CO4	4	3.5	3.5	3.5	3.5	3	2.5	4	4	3.5	4	3.55	
CO5	3.5	4	3.5	4	3.5	3.5	4	4	3.5	3.5	3.5	3.68	
				M	ean Ove	erall Sco	ore					3.71	
			R	esult	The So	ore for	this cou	ırse isH	igh		•		
Mapping		1-2	0%		21-40%	ó	41-60%		61-80	%	81-	-100%	
Scale	Scale 1 2						3		4			5	
Relation		0.0-	-1.0		1.1-2.0	.0 2.1-3.0			3.1-4.0			1-5.0	
Quality		Very	Poor		Poor	oor Moderate High Very High							
Mean So	core of	COs=		tal Val		/alue So		Overall S	Score of	(`()s= —	otal Mear Otal No.c		

UNIT- I: HEAT AND THERMODYNAMICS (12 Hours)

HEAT: Basics of Heat transfer: Conduction, Convection, Radiation- Mechanical equivalent of Heat.

THERMODYNAMICS: Reversible and irreversible processes – Heat engines – Otto and diesel engines – thermodynamic scale of temperature - entropy - change of entropy in reversible and irreversible processes – T-S diagramentropy for a perfect gas - third law of thermodynamics

UNIT- II: KINETIC THEORY OF GASES

(12 Hours)

Expression for pressure - Transport phenomenon — expression for mean free path - thermal conductivity and diffusion of gases - distribution of molecular velocities — energy distribution function - Degrees of freedom - equipartition law of energy - C_{P} , C_{V} and γ of a gas - theory of Brownian motion — Langevin's theory.

UNIT- III: GASSES (12 Hours)

Molar heat capacities – Mayer's relation reversible adiabatic and isothermal changes– equations – Clement and Desormers method of determining C_p / C_v – Andrew's work on Co_2 – regenerative cooling – the Linde process – Liquid air, oxygen, hydrogen.

UNIT- IV: LOW TEMPERATURE PHYSICS

(12 Hours)

Helium – He I and He II – super fluidity - practical applications of low temperatures – refrigerating machines – electroflux refrigerator – Frigidaire – air conditioning machines – effects of CF_2 and CI_2 on Ozone layer.

UNIT- V: PHASE TRANSITION

(12 Hours)

First Latent heat equation (Clausius – Clapeyron equation), effect of pressure on melting and boiling point – second Latent heat equation - Maxwell's Thermodynamical relations—derivations.

TEXT BOOKS:-

- 1. Mathur D.S., Heat and Thermodynamics, S. Chand, 2014.
- 2. M. Narayanamoorthy and N. Nagarathinam, Heat, National publishing Co, Chennai, Eight Edition, 1987.
- 3. Murugeshan.R., Thermal Physics., S. Chand & Co., 2009.
- 4. Brijlal and Subramanyam, Heat and Thermodynamics, S. Chand & Co., 2000.

5. Gupta and Kumar, Elements of Statistical Mechanics, Meerut: Pragathi Prakashan, 2004.

REFERENCE BOOKS:-

- 1. Nelkon Parker, Advanced Level Physics, (Vol.V), Arnold Publication, Berkely Series, 1995.
- 2. Dr. Ilangovan and Dr.D. Jayaraman,, Thermal Physics, S. Chand & Co., 2014.

YEAR- I SEM- II	C	ourse Code: PH204		WA		ourse t	itle CILLATI	ONS	I	HRS/WK 4		CREDIT 3	
Course Ou	tcome	S									<u> </u>		
CO1	Unde	Understand the basics of SHM											
CO2	Unde	rstand	the wa	ve natı	ire of t	ransvers	e wave						
CO3	Unde	rstand	the wa	ve natı	ire of l	ongitudi	nal wav	ve					
CO4	Study	the w	aves in	more	than O	ne Dime	ension						
CO5	Unde	rstand	the Flu	ids as	continu	ious me	dia						
	N	Iappin	g of co	urse o	utcom	es with	the pro	gram sp	ecific o	utcomes	5		
Course	Prog	gramn	e Out	comes	POs	Prog	gramme	Specifi	c Outco	mes PS	Os	Mean	
Outcomes												Score of	
Cos												CO's	
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO	5	
CO1	3.2	2.8	4.1	3.5	3	2.8	3.5	3.1	4	3.4	3.2	3.32	
CO2	3.5	3.2	3	3	3.5	3.6	4	3.6	3	2.6	3.5	3.31	
CO3	3.5	4.2	3.2	2.8	3	3.2	3	3.5	3.7	3.5	3.2	3.34	
CO4	3.2	3.6	3	4	3	3.5	3.5	2.8	3.5	3.1	3.6	3.34	
CO5	4.1	3.5	3.7	3.2	3.5	2.5	3.5	3	4.1	3.2	3.5	3.43	
				Me	an Ove	rall Sco	re	l	l	l		3.34	
			R	esult:	The So	ore for	this cou	ırse isH	igh				
Mapping		1-2	0%		21-40%	ó	41-60%		61-80	%	81	81-100%	
Scale		1	[2		3		4			5	
Relation		0.0	-1.0		1.1-2.0)	2.1-3.0			.0	4	4.1-5.0	
Quality	Very Poor Poor Moderate High Very High								ery High				
	I			1	7	/alue Sc	aling				1		
Mean So	core of	COs=	To Total N	tal Valu o.of POs			Mean C	Overall S	Score of	(tal Mea otal No	nScores of COs	

UNIT - I: SIMPLE HARMONIC MOTION

(12 Hours)

Simple harmonic motion – Velocity and acceleration in SHM – Energy of a simple harmonic oscillator –Examples of simple harmonic oscillators in electrical systems – Superposition of two simple harmonic vibrations in one dimension–Damped harmonic oscillation – Forced oscillator.

UNIT - II: TRANSVERSE WAVES

(12 Hours)

Introduction to transverse waves — Velocities in wave motion — The transverse wave equation — Solution of the transverse wave equation — Standing waves on a string of fixed length — Energy of a vibrating string — Standing wave ratio — Wave groups and group velocity — Doppler effect .

UNIT - III: LONGITUDINAL WAVES

(12 Hours)

Introduction to longitudinal waves — Sound waves in gases — Energy distribution in sound waves — Intensity of sound waves — Longitudinal waves in a solid - Example of earthquake — Reflection and transmission of sound waves at boundaries — Noise and music — Limits of human audibility — The decibel unit — Diffraction of sound waves — Introduction to acoustic transducers — Acoustics of auditoriums and halls — Reverberation time.

UNIT - IV: WAVES IN MORE THAN ONE DIMENSION (12 Hours)

Plane wave representation in two and three dimensions – Wave equation in two dimensions – Solution by method of separation of variables – Introduction to normal modes in two dimensional case – Reflection and transmission of a three-dimensional wave at a plane boundary.

UNIT - V: CONTINUOUS MEDIA (FLUIDS)

(12 Hours)

Fluids as continuous media – Flow properties of liquids – Flow of ideal liquids – Bernoulli's theorem – Flow of real liquids – Viscosity – Newtonian and non-Newtonian fluids – Reynolds number – Streamline and turbulent flows – Stroke's law – Surface energy and surface tension.

Textbooks

- 1. H. J. Pain, The Physics of Vibrations and Waves, John Wiley, (2005), 6th Edition, for Units I, II & III.
- 2. D. S. Mathur, Elements of Properties of Matter, S. Chand & Co., (2005), 11th Edition, for Units IV & V

3.

Reference Books

- 1. David Halliday, Robert Resnick and Jearl Walker, Fundamentals of Physics, John Wiley & Sons (2004), 7 th Edition.
- 2. Berkeley Physics Course-Waves: Volume-III, McGraw Hill, (1969).
- 3. A. P. French, Vibrations and Waves (M.I.T Introductory Physics Series), CRC Press, (1971).
- 4. Lawrence E. Kinsler, Austin R. Frey, Alan B. Coppens and James V. Sanders, Fundamentals of Acoustics, John Wiley, (2000).
- 5. Richard P. Feynman, Robert B. Leighton, Matthew Sands, Feynman Lectures on Physics: The Definitive and Extended Edition. Addison-Wesley, (2005), 2 nd Edition.
- 6. F. H. Newman and V. H. L. Searle, The General Properties of Matter, Edward Arnold (1961).
- 7. B. H. Flowers, Properties of Matter, John Wiley, (1970).

YEAR- II	C	ourse				ourse	ı ti	tla		I	HRS/WI	K	CREDIT
SEM- III		Code: PH305	1	ELECT					ETISM		4		3
Course Ou	tcome	S	I										
CO1	To Understand The Electrostatics Concept And The Laws Associated With Them												
CO2	To ac	To acquire knowledge of chemical effects of electric current											
CO3	To st	udy the	conce	pts of i	DC circ	cuits							
CO4	To st	udy the	basics	of AC									
CO5	To ur	ndersta	nd the	concep	ots of m	nagnet	tic r	naterial	S				
	N	Iappin	g of co	urse o	utcom	es wit	th t	he prog	gram sp	ecific o	utcomes	3	
Course	Prog	gramm	e Out	comes	POs	Pr	rogi	ramme	Specifi	c Outco	mes PS	Os	Mean
Outcomes													Score of
Cos													CO's
	PO1	PO2	PO3	PO4	PO5	PSO	1	PSO2	PSO3	PSO4	PSO5	PSO	5
CO1	3	2.5	4.1	3.5	3	2.5	i	3	3.1	4	3.2	3.2	3.19
CO2	3.3	3.2	3	3	3.5	2.8	;	4	3.6	3	2.3	3.5	3.2
CO3	3.5	4.2	3.5	2.8	3	3.2	;	3.5	3.5	3.7	4	3.2	3.46
CO4	3.2	3.8	3	4.2	3	3.5	í	3.5	2.8	3.6	3.5	3.6	3.42
CO5	4.3	3.5	3.7	3.2	3.8	2.5		3.5	3.2	4.3	3.2	3.5	3.51
				Me	an Ove	erall S	cor	e					3.36
			R	esult:	The So	core fo	or t	this cou	rse isH	igh			
Mapping		1-2	0%		21-40%	ó	4	11-60%		61-80	%	81	-100%
Scale		1			2			3		4			5
Relation	n 0.0-1.0 1.1-2.0 2.1-3.0 3.1-4.0									4	.1-5.0		
Quality		Very	Poor		Poor			Ioderate	2	High	1	Ve	ry High
					1	Value :	Sca	lling					
Mean So	core of	COs=	To Total No	tal Valu o.of POs			-	Mean C	overall S	core of	(`()s= —	tal Mea otal No.	

UNIT I ELECTROSTATICS

(12 hours)

Coulomb's law – electric intensity and electric potential – electrical images (any four examples)- electric intensity and potential due to an earthed conducting sphere applying the principle of electrical images- capacity – capacitance of a spherical and cylindrical capacitor – energy of a charged capacitor – loss of energy due to sharing of charges

UNIT II CHEMICAL EFFECTS OF ELECTRIC CURRENT (12 hours)

Carey foster bridge - theory - Determination temperature co-efficient of resistance - Calibration of voltmeter - Ammeter - Using Potentiometer - thermoelectricity- Peltier's coefficient - Thomson coefficient - application of thermodynamics to a thermocouple and connected relations- thermoelectric diagram and uses.

UNIT III TRANSIENT CURRENT

(12 hours)

Growth and decay of current in a circuit containing resistance and inductance – Growth and decay of charge in a circuit containing resistance and capacitor-Growth and decay of charge in a LCR circuit – condition for the discharge to be oscillatory – frequency of oscillation.

UNIT IV A.C AND ELECTROMAGNETIC INDUCTION (12 hours)

Power in AC circuit – wattless current- choke coil construction and working of transformers- energy losses – AC motors – single phase, three phases – star and delta connection –electric fuses- circuit breakers. Inductances in series and parallel-Self inductance of co-axial cylinders- Single phase induction motor

UNIT V MAGNETIC PROPERTIES OF MATERIALS (12 hours)

Susceptibility- permeability- intensity of magnetization and the relation B= u(H+M), M-H and B-H curves for a magnetic material using magnetometer method and ballistic galvanometer method – Terrestrial magnetism – magnetic elements- dip circle.

TEXT BOOKS:

- 1. Murugeshan R, *Electricity and Magnetism*, 8th Edition, New Delhi, S. Chand & Co., 2006.
- 2. Brijlal and N. Subramanian, Electricity and Magnetism, Agra, Ratan & Prakash, 6th Edition.
- 3. Narayanamoorthy M & Nagarathnam N, *Electricity and Magnetism*, Meerut, National Publishing Co., 4th edition.

- 4. Tewari. K. K, *Electricity and Magnetism*, 3rd Edition, New Delhi, S. Chand & Co., 2001.
- 5. C.L. Arora, Electricity and Magnetism, S. Chand Publishing, 2014.
- 6. D.S. Mathur, *Electricity and Magnetism*, S. Chand, 12th Edition.

REFERENCE BOOK:

- 1. David J Griffith, *Introduction to Electrodynamics*, 2nd Edition, New Delhi, Prentice Hall of India Pvt. Ltd, 1997.
- 2. Sehgal D.L, Chopra K. L and Sehgal N. K, *Electricity and Magnetism*, New Delhi, Sultan Chand & Co.,
- 3. Brij Lal, Subramanian N and Jivan Seshan, *Mechanics and Electromagnetics*, New Delhi, Eurasia Publishing House Pvt .Ltd, 2005.

YEAR- I SEM- III	C	ourse Code:		Course title BASIC ELECTRONICS						HRS/WK 4		CREDIT 3	
G 0		PH306											
Course Ou	tcomes	5											
CO1	Understand the working of Diode and its applications. Understand the working of Transistor.												
CO2													
CO3		rstand					1 1 1 1-14	: X7:14					
CO4							and Mult		ors				
CO5	•				• •		lectronic the pro		ecific o	utcomes			
	ı											7.6	
Course	Prog	gramm	ie Out	comes	POs	Prog	gramme	Specific	c Outco	mes PS	Os	Mean	
Outcomes												Score of	
Cos												CO's	
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO	5	
CO1	4.5	4.8	4	4.5	4	4	4.2	3.5	4	4.5	4	4.18	
CO2	3	3.5	4	4.5	4	4	4	4	3.5	4	2.5	3.73	
CO3	4	4	4.5	3.5	4	3.5	3	3	3.5	4	3.5	3.68	
CO4	3.5	3	3	3.5	4	4.5	4	4	3.5	3	3.5	3.59	
CO5	4	3	3	3.5	3	3	3.5	3.2	3	3	3	3.15	
	Į.			Me	an Ove	rall Sco	re			l .		3.68	
			R	esult:	The So	ore for	this cou	rse isHi	igh				
Mapping		1-2	0%	2	21-40%	ó	41-60%		61-80%			81-100%	
Scale		1			2		3		4			5	
Relation		0.0-	-1.0		1.1-2.0)	2.1-3.0		3.1-4.	.0	4	1.1-5.0	
Quality		Very	Poor		Poor	ı	Moderate	e	High V			ery High	
	I			1	7	/alue Sc	aling				1		
Mean So	core of	COs=		tal Valu o.of POs		Mean Overall Score of $COs = \frac{Total Mean Scores}{Total No. of COs}$							

UNIT – I : DIODES AND ITS APPLICATIONS

(12 hours)

Bonding, Band gap of semiconductors –Types of semiconductors-Elemental and Compound semiconductors-intrinsic and extrinsic semiconductors – effect of temperature on Fermi level – PN junction diode – Zener diode-LED - Halfwave , full-wave and bridge rectifier – expression for efficiency and ripple factor – choke input filter – capacitor input filter – π section filter – zener regulated power supply

UNIT-II: TRANSISTORS

(12 hours)

Different modes of operation – transistor biasing –characteristics in CB & CE modes –H-Parameters- α and β of a transistor. RC coupled amplifier – frequency response curve – analysis of mid-frequency region – classification of amplifiers – class A power amplifier – Push-pull, class B power amplifier – Emitter follower.

UNIT-III: OSCILLATORS

(12 hours)

Voltage gain of a feedback amplifier – Barkhausen criterion – Hartley, Colpitt's, phase shift and Weinbridge oscillators – expression for frequency of oscillations and condition for sustained oscillations in each case – crystal oscillator – frequency stability.

UNIT –IV: WAVE SHAPING CIRCUITS AND MULTI VIBRATORS (12 hours)

Clipping and clamping circuit – biased clipper – integrating and differentiating circuits – RC time constants. Multivibrators – Astable – Mono stable and bistable multivibrators – Schmitt trigger

UNIT -V: APPLICATION OF ELECTRONICS

(12 hours)

Passive devices – resistors – Capacitors – Colour coding – TV antennas – dipole – folded – Yagi – Dish – DTH – Mobile communication system.

TEXT BOOKS

- 1. B.L. Theraja, *Electronics*, S. Chand Publishing, 2005.
- 2. V. K Mehta, *Principles of electronics*, S. Chand & Co., 2005.
- 3. M.K. Bagde and S. P. Singh, *Elements of Electronics*, S. Chand Publishing, 2000.
- 4. K.V. Ramanan, Functional electronics, McGraw-Hill Inc., US, 1984.
- 5. M. Arul Thalapathi, Basic and Applied Electronics, Comtek publisher, 2005.

REFERENCE BOOKS

- 1. A. Malvino, *Electronics Principles*, McGraw Hill Education, 7th Edition, 2006.
- 2. Allen Mottershed, Electronic Devices and Circuits, Goodyear Pub. Co., 1973.
- 3. Manna, Solid state electronics, Tata McGraw Hill
- 4. B. Grob, *Basic electronics*, McGraw Hill Education, 12th Edition.
- 5. R.S. Sedha, *Applied Electronics*, S. Chand & Company Ltd; 2nd New Edition, 2000.

YEAR- II	Cou	rse Co	de:			Course	Title:			HRS/	WK	CREDIT
SEM- IV	19	PH407	7	ATOMIC PHYSICS 4								3
Course Ou	tcome	S										<u> </u>
CO1	Acquire knowledge through discharge phenomenon through gases											
CO2	Get tl	Get the basic knowledge of atomic structure										
CO3	Acqu	Acquire knowledge ionization potential and splitting of energy levels										
CO4	Unde	rstand	the cor	ncept o	f photo	electric	ity and v	erificati	ons by e	experime	ents.	
CO5	Unde	rstand	the pro	ductio	n and p	ropertie	es of X-r	ays.				
	I	Mappi	ng of c	ourse	outcor	nes with	the pro	ogram s	pecific (outcome	es	
Course	Prog	gramn	ne Out	comes	POs	Pro	gramm	e Speci	fic Outc	omes P	SOs	Mean
Outcomes												Score of
COs												CO's
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	
CO1	3	3.5	3	3.2	3.5	4	3	3	3.5	3.5	4	3.38
CO2	4	4	3.5	4	4	4	2.5	3.5	4	3.5	4	3.73
CO3	4	3.5	4	3.5	3	3.5	4	4	4	3	3.5	3.64
CO4	3.5	3.5	4	3.5	3.5	3.5	4	3.5	3.5	3.5	3.5	3.59
CO5	4	4	3.5	3.5	4	4	3.5	4	4	3.5	3	3.73
				Mea	n Over	all Scor	e			•		3.61
			I	Result:	The S	core for	this co	urse is l	High			
Mapping		1-2	0%		21-40%	Ó	41-60%)	61-80)%	81	-100%
Scale		1	1		2		3		4			5
Relation	0.0-1.0 1.1-2.0 2.1-3.0 3.1-4.0 4.1								.1-5.0			
Quality	Very Poor Poor Moderate High Very									ry High		
				1		Value S	caling	•			•	
Mean So	core of	COs=		tal Valu o.of POs			Mean	Overall	Score of	f COs= -	Total Mea Total No.	

UNIT I: DISCHARGE PHENOMENON THROUGH GASES (15 hours)

Motion of a charge in transverse electric and magnetic fields – specific charge of electron – Dunnington's method – Magnetron method – positive rays – Thompson parabola method – Aston and Dempster's mass spectrograph.

UNIT II: ATOMIC STRUCTURE

(15 hours)

Vector atom model – Pauli's exclusion principle – explanation of periodic table – various quantum numbers – angular momentum and magnetic moment – coupling schemes – LS and JJ coupling – spatial quantization – Bohr magnetron Spectral terms and notations – selection rules – intensity rule and interval rule.

UNIT III: IONISATION POTENTIAL AND SPLITTING OF ENERGY LEVELS (15 hours)

Excitation and ionization potential – Davis and Goucher's method – Zeeman effect – Larmor's theorem – Debye's explanation of normal Zeeman effect – Anomalous Zeeman effect – theoretical explanation- Lande's 'g' factor and explanation of splitting of D1 and D2 lines of sodium – Paschen Back effect – theory – Stark effect (Qualitative treatment only)

UNIT IV: PHOTOELECTRICITY

(15 hours)

Photo electricity: Photoelectric emission laws — Lenard's experiment-Richardson and Compton experiment- Einstein photoelectric equation - experimental verification of Einstein's photoelectric equations by Millikan's experiment.

UNIT V: X-RAYS (15 hours)

X-RAYS: Continuous and characteristic X-RAY spectra absorption of X-RAYS by matter- concept of reciprocal lattice, Compton effect-derivation of expression for change in wavelength-experimental verification

TEXTBOOKS

- 1. R. Murugeshan, *Modern Physics*, S. Chand & Co., New Delhi, 2009.
- 2. N. Subramanian and Brij Lal, *Atomic and Nuclear Physics*, S. Chand & Co., 2013.
- 3. J. B. Rajam, Atomic Physics, S. Chand Publishing Co., 2010.

REFERENCE BOOKS

- 1. A. B. Gupta and Dipak Ghosh, Atomic Physics, Books and Allied Publishers, 2nd Edition, 2009.
- 2. J. H. Hamilton and Yang, Modern Physics, McGraw Hill Publication, 1996.
- 3. A. Beiser, Concepts of Modern Physics, Tata McGraw Hill, New Delhi, 1997.
- 4. D. Halliday, R. Resnick and J. Walker, Fundamentals of Physics, Willey NY, 6th Edition, 2001.

YEAR- II	Cou	rse Co	de:			Course	e Title:			HRS/	WK	CREDIT
SEM- IV	19	PH40	8		APPL	3						
Course Ou	tcome	S							<u> </u>			
CO1	Obtained knowledge of special devices and applications											
CO2	Study	Study of various linear operational amplifier circuits										
CO3	Study	Study of various applications of operational amplifier										
CO4	Basis	introd	uction	of555	timer a	nd lock	ed loop					
CO5	Acqu	ire bas	is idea	s of D/	A and A	A/D con	verter					
	I	Mappi	ng of c	course	outcon	nes with	the pro	ogram s	pecific o	outcome	es	
Course	Prog	gramn	ne Out	comes	POs	Pro	gramm	e Specif	fic Outc	omes P	SOs	Mean
Outcomes												Score of
COs												CO's
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	
CO1	4	3.5	3.5	3.5	4	3.5	4	4	3	3	3	3.55
CO2	4	3.5	2.5	4	3.5	4	3.5	3.5	3	3	4	3.50
CO3	3.5	4	3.5	4	4	4	4.5	3.5	3.5	3.5	3.5	3.77
CO4	3.5	3.5	4	3.5	4	3.5	4	4	3	3.5	3.5	3.64
CO5	4	4	4	4	3.5	3	4	3.5	3	3.5	3.5	3.64
				M	ean Ov	erall Sc	ore			1	1	3.62
			I	Result:	The S	core for	this co	urse is l	High			
Mapping		1-2	20%		21-40%	6	41-60%	,	61-80)%	81	-100%
Scale			1		2		3		4			5
Relation		0.0	-1.0		1.1-2.0)	2.1-3.0		3.1-4	.0	4	.1-5.0
Quality	Very Poor Poor Moderate High Very									ry High		
						Value S	caling				<u>l</u>	
Mean So	core of	COs=		tal Valu			Mean	Overall	Score of	f COs=	Total Mea Total No.	

UNIT - I : SPECIAL DEVICES AND APPLICATIONS (15 hours)

FET _ Characteristics - parameter FET as amplifier - FET as VVR - MOSFET - Depletion and enhancement - UJT characteristics - UJT as relaxation oscillator - SCR characteristics.

UNIT - II: LINEAR OPERATIONAL AMPLIFIER CIRCUITS (15 hours)

OPAMP — Parameters — inverting and Non-inverting amplifier — gain — Miller effect — Virtual ground — offset voltage — offset current — PSRR - CMRR. OPAMP — Sign and scale changer — adder, subtractor and averager — integrator and differentiator — voltage follower — solving simultaneous linear equation.

UNIT – III: APPLICATIONS OF OPERATIONAL AMPLIFIER (15 hours)

OP AMP logarithmic amplifer – antilogarthmic amplifer – Logarithmic multiplier – Logarithmic divider.Comparator – Schmitt trigger – Astable multivibrator – Monostable multivibrator – Bistable multivibrator – Wein Bridge oscillator – phase shift oscillator.

UNIT - IV : 555 TIMER AND PLL

(15 hours)

555 Timer block diagram - Monostable operation – Astable operation – Schmitt trigger. Phase – Locked Loops (PLL): Basic principles – phase Detector- Analog phase detector – Digital phase detector – voltage controlled oscillator (VCO).

UNIT - V : D / A AND A / D CONVERTER

(15 hours)

Weighted resistor D/A converter – 4bit R-2R ladder DAC – Analog to Digital converter – Stair case ADC– Successive approximation ADC.

TEXT BOOKS

- 1. Vijayendran, Integrated Physics, S. Viswanathan Pvt. Ltd., 2009.
- 2. R.S. Sedha, *Applied Electronics*, S. Chand & Company Ltd., 2nd New Edition, 2000.
- 3. M. Arul Thalapathi, *Basic and Applied Electronics*, Cometak Publisher Chennai, 2005.

REFERENCE BOOKS

- 1. Albert Paul Malvino, Digital Computer Electronics, TMH Edition, 1992.
- 2. I.J. Jagrath, *Electronics Analog and Digital,* Prentice Hall of India, New Delhi, 1999.
- 3. Malvino Leach, *Digital Principles and Applications*, 4th Edn., Tata McGraw Hill, 1992.
- 4. Jacob Millman and Christos C. Halkias, *Integrated Electronics*, McGraw Hill International, 1971.
- 5. D. Roy Choudhury and Shall Jain, *Linear Integrated Circuits*, New age International (p) Ltd., 2010.
- 6. Ramakant A. Gayakwad, *OP-AMPS and Linear Integrated Circuits,* Prentice Hall of India, 1994.

YEAR-	Cou	rse Co	de:			Course	Title:			HRS/	WK	CREDIT	
III	19	PH509	9	OPTICS & SPECTROSCOPY 5							5		
SEM- V													
Course Ou	tcomes	S	•						'				
CO1	Learn	Learn the basics of Geometrical Optics and Lenses											
CO2	Study	Study the concepts Interference and its applications											
CO3	Acqu	ire Kno	owledg	e abo	ut Diffr	action a	nd its ap	plication	ıs				
CO4	To U		and the	e con	cept of	Polariz	ation an	nd its ap	plicatio	n in ana	alyzing	the optical	
CO5	To Pr	ocure 1	the Fur	ndame	ntal kno	owledge	of Spec	troscopy	7				
	<u>l</u>	Mappi	ng of c	course	outcon	nes witl	n the pr	ogram s	pecific (outcome	es		
Course	Prog	gramm	ne Out	come	s POs	Pro	ogramm	e Specif	ic Outc	omes PS	SOs	Mean	
Outcomes												Score of	
COs												CO's	
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6		
CO1	3	3.5	3	3.2	3.5	4	3	3	3.5	3.5	4	3.38	
CO2	4	4	3.5	4	4	4	2.5	3.5	4	3.5	4	3.73	
CO3	4	3.5	4	3.5	3	3.5	4	4	4	3	3.5	3.64	
CO4	3.5	3.5	4	3.5	3.5	3.5	4	3.5	3.5	3.5	3.5	3.59	
CO5	4	4	3.5	3.5	4	4	3.5	4	4	3.5	3	3.73	
		I	I	N	Iean Ov	erall Sc	core		I			3.61	
			F	Result	: The S	core fo	r this co	urse is l	High				
Mapping		1-2	0%		21-409	6	41-60%		61-80	1%	81	-100%	
Scale			1		2		3		4			5	
Relation	0.0-1.0 1.1-2.0 2.1-3.0 3.1-4.0 4.1									.1-5.0			
Quality	Very Poor Poor Moderate High Very High										ry High		
	I			1		Value S	Scaling	l			1		
Mean So	core of	COs=		tal Val	ues s & PSOs		Mean	Overall	Score of	f COs= -	Total Mea Total No.		

UNIT – I: GEOMETRICAL OPTICS

(15 hours)

Spherical aberration and lenses – Methods of minimizing spherical aberration – Condition for minimum spherical aberration in the case of two lenses separated by a distance – Chromatic aberration in lenses – Condition for achromatism of two thin lenses (In contact and out of contact) – Coma - Ramsden and Huygens's eyepieces – Angular dispersion – Dispersive power – combination of prisms to produce dispersion without deviation – Deviation without dispersion – Achromatic prisms Direct vision spectroscope – Constant deviation spectrometer – calculation of characteristic wave number of spectral lines.

UNIT - II: INTERFERENCE

(15 hours)

Colours of thin films – Air wedge – Determination of diameter of a thin wire by air wedge – Test for optical flatness – Michelson's Interferometer – Theory – Applications - λ , thickness of thin transparent material and resolution of spectral lines – Brewster's fringes – Refractive index of gases – Jamin's & Rayleigh's Interferometers – Stationary waves in light.

UNIT III: DIFFRACTION

(15 hours)

Fresnel diffraction — Diffraction at circular aperture, opaque circular disc, straight edge and narrow wire- Fraunhofer diffraction — single slit — double slit —Rayleigh's criteria — Resolving power of telescope, prism, microscope and grating.

UNIT - IV: POLARIZATION

(15 hours)

Double refraction — Nicol prism — polarizer and analyzer — Huygens's explanation of double refraction in uniaxial crystals — Dichroism — polaroids and their uses — plane, circularly and elliptically polarized light — production and detection — Optical Activity — Fresnel's explanation of optical activity — Specific rotatory power — Determination using Laurent's half shade polarimeter — Kerr effect and Faraday effect.

UNIT - V: SPECTROSCOPY

(15 hours)

Infrared spectroscopy, RAMAN, NMR, ESR - Principle –Instrumentation – applications-LASER, Principles of LASER, Semiconductor LASER, Nd-Yag LASER-Applications

Text Books

- 1. Subramaniam N & Brijlal, Optics, S. Chand & Co. Pvt. Ltd., New Delhi, 1990.
- 2. Khanna D R & Gulati H R, Optics, S. Chand & Co. Pvt. Ltd., New Delhi, 1979.
- 3. R. Murugesan, *Optics and Spectroscopy* S. Chand & Co. Pvt. Ltd., New Delhi, 2009.
- 4. Kailash K. Sharma, *Optics: Principles and Applications*, Academic Press, 2006.

REFERENCE BOOKS

- 1. Jenkins A. Francis and White E. Harvey, *Fundamentals of Optics*, McGraw Hill Inc., New Delhi, 1976.
- 2. Lipson S G, Lipson H and Tannhauser D S, *Optical Physics*, Cambridge University Press, 1995.
- 3. Raj M G, Fundamentals of Optics, Anmol Publications Pvt. Ltd, New Delhi, 1996.
- 4. D. Halliday, R. Resnick and J. Waler, *Fundamentals of Physics*, Wiley NY 6th Edition, 2001.
- 5. D Halliday, Resnick and K. S. Krane, *Physics*, 4th Edition Vols I & II, Wiley, 1994.
- 6. R. P. Feynman, R. B. Leighton and M. Sands, *The Feynman Lectures on Physics*, Vols.I, II and III Narosa, New Delhi, 1998.
- 7. G.Aruldhas, Spectroscopy, Vendeur Book Vistas (New Delhi, India), 2009.

YEAR-	Course Code: Course Title: HRS/WK 19PH510 SOLID STATE PHYSICS 5										CREDIT		
III	19	PH510)		SOLII	O STAT	E PHY	SICS		5		5	
SEM- V													
Course Ou	tcome	s											
CO1	To Lo	earn the	e Fund	ament	al of Bo	onds in S	Solids						
CO2	To St	tudy the	e conce	epts of	X-ray	diffracti	on its ap	plicatio	ns in sol	ids			
CO3	Unde	rstandi	ng the	prope	rties of	Magnet	ism and	its appli	cations	in quantı	ım phys	ics	
CO4	Acqu	iring t	he kno	wledg	e of Di	electric	s and its	propert	ies in va	rious ma	terials		
CO5	To Pı	rocure 1	the kno	wledg	e of Su	perconc	luctivity	and its	applicati	ons			
]	Mappi	ng of c	ourse	outcon	nes witl	n the pro	ogram s	pecific (outcome	es		
Course	Prog	gramn	e Out	comes	POs	Pro	ogramm	e Speci	fic Outc	omes PS	SOs	Mean	
Outcomes				Score of									
COs					C								
	PO1	PO2	PO3	PO4	PO5	PSO1	O1 PSO2 PSO3 PSO4 PSO5 PSO6						
CO1	1.1	3.5	1.2	3.3	2.2	4.4	4.3	4.1	4.5	3.6	2.4	3.14	
CO2	1.2	3.8	1.3	3.3	2.1	3.9	3.7	3.7	3.9	3.7	2.2	2.98	
CO3	1.6	3.8	1.2	3.1	2.3	4.8	4.1	3.8	3.8	3.9	2.5	3.17	
CO4	1.2	3.4	1.6	3.6	2.5	3.9	4.2	4.6	4.3	4.6	2.2	2.95	
CO5	1.4	4.0	1.1	3.7	2.2	4.0	3.9	4.2	4.5	4.3	2.1	3.21	
	•	1		M	Iean Ov	erall Sc	core	•	•		•	3.09	
			I	Result	The S	core fo	r this co	urse is l	High				
Mapping		1-20% 21-40% 41-60% 61-80% 81-100%											
Scale		-	1		2		3		4			5	
Relation		0.0	-1.0		1.1-2.0)	2.1-3.0		3.1-4	.0	4	.1-5.0	
Quality		Very	Poor		Poor		Moderat	e	Higl	1	Ve	ry High	
	1					Value S	Scaling	l			1		
Mean So	core of	COs=		tal Vali	ues s & PSOs		Mean	Overall	Score of	f COs= ⁷	otal Mea Total No		
1.10411 5			Total N	o.of PO	s & PSOs		1.10411				Total No.	of COs	

Unit I: BONDS IN SOLIDS

(15 hours)

Crystal lattice- primitive and unit cell- seven classes of crystals – Bravais lattice-Miller indices- structure of crystals- simple cubic, Hexagonal close packed structure-Face centred cubic structure, Body centered cubic structure, Simple cubic structure-Sodium chloride structure, Zinc Blende structure, Diamond structure

Unit II: X-RAY DIFFRACTION

(15 hours)

Diffraction of x-rays by crystals-Bragg's law in one dimension-Experimental method in x-ray diffraction-Laue method, Rotating crystal method-Powder photograph method-von Laue's equations-Point defects- Line defects- Surface defects- Volume defects-Effects of crystal imperfections

Unit III: MAGNETISM

(15 hours)

Different type of magnetic materials- Classical theory of Diamagnetism(Langevin theory)-Langevin theory of Paramagnetism – Weiss theory of Paramagnetism- Qualitative explanation of Heisenberg's Internal Field and Quantum Theory of Ferromagnetism.

Unit IV: DIELECTRICS

(15 hours)

Fundamentals definitions in dielectrics – different types of electric polarization-Frequency and Temperature Effects on Polarization – Dielectric loss – Local Field on internal field Clausius-Mosotti Relation- Determination of Dielectric Constant – Dielectric Breakdown – Properties of Different types of insulating materials

Unit V: SUPERCONDUCTIVITY

(15 hours)

Introduction-Meissner effect-Limitation- Type I& II Superconductivity-Vortex states- BCS Theory(Qualitative treatment only)-Josephson's effect-Copper pair tunneling.

TEXT BOOKS

- 1. K. Ilangovan, Solid State Physics, MJP Publication, 2012.
- 2. S.O. Pillai, *Solid State Physics*, New Age Science Publication, 2009.
- 3. Arumugam, Materials Science, Anuradha Publications, 2015.
- 4. Puri & Babber, Solid State Physics, S. Chand Limited, 2008.

- 1. C. Kittel, *An introduction to Solid State Physics*, 5th Edition, Published by John Wiley & Sons Inc, 1976.
- 2. Dekker A.J. Solid State Physics, Mac Millon Ind. Ltd., 1985.
- 3. Ascroft & Mermin, Solid State Physics, Pacific Grove, CA: Brooks cole, 1976.
- 4. Gupta and Kumar, Solid State Physics, K Nath & Co., 2013.

19	Course Code: Course Title: HRS/WK									CREDIT			
19EPH51A DIGITAL ELECTRONICS 5									4	5	4		
tcomes	8												
To Le	earn the	e Fund	ament	al of Di	gital ele	ectronics	& Micr	oprocess	sor				
To St	udy the	e funct	ions o	f Boole	an Alge	bra							
Obtai	ning t	he kno	wledg	e abou	t Arithn	netic circ	uits & S	Sequentia	al Logic	circuits			
To Le	earn ab	out the	e work	ing of	D/A & .	A/D Con	verters						
To In	troduce	e the c	oncep	ts and v	vorking	of micro	process	or 8085					
ľ	Mappi	ng of c	ourse	outcon	nes wit	h the pro	ogram s	pecific o	outcome	es			
Prog	gramm	ne Out	comes	POs	Pr	Programme Specific Outcomes PSOs Mean							
						Score of							
						CC							
PO1	PO2	PO3	PO4	PO5	PSO1	PSO2 PSO3 PSO4 PSO5 PSO6							
3.5	4	3.5	3	3	3	3	2.5	3.5	3	3.5	3.23		
3.5	4	4	4	4	2.5	2.5	4	4	4	4	3.68		
3	3.5	3	2.5	4	4	4	3.5	3.5	4	4	3.55		
3	3.5	2.5	3.5	4	3.5	4	3.5	4	3.5	3.5	3.50		
4	3.5	4	3.5	3.5	4	3.5	3.5	3.5	3.5	3.5	3.64		
			N	Iean Ov	erall So	core	•	•	•	•	3.52		
		F	Result	The S	core fo	r this co	urse is l	High					
1-20% 21-40% 41-60% 61-80% 81-100%										-100%			
]	1		2		3		4			5		
	0.0	-1.0		1.1-2.0)	2.1-3.0		3.1-4	.0	4	.1-5.0		
	Very	Poor		Poor		Moderat	e	High	1	Ve	ry High		
ı					Value S	Scaling	•						
core of	COs=					Mean	Overall	Score of	$f COs = \frac{7}{2}$				
	To Let To St Obtain To Let To In Prog	To Study the Obtaining to To Learn at To Introduce Mappin Programm PO1 PO2 3.5 4 3.5 4 3 3.5 4 3.5 4 3.5 0.0	To Learn the Fundation of Study the function of Study the function of Core of COs=	To Learn the Fundamenta To Study the functions of Obtaining the knowledge To Learn about the work To Introduce the concept Mapping of course Programme Outcomes PO1 PO2 PO3 PO4 3.5 4 3.5 3 3.5 4 4 4 4 4 4 3 3.5 3 2.5 3.5 4 3.5 4 3.5 4 3.5 Result: 1-20%	To Learn the Fundamental of Dit To Study the functions of Boole Obtaining the knowledge about To Learn about the working of To Introduce the concepts and variables of Mapping of course outcomes Pos PO1	To Learn the Fundamental of Digital electrons of Boolean Algerations of D/A & Algerations of Boolean Algerations o	To Learn the Fundamental of Digital electronics To Study the functions of Boolean Algebra Obtaining the knowledge about Arithmetic circ To Learn about the working of D/A & A/D Con To Introduce the concepts and working of micro Mapping of course outcomes with the pro Programme Outcomes POs Programm PO1 PO2 PO3 PO4 PO5 PSO1 PSO2 3.5 4 3.5 3 3 3 3 3 3.5 4 4 4 4 4 2.5 2.5 3 3.5 3 2.5 4 4 4 3 3.5 2.5 3.5 4 3.5 4 4 3.5 4 3.5 3.5 4 3.5 Mean Overall Score Result: The Score for this co 1-20% 21-40% 41-60% 1 2 3 0.0-1.0 1.1-2.0 2.1-3.0 Very Poor Poor Moderat Value Scaling	To Learn the Fundamental of Digital electronics & Micr To Study the functions of Boolean Algebra Obtaining the knowledge about Arithmetic circuits & STo Learn about the working of D/A & A/D Converters To Learn about the working of D/A & A/D Converters To Introduce the concepts and working of microprocess Mapping of course outcomes with the program some statement of the program of the progr	To Learn the Fundamental of Digital electronics & Microprocess To Study the functions of Boolean Algebra Obtaining the knowledge about Arithmetic circuits & Sequential To Learn about the working of D/A & A/D Converters To Introduce the concepts and working of microprocessor 8085 Mapping of course outcomes with the program specific of the Programme Outcomes POs Programme Outcomes POs Programme Specific Outcomes Pos Prog	To Learn the Fundamental of Digital electronics & Microprocessor To Study the functions of Boolean Algebra Obtaining the knowledge about Arithmetic circuits & Sequential Logic To Learn about the working of D/A & A/D Converters To Introduce the concepts and working of microprocessor 8085 Mapping of course outcomes with the program specific outcomes Programme Outcomes POs Programme Specific Outcomes PS Programme Specific Outcomes PS 3.5 4 3.5 3 3 3 3 3 2.5 3.5 3 3 3 3 3 2.5 3.5 3 3 3 3 3 3 2.5 3.5 3 3 3 3 3 3 3 3 3	To Learn the Fundamental of Digital electronics & Microprocessor To Study the functions of Boolean Algebra Obtaining the knowledge about Arithmetic circuits & Sequential Logic circuits To Learn about the working of D/A & A/D Converters To Introduce the concepts and working of microprocessor 8085 Mapping of course outcomes with the program specific outcomes Programme Outcomes POs Programme Specific Outcomes PSOs Programme Specific Outcomes PSOs PO1 PO2 PO3 PO4 PO5 PSO1 PSO2 PSO3 PSO4 PSO5 PSO6 3.5 4 3.5 3 3 3 3 3 2.5 3.5 3 3.5 3.5 4 4 4 4 4 2.5 2.5 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		

UNIT-I DIGITAL FUNDAMENTALS

(15 hours)

Number systems – decimal, binary, octal and hexadecimal systems – conversion from one number system to another Codes – BCD code – excess 3 code, Gray code – ASCII code – Binary arithmetic – Binary addition – subtraction – unsigned binary numbers – sign magnitude numbers – I's and 2's complement – Binary multiplication and division.

LOGIC GATES AND LOGIC FAMILIES

(15 hours)

AND, OR circuits using diodes and transistors – NOT using transistors – NAND, NOR and EXOR – functions and truth tables. NAND & NOR as universal gates.

UNIT – II BOOLEAN ALGEBRA AND SIMPLIFICATION OF LOGIC CIRCUITS (15 hours)

Laws and theorems of Boolean algebra – De Morgan's theorems and their circuit implications – Duality theorem, simplification of Boolean equations – Karnaugh map – pairs, quads, octets – 2,3 and 4 variables –SOP method – NAND – NAND circuits – POS method – NOR – NOR circuits.

UNIT - III ARITHMETIC CIRCUITS AND SEQUENTIAL LOGIC CIRCUITS (15 hours)

Arithmetic building blocks – Half adder – Full adder – parallel binary adder – Half subtractor – Full subtractor – The adder- subtractor – digital comparator – parity checker/generator. Flip-flops –JK flip – flop – JK master slave flip-flop – Flip flop applications. Shift register functions- Shift right-shift left-Shift register applications.

UNIT – IV: D/A AND A/D CONVERTERS

(15 hours)

Introduction – variable resistor network – binary ladder – D/A converter – D/A accuracy and resolution – A/D converter – simultaneous conversion – A/D accuracy and resolution.

UNIT – V: INTRODUCTION TO MICROPROCESSOR 8085 (15 hours)

Basics of semiconductor memory- RAM, ROM, PROM and EPROM. Microcomputer organization-8085 Microprocessor-pin functions-architecture-machine and assembly language-programmer's model of 8085-8085 addressing modes. Classification of instruction and format – 8-bit data transfer and arithmetic instructions.

TEXT BOOKS

- 1. Arul Thalapapathi, *Fundamentals of Digital Computers*, Comptek Publishers, Chennai, 1995.
- 2. Vijayendran, *Fundamentals of Microprocessor 8085*, S. Viswanathan Pvt.Ltd, 2006.
- 3. Vijayendiran, *Integrated Electronics*, Viswanathan, S., Printers & Publishers Pvt. Ltd., 2009.
- 4. Nagoor Kani, Microprocessor, RBA Publications, 2016.
- 5. B. Ram, *Introduction to Microprocessor and Microcontroller,* Dhanpat Rai Publications, 2012.

- 1. Malvino and Leech, *Digital Principles and Application*, 4th Edition, Tata Mcgraw Hill, New Delhi, 2000.
- 2. Millman and Halkias, *Integrated Electronics*, International Edition, McGraw Hill, New Delhi, 1972.
- 3. T. C. Bartee, Computer Architecture and Logic Design, McGraw Hill, 1991.
- 4. J.P. Agarwal and Anit Agarwal, *Solid State Electronics*, Pragati Prakashan, 2nd Edition, 2014.
- 5. Herbert Taub and Donald Schilling, *Digital Integrated Electronics*, McGraw Hill, 1st Edition, 2008.
- 6. Anokh Singh and A. K. Chhabra, *Fundamentals of Digital Electronics and Microprocessors*, 2nd Revised and Enlarged Ed., 2. Chand & Co. Ltd., New Delhi, 2005.
- 7. Floyd, *Digital Fundamentals*, Pearson Education, 8th Edition, S. Chand Publications, 2004.

YEAR-	Cou	rse Co	de:		/WK	CREDIT						
III	191	EPH51	В	NU	MERIC	CAL M	ETHOD	S & BA	SIC		4	3
SEM- V				(COMPU	TER P	ROGRA	AMMIN	\mathbf{G}			
						ELEC'	TIVE-II	3				
Course Ou	tcome	s										
CO1	To Lo	earn the	e Solve	vario	ous Func	lamenta	ıl mather	natical e	quations	S		
CO2	To St	tudy the	e funct	ions c	of Interp	olation	methods					
CO3	Acqu	ring th	ne knov	vledg	e about	Numer	ical integ	gration &	& Differe	entiation	<u> </u>	
CO4	To Lo	earn th	e Basi	c of C	Langua	age						
CO5	To Pı	rocure	the co	ncepts	s of Con	trol Sta	tements	in C Lar	iguage			
]	Mappi	ng of c	ourse	e outcon	nes witl	h the pr	ogram s	pecific (outcome	es	
Course	Prog	gramm	ne Out	come	s POs	Pro	ogramm	e Speci	ic Outc	omes P	SOs	Mean
Outcomes												Score of
Cos												CO's
	PO1	PO2	PO3	PO4	PO4 PO5 PSO1 PSO2 PSO3 PSO4 PSO5						PSO6	
CO1	1.1	3.8	1.1	3.4	3.5	3.4	4.3	4.6	3.2	3.3	2.1	3.07
CO2	2.2	3.6	1.1	3.5	2.8	3.6	4.4	4.2	3.5	3.5	1.1	3.04
CO3	2.1	3.7	1.1	3.1	3.3	3.3	4.1	4.8	3.3	3.6	1.1	3.04
CO4	3.4	4.4	1.0	4.6	3.5	4.2	4.1	3.3	2.1	3.8	2.2	3.32
CO5	3.6	4.0	1.0	4.7	3.6	4.0	4.3	4.5	2.0	4.4	2.1	3.47
				N	Mean Ov	erall Sc	core					2.926
			Res	sult: 7	The Sco	re for t	his cour	se is Mo	derate			
Mapping	1-20% 21-40% 41-60% 61-80% 81-100%											-100%
Scale		-	1		2		3		4			5
Relation		0.0	-1.0		1.1-2.0)	2.1-3.0		3.1-4	.0	4	.1-5.0
Quality		Very	Poor		Poor		Moderat	e	Higl	h	Ve	ry High
	•					Value S	Scaling	•			•	
Mean S	core of	COs=	Total N	tal Vai	lues Os & PSOs		Mean	Overall	Score of	f COs=	Total Mea Total No.	

UNIT 1: SOLUTION OF EQUATION

(15 hours)

Eigen values, Eigen vectors, Cayley Hamilton; characteristic equation of a matrix –Solution of simultaneous equations – Gauss elimination method – Gauss-Jordan method.

UNIT 2: INTERPOLATION

(15 hours)

Linear and Lagrange interpolation — Newton's forward & backward interpolation polynomial equation & determination of roots — Newton-Raphson method.

UNIT 3: NUMERICAL INTEGRATION AND DIFFERENTIATION (15 hours)

Trapezoidal rule – Simpson rule 1/3 & 3/8 – Solution of first & second order differential equation: Taylor series – Euler's method (Improved & Modified) – Solutions of forth order Runge-Kutta method.

UNIT 4: DATA TYPE OPERATORS

(15 hours)

History & Features of C Language - Variable name – data type and sizes – declaration – arithmetic, relational and logical operators – perecedence and order of evaluation.

UNIT 5: CONTROL STATEMENTS

(15 hours)

Unconditional control statements – GOTO and labels – Conditional control statements – simple IF, IF..ELSE, nested IF..ELSE, ELSE IF ladder – switch case – break – continue statement. Looping statement – while – do..while – for – nested for loop – (Basic Programs - Qualitative studies only)

TEXT BOOKS

- 1. S.S. Sastry, *Numerical Methods*, Prentice Hall India Learning Private Limited; Fifth edition 2012.
- 2. Venkataraman, *Numerical Methods*, The National Publishing Company, Madras, 1999.
- 3. Thilagavathi, *Numerical Methods*, Published by S. Chand & Company Ltd., 2013.
- 4. Kandasamy, *Numerical Methods*, S Chand & Company; Reprint 6th Edition, 2006
- 5. E. Balagurusamy, *ANSI-C*, McGraw Hill Education India Private Limited; Seventh Edition, 2016.

- 1. Satya Prakash, *Mathematical Physics*, 4th Ed., Sultan Chand & Sons Publication, New Delhi, 2014.
- 2. A. Singaravelu, Numerical methods, 1st Ed., Meenakshi Publication, Tamil Nadu, 2008.
- 3. Yeshwant kanitkar, *Let us 'C'*, BPB Publications; Thirteenth Revised and Updated Edition, 2016.
- 4. Kuo-Addison, *Numerical Methods and Computers*, Wesely London, 1966.

YEAR-	Course Code: Course Title: HRS/WK 19EPH52A GEOPHYSICS 5										/WK	CREDIT
III	19I	EPH52	A			GEOP	HYSIC	S		4	5	3
SEM- V						ELEC'	TIVE-20	\mathbb{C}				
Course Ou	tcome	S	I									
CO1	To kr	now the	e infori	nation	about 1	the eartl	h and sol	ar syste	n			
CO2	To Lo	earn the	e interp	oretati	on of M	athema	tical fun	ctions in	geograp	hical fie	elds	
CO3	Obtai	ning th	ne knov	wledge	about	the Ma	gnetic fi	eld on ea	arth			
CO4	To Le	earn th	e conc	epts o	f Sesim	ology						
CO5	To Lo	earn th	e basio	es of C	Geodyna	mics						
	I	Mappi	ng of c	course	outcon	nes wit	h the pr	ogram s	pecific o	outcome	es	
Course	Prog	gramn	ne Out	comes	s POs	Pr	ogramm	e Speci	fic Outc	omes PS	SOs	Mean
Outcomes												Score of
COs												CO's
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO1 PSO2 PSO3 PSO4 PSO5 PSO6					
CO1	1.4	3.3	1.1	3.1	2.3	4.2	4.2	4.1	3.8	4.7	2.3	3.13
CO2	1.2	3.5	1.3	3.2	2.6	4.4	4.3	4.1	3.9	4.2	2.1	3.16
CO3	1.6	3.8	1.4	3.2	2.6	4.8	4.6	3.9	3.8	4.0	2.4	3.28
CO4	1.8	3.8	1.4	3.2	2.4	4.5	4.1	3.9	4.2	3.5	2.1	3.17
CO5	1.2	3.6	1.1	3.3	2.9	4.1	4.4	4.0	4.1	4.3	2.1	3.19
	.1		l	N	Iean Ov	erall So	core		l		l	3.186
			Res	sult: T	The Sco	re for t	his cour	se is Mo	derate			
Mapping		1-20% 21-40% 41-60% 61-80% 81-100%										
Scale			1		2		3		4			5
Relation		0.0	-1.0		1.1-2.0)	2.1-3.0		3.1-4	.0	4	.1-5.0
Quality		Very	Poor		Poor		Moderat	e	Higl	1	Ve	ry High
	1			1		Value S	Scaling	L			1	
Mean Score of $COs = \frac{Total Values}{Total No. of POs \& PSOs}$ Mean Overall Score of $COs = \frac{Total Mean Scores}{Total No. of COs}$												

UNIT 1: THE EARTH IN THE SOLAR SYSTEM

(15 Hours)

Solar System Formation, Accretion, and the Early Thermal State of the Earth-Rotation and Angular Momentum- The Sun-Planetary Formation-Early Thermal State of the Earth- Radioactive Decay-Radiometric Dating- Radioactivity as a Heat Source-Meteorites and the Bulk Composition of the Earth-Chondrites-Secondary Processing-Achondrites-Irons and Stony-Irons-The Terrestrial Planets-One-dimensional Earth's Structure-Lateral Heterogeneity in the Mantle

UNIT 2: THE EARTH'S GRAVITATIONAL FIELD

(15 Hours)

Global Gravity, Potentials, Figure of the Earth, Geoid-Gravitational Potential due to Nearly Spherical Body-The Poisson and Laplace Equations-Cartesian and Spherical Coordinate Systems-Spherical Harmonics-Global Gravity Anomalies-Gravity Anomalies and the Reduction of Gravity Data- Correlation between Gravity Anomalies and Topography-Flexure and Gravity.

UNIT 3: THE MAGNETIC FIELD OF THE EARTH

(15 Hours)

The Main Field-The Internal Field- The External Field-The Magnetic Induction due to a Magnetic Dipole-Magnetic Potential due to More Complex Configurations-Power Spectrum of the Magnetic Field-Downward Continuation-Secular Variation.

UNIT 4: SEISMOLOGY

(15 Hours)

Introduction- Strain-Stress-Equations of Motion, Wave Equation, P and S-waves- From Vector to Scalar Potentials — Polarization-Solution by Separation of Variables- Plane Waves- Snell's Law-Fermat's Principle and Snell's Law- Ray Geometries of the Wave Field-Travel Time Curves and Radial Earth Structure-Surface Waves- Sensitivity Kernels-Excitation of Surface Waves-Dispersion: Phase and Group Velocity-Dispersion Curves- Seismology: Free Oscillation

UNIT 5: GEODYNAMICS

(15 Hours)

Heat Flow- Heat Flow, Geothermal Gradient, Diffusion-Thermal Structure of the Oceanic Lithosphere-Thermal Structure of the Oceanic Lithosphere (cont.)-Bending, or Flexure, of Thin Elastic Plate-The Upper Mantle Transition Zone.

Text Books:

- 1. Lowrie, William. Fundamentals of Geophysics. Cambridge, UK: Cambridge University Press, September 1997.
- 2. Fowler, C. M. R. The Solid Earth: An Introduction to Global Geophysics. Second Edition. Cambridge, UK: Cambridge University Press, 2004,

- 3. Stacey, F. D. Physics of the Earth. 3rd ed. Brisbane, Australia: Brookfield Press, 1992.
- 4. Sleep, Norman H., Kazuya Fujita, and K. Fujita. Principles of Geophysics. Malden, MA: Blackwell Science, 1997

Reference Books:

- 1. Turcotte, Donald L., and Gerald Schubert. Geodynamics. 2nd ed. Cambridge, UK: Cambridge University Press, 2001.
- 2. Stein, Seth, and Michael Wysession. An Introduction to Seismology, Earthquakes and Earth Structure. Malden, MA: Blackwell Science, 2002.
- 3. Anderson, Don. Theory of the Earth. Malden, MA: Blackwell Science, 1990.
- 4. Merrill, Ronald T., et al. The Magnetic Field of the Earth. Burlington, MA: Academic Press, September 15, 1998.

Cou	Course Code: Course Title: HRS/WK 19EPH52B FIRER OPTIC COMMUNICATION 5											
191	E PH52	В	FIB	ER OF	TIC C	OMMU:	NICAT	ION	4	5	3	
					ELECT	TIVE- 2	D					
tcome	S	l							l			
To ur	ndersta	nd the	basics	of option	c fibers							
To st	udy the	inform	nation	about t	he char	acteristic	s of fib	er optics				
To O	btain tl	ne knov	wledge	e about	the Co	nmunica	ation pro	ocesses				
To st	study the functions of couplers and connectors											
Procu	rocuring the functions of Analog and Digital Links											
]	Mappi	ng of c	ourse	outcon	nes witl	n the pro	ogram s	specific o	outcome	es		
Prog	gramm	ne Out	comes	POs	Pro	ogramm	e Speci	fic Outc	omes PS	SOs	Mean	
											Score of	
											CO's	
PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6		
1.1	3.5	1.2	3.3	2.2	4.4	4.3	4.1	4.5	3.6	2.4	3.14	
1.2	3.8	1.3	3.3	2.1	3.9	3.7	3.7	3.9	3.7	2.2	2.98	
1.6	3.8	1.2	3.1	2.3	4.8	4.1	3.8	3.8	3.9	2.5	3.17	
1.2	3.4	1.6	3.6	2.5	3.9	4.2	4.6	4.3	4.6	2.2	2.95	
1.4	4.0	1.1	3.7	2.2	4.0	3.9	4.2	4.5	4.3	2.1	3.21	
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UNIT - I: OPTIC FIBERS

(15 hours)

Fiber optic revolution – basic characteristics of optical fiber – acceptance angle – numerical aperture – propagation of light through optical fiber – theory of mode formation – classification of fibers – step index and graded index fibers – single mode and multi mode fibers –

UNIT - II: TRANSMISSION CHARACTERISTICS OF OPTICAL FIBERS (15 hours)

Introduction, Attenuation, absorption, scattering losses, bending loss, dispersion, Intra model dispersion.

UNIT - III: FIBER OPTIC COMMUNICATION

(15 hours)

Source and detectors for fiber optic communication – Laser and LED – Analog and digital modulation methods – principle of optical detection – pin and APD photo detectors – Noise – Design consideration of a fiber optic communication system.

UNIT – IV: FIBER COUPLERS AND CONNECTORS

(15 hours)

Introduction, fiber alignment and joint loss, single mode fiber joints, fiber splices, fiber connectors and fiber couplers.

UNIT - V: ANALOG AND DIGITAL LINKS

(15 hours)

Analog links – Introduction, overview of analog links, CNR, multichannel transmission techniques, RF over fiber, key link parameters, Radio over fiber links, microwave photonics. Digital links – Introduction, point—to—point links, System considerations, link power budget, resistive budget, short wave length band and transmission distance for single mode fibers, Power penalties, nodal noise and chirping.

TEXT BOOKS

- 1. R. Murugeshan, *Modern Physics*, S. Chand & Co., 2009.
- 2. Senthil Kumar, Engineering Physics, VRB Publishers Pvt. Ltd., 2013.
- 3. Senior, Optical Fiber Communications: Principles and Practice, 3e: Third edition, Pearson, 2010
- 4. Sarkar Subir Kumar, Optical Fibres and Fibre Optic Communication Systems S. Chand, 2010

REFERENCE BOOKS

1. John M. Senior, *Optical Fiber Communications*, Cambridge University Press, 1996.

- 2. Govind P. Agrawal, *Fiber Optic Communication Systems*, John- Willey & Sons, 2007.
- 3. P. K. Palanisamy, *Physics for Engineering*, Scitech publishing Pvt. Ltd., Chennai, 2009.

YEAR-	Course Code: Course Title: HRS/WK										CREDIT		
III	19	SPH5	1		ELE	ECTRIC	CAL WIR	ING			5	4	
SEM- V						ELEC	TIVE- 2	D					
Course Ou	tcome	S											
CO1	To U	ndersta	ınd diff	ferent	method	s of ele	ectricity g	eneratio	n and ty	pes of m	notors.		
CO2	To St	tudy the	e electr	rical co	ompone	ents, sy	mbols, ty	pes of c	ircuits ar	nd tools			
CO3	To St	tudy the	e vario	us met	thods of	f joinin	g conduc	tors and	electric	al access	sories		
CO4	To Lo	earn the	e meth	ods of	wiring	a hous	e and ind	ustry					
CO5	1	o Hands on training on house wiring and troubleshooting the electrical circuits and											
	applia	opliances											
		Mapping of course outcomes with the program specific outcomes											
Course	Prog	rogramme Outcomes POs Programme Specific Outcomes PSOs Mean											
Outcomes		Score of											
COs												CO's	
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6		
CO1	2.1	3.5	2.2	3.3	3.5	3.6	4.3	3.6	4.2	4.3	1.1	3.24	
CO2	3.2	3.8	2.3	3.5	2.8	3.4	4.4	3.2	4.6	4.7	1.2	3.43	
CO3	1.1	3.6	1.2	3.1	3.3	3.8	4.1	3.8	4.4	4.4	1.5	3.11	
CO4	4.0	3.4	1.4	2.6	3.5	3.8	4.6	3.3	4.3	4.1	1.2	3.29	
CO5	2.4	4.0	1.3	3.7	3.6	4.0	4.4	4.3	4.3	4.0	1.1	3.37	
					Iean Ov							3.304	
			I.	Result	: The S	core fo	or this co	urse is l	High				
Mapping		1-2	0%		21-409	6	41-60%		61-80)%	81	-100%	
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Relation		0.0-1.0 1.1-2			1.1-2.0	0	2.1-3.0		3.1-4	.0	4	.1-5.0	
Quality		Very	Poor		Poor		Moderat	e	Higl	h	Ve	ry High	
	Value Scaling												
Mean S	core of	COs=		o.of PO	ues s & PSOs		Mean	Overall	Score of	f COs=	Total Mea Total No.		

Unit-I:ELECTRICITY GENERATION

(12 Hours)

Fundamentals of electricity - Current, Voltage, resistance - Ohm's law - Power - Kilowatt hour - Watt meter - Electrical measurements - Electric power generation by Thermal, hydro, atomic and nuclear methods - Batteries - Generators - Study of Generator.

Unit-II:ELECTRIC CIRCUITS AND DISTRIBUTION

(12 Hours)

Symbols of electrical parameters - Importance Series, Parallel connections -Ac and DC - Conductors - Inductor, Conductors - Inductor, Capacitor and transformer - Distribution methods - single phase and three phase - Star and delta connections - Rules of electric connections - SWG -Motors - Study of motor, series and parallel circuits.

Unit-III:ELECTRICAL WIRING -I

(12 Hours)

Tools - Methods of Joining conductors - House wiring methods - Gilt, wood casing, Tough - Rubber sheathed, conduit or PVC pipe and concealed – Switches - ceiling roze - lamp holders, sockets - Fuse base - Distribution box—Trip switches - Earth connection -Experimental study of house wiring.

Unit-IV: ELECTRICAL WIRING-II

(12 Hours)

Main board preparation - Distribution - Cut - out preparation - Switch board preparation - Power factor -IEE regulations - Safety precautions —Testing the insulation -Experimental study of main, distribution and switch boards.

Unit-V:ELECTRICAL APPLIANCES

(12 Hours)

Tungsten - filament bulb - tube light -mercury and sodium vapour lamp -LED lamp - heater - iron box - table fan - ceiling fan - battery eliminator -electrical requirement to washing machine and refrigerator - procedure to rectify the electrical faults in electrical appliances.

Textbook:

Course material prepared by the Department.

YEAR-	Co	ourse (Code:		/WK	CREDIT							
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SEM- VI						MEC	:H	ANICS A	AND				
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CO1	1		ad tha	oonoo	ept of Re	lotivi	tx,						
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CO2					& prope								
CO3					rodinger				s applic	ations			
CO4	To st	udy the	mathe	ematio	cal funct	ions i	n p	physics					
CO5	To G	ain the	knowl	edge	about th	e spe	cia	l functio	ns				
	I	Mappi	ng of c	ours	e outcon	nes w	ith	the pro	gram s	pecific o	outcome	es	
Course	Prog	gramm	e Out	come	s POs	I	Pro	gramm	e Speci	fic Outc	omes P	SOs	Mean
Outcomes													Score of
COs									CO's				
	PO1	PO2	PO3	PO4	PO5	PSC	1	PSO2	PSO3	PSO4	PSO5	PSO6	
CO1	3.2	2.8	4.1	3.5	3	2.8	}	3.5	3.1	4	3.4	3.2	3.32
CO2	3.5	3.2	3	3	3.5	3.6)	4	3.6	3	2.6	3.5	3.31
CO3	3.5	4.2	3.2	2.8	3	3.2)	3	3.5	3.7	3.5	3.2	3.34
CO4	3.2	3.6	3	4	3	3.5	j	3.5	2.8	3.5	3.1	3.6	3.34
CO5	4.1	3.5	3.7	3.2	3.5	2.5	í	3.5	3	4.1	3.2	3.5	3.43
		<u> </u>		N	Mean Ov	erall	Sc	ore		l	<u> </u>	I	3.34
			F	Resul	t: The S	core	for	this co	urse is l	High			
Mapping		1-20% 21-40% 41-60% 61-80% 81-100%											
Scale		1	1		2			3		4			5
Relation		0.0	-1.0		1.1-2.0)		2.1-3.0		3.1-4	.0	4	.1-5.0
Quality		Very	Poor		Poor		1	Moderat	e	High	n	Ve	ry High
	<u> </u>					Value	e S	caling				<u> </u>	
Mean So	core of	COs=		tal Va o.of P(lues Os & PSOs			Mean	Overall	Score of	f COs=	Total Mea Total No.	

UNIT - I: RELATIVITY

(15 hours)

Frames of references – Michelson – Morley experiment – significance of negative result – postulates of special theory of relativity – Lorentz transformation equations – Length contraction – Time dilation – Relativity of simultaneity – Law of addition of velocities – variation of mass with velocity – relativistic kinetic energy equations – postulates of general theory of relativity – gravitational red shift.

UNIT - II WAVE MECHANICS

(15 hours)

Matter Waves – de Brogile wavelength – wave velocity and group velocity – Heisenberg's Uncertainty principle – proof of Uncertainty principle for one dimensional wave packet – postulates of wave mechanics – properties of wave function – operator formalism (Basics only)– eigen functions – eigen values – expectation values.

UNIT - III : SCHRÖDINGER EQUATIONS AND ITS APPLICATIONS (15 hours)

Schrödinger equation – time dependent and time independent – application of Schrödinger equations – linear harmonic oscillator – zero point energy – particle in a one dimensional box – barrier penetration and tunneling effect rigid rotator – hydrogen atom.

UNIT - IV: MATHEMATICAL PHYSICS

(15 hours)

Gauss divergence theorem – stokes theorem – Greens theorem – applications of vectors to hydrodynamics.

Spherical polar coordinates — expressions for gradient, div in Cartesian & spherical coordinates.

UNIT - V: SPECIAL FUNCTIONS

(15 hours)

Beta and gamma functions— relation between them — harmonics-Bessel's differential equations — Legendre's differential equations — Hermite's differential equations — Laguerre's differential equations — series solutions.

TEXT BOOKS

- 1. V. Devanathan, Quantum Mechanics, Narosa, Chennai, 2005.
- 2. R. Murugeshan, Kiruthigs, Sivaprasath, *Modern Physics*, S Chand & Co., 2007.
- 3. V. K. Thangappan, Quantum Mechanics, Wiley Eastern, 1985.
- 4. P. M. Mathews and Venkatesan, *A Text Book of Quantum Mechanics*, McGraw Hill, 1978.
- 5. Sathya Prakash, *Mathematical Physics*, Sultan Chand & Sons, 6th Revised Edition Reprint 2014.
- 6. R. Murugeshan, *Mechanics and Mathematical Methods,* S Chand Publishing & Co., 2015.

- 1. B. D. Gupta, *Mathematical Physics*, Vikas Publishing House; Fourth Edition, 2009.
- 2. Ghatak and Loganathan, *Quantum Mechanics*, McMillan, 2004.
- 3. A. Ghatak, Basic Quantum Mechanics, McMillan India, 2002.
- 4. Murray Spiegal, *Introduction to Boundary Value Problems* (Scahaum's Series), McGraw-Hill Education; 1st Edition, 1974.

YEAR-	Co	ourse (Code:			Cou	ırse Titl	e:		HRS	/WK	CREDIT	
III		19РН6	512		NU		R &RAD	_	N		5	5	
SEM- VI						Pl	HYSICS	}					
Course Ou	tcome	S										<u> </u>	
CO1	To ur	ndersta	nd the	Basic	concept	Nuclea	ar Structi	ure					
CO2	ТоА	cquire	knowle	edge a	bout R	adio Ac	tive Dec	ay					
CO3	Unde	rstandi	ng the	Const	ruction	& Wor	king of v	arious F	Particle A	Accelera	tors		
CO4	To st	udy the	Work	ing of	Nuclea	r reacto	ors & Rad	diation					
CO5	To st	udy the	Basic	Class	ificatio	n of Ele	mentary	Particle	S				
]	Mappi	ng of c	ourse	outcon	nes witl	h the pr	ogram s	pecific o	outcome	es		
Course	Prog	gramn	ne Out	comes	POs	Pro	ogramm	e Speci	fic Outc	omes P	SOs	Mean	
Outcomes					Score of								
COs						CO's							
	PO1	PO2	PO3	PO4	PO5	PSO1	SO1 PSO2 PSO3 PSO4 PSO5 PSO6						
CO1	3.2	3.8	4.1	3.5	3	2.8	3.5	3.1	4	3	3.2	3.38	
CO2	3.5	3.2	3.2	3	3.5	3.6	4	3.6	3	2.6	3.8	3.36	
CO3	3.5	4.1	3.2	2.6	3	3.2	3	3.5	3.5	3.5	3	3.28	
CO4	3.2	3.8	3	4	3	4	3.5	2.8	3.5	3	3.6	3.4	
CO5	4	3.5	3.5	3.2	3.5	2.5	3.5	3	4	3	3.5	3.38	
				N	Iean Ov	erall Sc	core					3.36	
			I	Result	: The S	core fo	r this co	urse is l	High				
Mapping		1-20% 21-40% 41-60% 61-80% 81-100%										-100%	
Scale			1		2		3		4			5	
Relation		0.0	-1.0		1.1-2.0)	2.1-3.0		3.1-4	.0	4	.1-5.0	
Quality		Very	Poor		Poor		Moderat	e	Higl	ı	Ve	ry High	
	•			•		Value S	Scaling				•		
Mean S	core of	COs=		tal Val	ues s & PSOs		Mean	Overall	Score of	f COs=	Total Mea Total No.		

UNIT - 1: NUCLEAR STRUCTURE

(15 hours)

Nuclear spin – determination of magnetic dipole moment, electric quadruple moment, parity of nuclei, isospin, theories of nuclear composition, proton and electron hypothesis, proton – neutron hypothesis, nuclear forces – meson theory of nuclear forces.

Liquid drop model – Bethe Weizacker's mass formula – application to alpha decay – Bohr – Wheeler theory – shell model – evidences – theory – energy level diagram – spin orbit interaction – magic numbers – nuclear stability.

UNIT - II : RADIOACTIVE DECAY

(15 hours)

Radioactive disintegration – law of successive disintegration – transport and secular equilibrium – radioactive series – Geiger – Nuttal law – Age of earth – alpha particle disintegration energy – alpha particle spectra – theory of alpha decay (Qualitative treatment).

Beta ray spectra – origin – neutrino theory of beta decay – electron capture – gamma rays – determination of wavelength by Diamond – crystal spectrometer – nuclear isomerism.

UNIT - III: PARTICLE ACCELERATORS AND DETECTORS (15 hours)

Cyclotron – synchrocyclotron – Betatron – electron synchrotron – proton synchrotron (Bevatron)-GM counter – ionization chamber – bubble chamber – scintillation counter – photographic emulsion techniques.

UNIT - IV: REACTORS AND RADIATION PHYSICS (15 hours)

Nuclear fission — Chain reaction — four-factor formula — reactor theory — critical size of a reactor — general aspect of reactor design — reactor shielding — reactor control — classification of reactors — pressurized heavy water reactor — fast breeder reactor-Introduction to recent rectors.

Radiation hazards — biological effects of radiation - radiation sickness — radiation units and operational limits radiation survey meters — pocket dosimeter —control of radiation hazards — radiation therapy — radioisotopes used for therapy — nuclear medicine — industrial applications — food preservatives.

UNIT - V : ELEMENTARY PARTICLES

(15 hours)

Classification – types of interaction – symmetry and conservation laws – hadrons – leptons – baryons – mesons – strangeness – hyperons – antiparticles – antimatter – basic ideas about quarks – types of quarks.

TEXT BOOKS

- 1. Brijlal and N.Subramaniam-Modern Physics
- 2. D.C. Tayal, Nuclear Physics, Himalaya Publishing House, 2011.
- 3. R. Murugeshan, *Modern Physics*, S. Chand & Co., 2009.
- 4. R. Murugeshan & Kiruthiga, Sivaprasath, *Modern Physics*, S. Chand & Co., 2009.
- 5. Thayalan, *Basic Radiological Physics*, Jaypee Brothers Medical Publishers Pvt. Ltd, 1st Edition, 2009.

- 1. S. N. Ghoshal, *Nuclear Physics*, S Chand & Co. Edition, 2003.
- 2. M. L. Pandya, R.P.S. Yadav, *Elements of Nuclear Physics*, Kedar Nath & Ram Nath Publishers, 2000.
- 3. Irving Kaplan, *Nuclear Physics*, Narosa, 2002.
- 4. Nuclear Physics J B Rajam, S chand Publishing Co.
- 5. Littlefield & Thorley, *Atomic and Nuclear Physics*, Springer, 3rd Ed. 1979.

YEAR-	Course Code: Course Title: HRS/WK 19EPH63A ASTROPHYSICS 5										WK	CREDIT
III	19 I	ЕРН63	A		AS	STROP	HYSIC	S		5		4
SEM-VI												
Course Ou	tcome	S	I						I			
CO1	Study	about	the Hi	story c	of Astro	nomy a	nd Celes	stial Me	chanics			
CO2	Learn	the co	ncepts	of asti	ronomi	cal instr	umentat	ion				
CO3	Acqu	ire Kno	owledg	ge of St	ellar M	Iagnitud	les and C	Colors				
CO4	Be fa	miliar	with th	e Stell	ar struc	cture						
CO5	Apply	y the k	nowled	lge of S	Stellar	evolutio	n					
	I	Mappi	ng of c	course	outcor	nes with	the pr	ogram s	pecific o	outcome	es	
Course	Prog	gramn	ne Out	comes	POs	Pro	ogramm	e Speci	fic Outc	omes PS	SOs	Mean
Outcomes												Score of
COs												CO's
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	
CO1	3	3.8	4	3.5	3.5	2.8	3.5	3	4	3	3.5	3.41
CO2	3.8	3.2	3	3	3.5	3.6	4	3.5	3	2.6	3.5	3.33
CO3	3.5	4	3.2	2.5	3	3	3	3.5	3.5	3	3	3.2
CO4	3	3.8	3	3.8	3	4	3	2.8	3.5	3	3.5	3.30
CO5	4	2.5	3.5	3	3.5	2.5	3.5	3	3	3	2.5	3.09
	1			M	ean Ov	erall Sc	core	•				3.27
			I	Result:	The S	core for	r this co	urse is l	High			1
Mapping	1-20% 21-40% 41-60% 61-80% 81-1009										-100%	
Scale			1		2		3		4			5
Relation		0.0	-1.0		1.1-2.0)	2.1-3.0		3.1-4	.0	4	.1-5.0
Quality		Very	Poor		Poor		Moderat	e	Higl	n	Ve	ry High
	1			1		Value S	caling	I			ı	
Mean Score of $COs = \frac{Total Values}{Total No. of POs \& PSOs}$ Mean Overall Score of $COs = \frac{Total Mean Score}{Total No. of COs}$											-	

UNIT I: ASTRONOMY (15 Hours)

History of Astronomy Celestial Mechanics; Distances in Astronomy; Magnitude Scale; Color-index Size and Time Scales

UNIT II: ASTRONOMICAL INSTRUMENTATION (15 Hours)

Basic Optics; Optical Telescopes; Radio Telescopes; Infrared, Ultraviolet, X-ray, and Gamma-Ray Astronomy

UNIT III: STARS (15 Hours)

Stellar Magnitudes and Colors, Brightness and distance, Luminosity, temperature and spectral class, the motion of stars relative to the Sun, the masses of stars,

UNIT IV : STELLAR STRUCTURE

(15 Hours)

Equations of Stellar Structure – Solutions to Equations of Stellar Structure, Toy Stellar Models: Homologous Stellar Models, the Radiative Stellar Envelope, and Fully Convective Stars with H[~] Opacity, Observational Aspects of Stellar Atmospheres, Continuum Radiation, and Lines

UNIT V: STELLAR EVOLUTION

(15 Hours)

Stellar Clusters Evolution of massive stars, Supernovae, Gamma-Ray bursts White Dwarfs, Chandrasekhar Limit, Neutron Stars, Pulsars GTR, Black holes.

TEXT BOOKS:

- 1. Bradley Carroll & Dale Ostlie, An Introduction to Modern Astrophysics , 2006.
- 2. T Padmanabhan, Theoretical Astrophysics: Vol. I-II-III, Cambridge University Press (2005).
- 3. WM Smart and R M Greene, Textbook on Spherical Astronomy, Cambridge University Press (1986)Sixth Edition.
- 4. Frank Shu, The Physical Universe, University of California (1982).
- 5. Roy A E and Clarke D, Astronomy principles and Practice, Institute of Physics (2003) Fourth Edition.
- 6. Swapan K Saha, Diffraction-limited imaging with large and moderate telescopes, World Scientific, (2007).

- 1. Chandrasekhar S, An Introduction to the Study of Stellar Structure, Dover Publications (1967).
- 2. Clayton D D, Principles of Stellar Evolution and Nucleosynthesis, University of Chicago Press(1983).
- 3. Kippenhahn and Weigert, Stellar Structure and Evolution, Springer (1990).
- 4. Binney, J. and Tremaine S., Galactic, Dynamics, Princeton University Press (1994).
- 5. Binney J, and Merrifield, Galactic Astronomy, Princeton University Press (1998).
- 6. K.D. Abhyankar, Astrophysics (Stars and Galaxies), Tata McGraw Hill (1992).
- 7. Baidyanath Basu, An Introduction to Astrophysics, Prentice Hall of India (2003).
- 8. Jayant V Narlikar, An Introduction to Cosmology, Cambridge University Press (2004).

19F	ЕРН63	Course Code: Course Title: HRS/WK										
	19EPH63B ENERGY PHYSICS 5										4	
comes	5										<u> </u>	
Study	about	the Co	nvent	ional E	nergy S	ources						
Learn	about	the No	on-Cor	ventio	nal Enei	gy Sour	ces					
Acqu	ire Kno	owledg	e of B	iomass	energy							
Be fa	miliar	with th	e Geo	thermal	energy							
Apply	y the ki	nowled	lge of	Energy	storage	and imp	oacts of	Non-con	ventiona	al energy	7	
ľ	Mappi	ng of c	ourse	outcon	nes witl	h the pr	ogram s	pecific (outcome	es		
Prog	gramm	e Out	comes	POs	Pro	ogramm	e Speci	fic Outc	omes PS	SOs	Mean	
				Score of								
					Co							
PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6		
3	2.5	4.1	3.5	3	2.5	3	3.1	4	3.2	3.2	3.19	
3.3	3.2	3	3	3.5	2.8	4	3.6	3	2.3	3.5	3.2	
3.5	4.2	3.5	2.8	3	3.2	3.5	3.5	3.7	4	3.2	3.46	
3.2	3.8	3	4.2	3	3.5	3.5	2.8	3.6	3.5	3.6	3.42	
4.3	3.5	3.7	3.2	3.8	2.5	3.5	3.2	4.3	3.2	3.5	3.51	
			N	Iean Ov	erall Sc	core	J	l	J	l	3.36	
		ŀ	Result	The S	core for	r this co	urse is l	High			1	
	1-20% 21-40% 41-60% 61-80% 81-100%											
	-	1		2		3		4			5	
	0.0	-1.0		1.1-2.0)	2.1-3.0		3.1-4	.0	4	.1-5.0	
	Very	Poor		Poor		Moderat	e	High	h	Vei	ry High	
ı					Value S	Scaling	L			1		
ore of	COs=					Mean	Overall	Score o	$f COs = \frac{7}{2}$			
	Study Learn Acqu Be fa Apply Prog PO1 3 3.3 3.5 3.2 4.3	Study about	Study about the Collins	Study about the Convent: Learn about the Non-Cor	Study about the Conventional Endage Conv	Study about the Conventional Energy State	Study about the Conventional Energy Sources	Core of COs Post Core of Cos Post Post	Core of COs Study about the Conventional Energy Sources	Study about the Conventional Energy Sources	Study about the Conventional Energy Sources	

UNIT I (15 hours)

Conventional Energy Sources: World's reserve of commercial energy sources and their availability-various forms of energy- renewable and conventional energy systems- comparison and natural gas — availability —statistical details-applications- merits and demerits

UNIT II (15 hours)

Non-Conventional Energy Sources: Renewable energy sources- solar energynature of solar radiation- components-solar heaters- crop dryers- space cooling-solar ponds-solar cookers-water desalination- photovoltaic generation basics- merits and demerits of solar energy

UNIT III (15 hours)

Biomass energy-classification- photosynthesis- biomass conversion processgobar gas plants- wood gasification- ethanol from wood- advantages and disadvantages of biomass as energy source

UNIT IV (15 hours)

Geothermal energy- wind energy- ocean thermal energy conversion(OTEC)energy from waves and tides(basic ideas, nature, applications, merits and demerits)

UNIT V (15 hours)

Energy storage and impacts of Non-conventional energy: Conversion of energy- patterns of energy consumption in domestic, industrial, transpotation, agricultural sectors- conservation principles in these sectors- energy crisis and possible solutions- energy options for the developing countries- energy storage and hydrogen as a fuel (basics)-impact due to non-conventional energy sources-global warming

TEXT BOOKS

1. Rajamaanar, 2004, Environmental Studies.

REFERENCE BOOKS

1. Sukhatme, Solar Energy, McGraw-Hill Inc., US, 2nd Revised Edition,1997.

YEAR-	Course Code: Course Title: HRS/WK								CREDIT				
III	19	SPH61	1		COMI	PUTER	LITER	ACY		4		2	
SEM- VI													
Course Ou	tcome	S							<u> </u>				
CO1	To in	npart ba	asic lev	el app	reciatio	on progi	ramme fo	or the co	mmon n	nan.			
CO2	To us	se the c	ompute	er for	basic pu	ırposes	of prepa	ring his	personn	el/busine	ess		
CO3	To he	lps the	small	busine	ess com	munitie	es, to mai	intain th	eir small	accoun	t		
CO4	Knov	v to the	makin	ıg sma	ll prese	ntations	S						
CO5	Intro	duction	to orig	gin sof	tware &	k adobe	photosh	op					
	I	Mappi	ng of c	of course outcomes with the program specific outcomes									
Course	Prog	gramm	ne Out	comes POs Programme Specific Outcomes PSOs Mean									
Outcomes													
COs												CO's	
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6		
CO1	3	2.5	4.1	3.5	3	2.5	3	3.1	4	3.2	3.2	3.19	
CO2	3.3	3.2	3	3	3.5	2.8	4	3.6	3	2.3	3.5	3.2	
CO3	3.5	4.2	3.5	2.8	3	3.2	3.5	3.5	3.7	4	3.2	3.46	
CO4	3.2	3.8	3	4.2	3	3.5	3.5	2.8	3.6	3.5	3.6	3.42	
CO5	4.3	3.5	3.7	3.2	3.8	2.5	3.5	3.2	4.3	3.2	3.5	3.51	
				N	Iean Ov	erall Sc	core					3.36	
			F	Result	: The S	core fo	r this co	urse is l	High				
Mapping	g 1-20% 21-40% 41-60% 61-80% 8										81	-100%	
Scale		1	1		2		3		4			5	
Relation		0.0	-1.0		1.1-2.0)	2.1-3.0		3.1-4	.0	4	.1-5.0	
Quality		Very	Poor		Poor		Moderat	e	Higl	n	Vei	ry High	
	,			ı		Value S	Scaling	1					
Mean Score of $COs = \frac{Total Values}{Total No. of POs \& PSOs}$ Mean Overall Score of $COs = \frac{Total Mean}{Total No. o}$													

UNIT-I: COMPUTER, COMMUNICATIONS AND COLLABORATION (12 Hours)

Introduction - Components of Computer System -Concept of Hardware and Software -Application Software-Systems software-Concept of computing, data and information- Applications of IECT - e-governance - Connecting keyboard, mouse, monitor and printer to CPU - Checking power supply-Operating system -The User Interface -Task Bar-Icons-Menu-Running an Application. Introduction- Basics of E-mail- Using E-mails -Opening Email account-Mailbox: Inbox and Outbox -Creating and sending a new E-mail - Replying to an E-mail message -Forwarding an E-mail message -Sorting and Searching emails-document collaboration -Netiquettes

UNIT-II: UNDERSTANDING WORD PROCESSING (12 Hours)

Introduction-Opening Word Processing Package -Menu Bar-Using The Help - Using The Icons Below Menu Bar-Opening and closing Documents - Opening Documents- Save and Save as -Page Setup -Print Preview -Printing of documents -Text Creation and manipulation -Document Creation -Editing Text - Text Selection -Cut, Copy and Paste -Spell check-Thesaurus -Formatting the Text- Font and Size selection -Alignment of Text - Paragraph Indenting -Bullets and Numbering -Changing case -Table Manipulation -Draw Table -Changing cell width and height -Alignment of Text in cell -Delete / Insertion of row and column -Border and shading

UNIT-III: USING SPREAD SHEET (12 Hours)

Introduction -Elements of Electronic Spread Sheet-Opening of Spread Sheet-Addressing of Cells-Printing of Spread Sheet-Saving Workbooks-Manipulation of Cells -Entering Text, Numbers and Dates -Creating Text, Number and Date Series- Editing Worksheet Data-Inserting and Deleting Rows, Column -Changing Cell Height and Width-Formulas and Function-Using Formulas-Function

UNIT-IV: MAKING SMALL PRESENTATIONS (12 Hours)

Introduction - Using PowerPoint -Opening A PowerPoint Presentation - Saving A Presentation - Creation of Presentation-Creating a Presentation Using a Template-Creating a Blank Presentation-Entering and Editing Text-Inserting And Deleting Slides in a Presentation-Preparation of Slides-Inserting Word Table or An Excel Worksheet-Adding Clip Art Pictures-Inserting Other Objects-Resizing and Scaling an Object -Presentation of Slides-Viewing A Presentation-

Choosing a Set Up for Presentation-Printing Slides And Handouts-Slide Show - Running a Slide Show-Transition and Slide Timings - Automating a Slide Show

UNIT-V: ORIGIN SOFTWARE & ADOBE PHOTOSHOP (12 Hours)

Origin 8-Data analysis and Graphing workspace-Workbook-Worksheet& Worksheets column-Importing and Exporting data-Graphing: Customizing and Formatting the graph-Fitting analysis

Introduction to Adobe photoshop, creating and saving a document in photoshop, page layout and back ground ,ruler, paletts, tool box, ,saving files, reverting files, closing files. image size and resolution ,image editing, colour modes and adjustments , Zooming & Panning an Image,, , Rulers, Guides & Grids- Cropping & Straightening an Image,image backgrounds , working with pen tool, save and load selection-working with erasers-working with text and brushes-Colour manipulations: colour modes- Levels — Curves- Seeing Colour accurately - Patch tool — Cropping-Reading your palettes - Dust and scratches-Advanced Retouching- smoothing skin Layers: Working with layers- layer styles- opacity-adjustment layers

- Fundamentals of Computers by Reema Thareja from Oxford University Press
- 2. Photoshop: Beginner's Guide for Photoshop Digital Photography, Photo Editing, Color Grading & Graphic...19 February 2016 by David Maxwell

YEAR- III		19SSPH52
SEMESTER - V	EVERYDAY PHYSICS	HRS/WK-0
SSC##		CREDIT-2

OBJECTIVES:

- To acquire the knowledge about the fundamental parameters in physics and to understand their applications in daily life.
- To understand the flow of heat and its transmission in different forms and to develops a scientific quest among students.
- > Transmission of sound waves, characteristics and their applications in human system.
- To discern the basic application of geographical physics, and their utilization in the field of Medication.
- > To comprehend the basic ideas of physics in space science and communication networking.

UNIT-I

Mechanics: Weight – Mass - Force – Laws of Motion-– Work - Energy – Power- Friction – Centre of Gravity – Torque – Momentum – Angular Momentum.

UNIT - II

Heat: Flow of Heat & Thermal Equilibrium(Applications – Riveting- bimetallic strip – Units of Heat energy – Transmission of heat – Conduction –Convection – Radiation –(Applications – Ocean Currents –Car Radiators – Ventilation – Wind system in atmosphere – Thermos flask).

UNIT-III

Sound & Optics: Sound waves – Doppler Effect –Power of Lens - Physics in the human body: The eyes as an optical instrument; vision defects; Rayleigh criterion and resolving power; sound waves and hearing; sound intensity; the decibel scale.

UNIT - IV

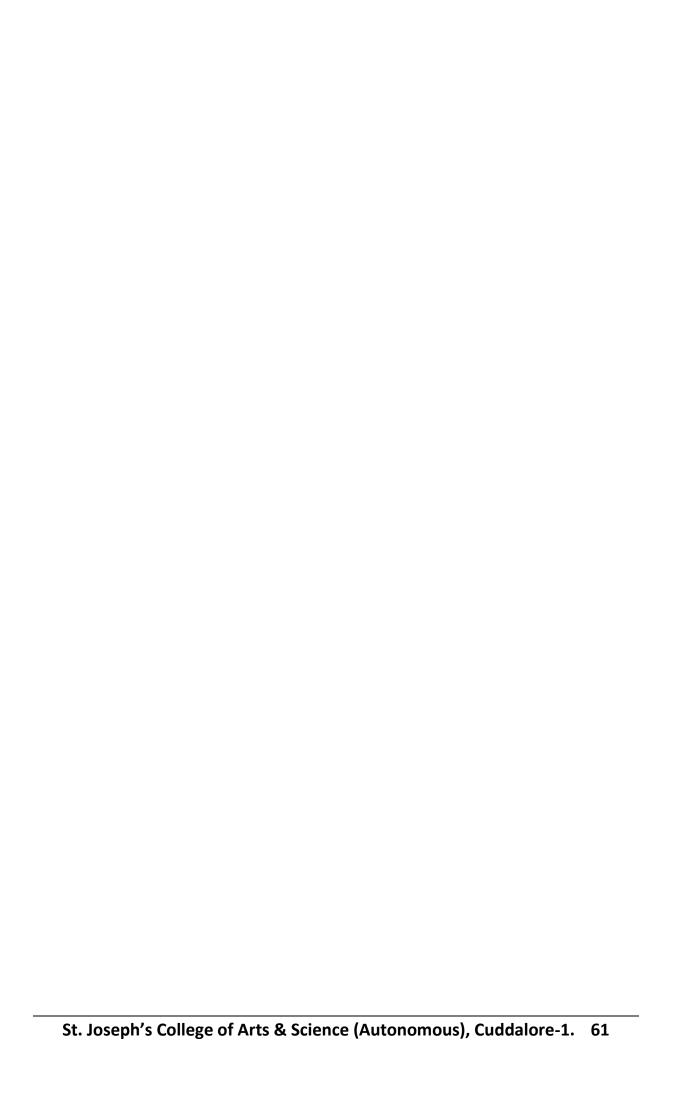
Geo & Medical Physics: Earthquake Richter scale - thunder and lightning - Lightning arrestors Cosmic showers - X-rays Ultrasound scan CT scan — MRI scan.

UNIT - V

Space science & Communication: Newton's law of gravitation - Weather forecasting and communication satellites - Indian Satellites- Electromagnetic spectrum- Radio Waves AM & FM transmission and reception.

Text Books:

- 1. University Physics by F. W. Sears, M. Zemansky, R. A. Freedman, and H. D. Young, Pearson Education
- 2. Fundamentals of Physics by D. Halliday, R. Resnick, J. Walker, John Wiley & Sons
- For Question paper pattern refer pg. no. 62



I-B.Sc. (Zoology)	ALLIED CHEMISTRY FOR ZOOLOGY For the students admitted in the year 2019	19ACH202
SEMESTER-II		HRS/WK-5
ALLIED CHEMISTRY		CREDIT-4

Course outcome:

- i. To impart the knowledge of purification techniques.
- ii. To impart the knowledge of separation techniques, instrumental analysis, water treatment and spectroscopy.

UNIT-I: BASIC CHEMISTRY

Chemical bonding –Types of Bonding - Structure of Amino acids - Zwitterion - Isoelectric Point - Structure of Proteins.Co-Ordination Chemistry: Definition of terms used - classification of ligands-Werner's theory - Biochemistryof Iron-Heme proteins - Structure and function of hemoglobin, myoglobin. Ionic Equilibria - pH scale - Buffer solution - Types of Buffer Solution-Calculation of pH values of Buffer mixtures - Henderson equation.

UNIT-II: PURIFICATION TECHNIQUES

Purification of solid compounds – Crystallisation - Fractional crystallization-Sublimation- Purification of liquids- Experimental techniques of distillation-Fractional distillation- Vacuum distillation- Steam distillation.

UNIT-III: SEPARATION AND EXTRACTION TECHNIQUES

Chromatography - Principles- Types - Principle and applications of Thin Layer Chromatography - Rf Value - Column chromatography - Ion Exchange Chromatography. Soxhlet Extraction - Principle and applications.

UNIT-IV: SPECTROSCOPY

General features of spectroscopy-units - Rotational spectroscopy-the rotational energy levels of molecules-rotational transitions - Vibrational spectroscopy — the vibrations of molecules —transitions - UV-Visible Spectroscopy - Absorption Laws - Selection Rules - Types of Electronic transitions — chromophore-Auxochrome-Absorption bands and Intensity. Woodward-fiesher rules for calculating λ_{max} in Dienes and α,β -unsaturated carbonyl compounds.

UNIT-V: TECHNOLOGY OF WATER

Water quality parameters – COD, BOD, TDS – Hardness of water - Temporary and Permanent hardness - Estimation of hardness (EDTA method) - Water softening (Zeolite Method) - Demineralization of water (Ion Exchange Method) and Desalination (Reverse Osmosis Method).

Text Books:

- 1. P. S. Kalsi. Organic Reaction stereochemistry & Mechanism. 4thedition.New Age International publishers. 2006.
- 2. J. D. Lee, Concise Inorganic Chemistry, 5th edition, Blackwell Science, London 1996.
- 3. Puri and Sharma. Principles of physical chemistry. 40th edition.2003
- 4. R. Gopalan, P.S. Subramanian & K. Rangarajan, Elements of analytical chemistry, Sultan Chand & Sons, 2003.
- 5. G.R. Chatwal & S.K. Anand, Instrumental Methods of Chemical Analysis, Sultan Chand & Sons, 1998
- 6. C. N. Banwell. 1966, Fundamentals of Molecular Spectroscopy, McGraw Hill.
- 7. S. S. Dara, "A Text Book of Engineering Chemistry" fifth revised edition (1996) S Chand company limited New Delhi.

Reference Books:

- 1. F. A. Cotton, G. Wilkinson, C. Murillo and M. Bochman, Advanced Inorganic Chemistry, 6thedition. John Wiley, New York 1999.
- 2. Raj.K. Bansal, Organic Reaction Mechanism, 3rd edition, Tata McGraw Hill, 1998
- 3. A. Skoog and D. M. West, "Fundamentals of Analytical Chemistry", International edition, seventh edition (1996), Saunders college publishing Philadelphia, Halt, London.
- 4. Y.R. Sharma Elementary Organic Spectroscopy Principles and Chemical Applications S. Chand & Company Ltd; New Delhi 4th Revised Edition (2007)

I B.Sc. (Zoology)	ALLIED CHEMISTRY PRACTICAL - I	19ACP202
SEMESTER – II	For the students admitted in the	HRS/WK – 3
ALLIED PRACTICAL-I	year 2019	CREDIT – 2

QUALITATIVE ANALYSIS OF AN ORGANIC COMPOUND

- 1. Systematic Analysis of an Organic Compound Containing one functional Group and Characterisation by Confirmatory Tests
- 2. Reactions of Aldehyde (Aliphatic & Aromatic), Carbohydrate, (Reducing & Non-Reducing sugar), Carboxylic Acid (Mono & Di), Phenol (Mono & Dihydric), Primary amine, Amide (Mono & Di).

Reference Books:

- 1. A.O. Thomas, Practical chemistry- Scientific Book Center.
- 2. Vogel, Textbook of chemical analysis, Longman.
- 3. S. Sundaram, & S. Viswanathan, Practical chemistry, 3 Volumes.

Scheme of evaluation

Analysis	:	35 marks
Saturated/ unsaturated	:	5 marks
Special elements	:	8 marks
Aromatic / aliphatic	:	5 marks
Identification of functional group	:	8 marks
Confirmatory tests	:	7 marks
Preparation of derivative	:	6 marks
Systematic procedure	:	6 marks
Record	:	10 marks
Viva	:	5 marks
Total	:	60 marks

I M.Sc (BC)		Course Code 19PBC11
SEMESTER-I	BIO-ORGANIC CHEMISTRY	HRS/WK-5
CORE-1		CREDIT-4

- To provide information about biochemically important aspects of the biomolecules.
- To understand the structure of biomolecules and its properties
- To know the DNA-protein interactions and the techniques used to characterize it.

Course Outcomes:

CO1- To understand and acquire knowledge about the classification, structure, properties and biological importance of carbohydrates.

CO2-To gain knowledge about the different structural aspects of proteins and the allosteric nature of hemoglobin.

CO3-To acquire knowledge about the classification, structure and properties of lipids and its importance in physiological process.

CO4- To acquire the knowledge about the structure, types, properties and functions of DNA and RNA

CO5- Be familiar with important motifs involved in DNA-protein interaction and also gain technical skills in predicting the interactions.

SEMESTER I	Cou	rse C	ode: 1	19PB(C11	COURSE TITLE: BIO-ORGANIC CHEMISTRY								HOURS:5 CREDITS :4
COURSE OUTCOMES			OGRAN COME	MME S(POS)			PROGRAMME SPECIFIC OUTCOMES(PSOS)							MEAN SCORE OF
OCICONES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO1 PSO2 PSO3 PSO4 PSO5 PSO6 PSO7 PSO8						PSO8	co's
CO1	5	4	4	3	4	3	4	4	3	4	3	5	4	3.8
CO2	4	4	3	4	3	3	4	4	4	5	5	4	4	3.9
CO3	4	3	4	3	4	3	4	5	4	3	3	3	4	3.6
CO4	3	4	4	3	3	4	4 3 4 4 4 3 4 3						3.5	
CO5	CO5 4 3 3 4 3 4 3 4 3 4 3 4 3 3 4 3 3 4 4 4 3 3 4 4 4 3 3 4 4 4 3 3 4 4 4 3 3 4 4 4 3 3 4 4 4 3 4 4 3 4 4 4 3 4 4 4 3 4 4 4 3 4 4 4 3 4 4 4 4 3 4 4 4 4 3 4									3.6				
	Mean overall score											3.7		

Result: The Score of this Course is 3.7 (High)

Associat ion	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **High** association with Programme Outcome and Programme Specific Outcome

UNIT I - CARBOHYDRATES

[20 hrs]

Carbohydrates: classification-properties of monosaccharides and disaccharides. Polysaccharides—occurrence, structure and biological functions of cellulose, chitin, starch and glycogen. A brief account on fructans, arabinans and galactans.Bacterial cell wall polysaccharides and blood group antigens.Glycosaminoglycans — structure and biological role of hyaluronic acid, chondroitinsulfate and heparin. Sialic acid — structure and significance, Proteoglycans and their biological importance.Receptor proteins.

UNIT II - PROTEINS [15 hrs]

Amino acids: classification and properties. Classification of protein. Orders of protein structure: Primary structure – determination of amino acid sequence of proteins. The peptide bond, Secondary structures – α -helix, β -sheet and β -turns. Pauling and Corey model for fibrous proteins, Reverse turns and super secondary structures and Tertiary structure. Ramachandran plot, Collagen triple helix, Conformational properties of silk fibroin, Quaternary structure of proteins, The structure of hemoglobin. Models for hemoglobin allostery. Prions.

UNIT III - LIPIDS [10 hrs]

Lipids – Introduction, classification: structure and functions. Fatty acids: saturated, unsaturated and hydroxy fatty acids. PUFA, significance of omega 3and 6 fatty acids. Phospholipids and glycolipids – structure and functions. Structure and functions of cholesterol. DHA in memory function. lipids as signal, cofactor and pigments. Lipoproteins – classification and composition.

UNIT IV - NUCLEIC ACIDS

[15 hrs]

DNA double helical structure – Watson and Crick model. A, B and Z forms of DNA.DNA supercoiling and linking number. Properties of DNA – buoyant density, viscosity, denaturation and renaturation – The cot curve. Major classes of RNA – mRNA, rRNA, tRNA, snRNA,micro RNA, Sno RNA – structure and biological functions.

UNIT V - DNA - PROTEIN INTERACTIONS

[15 hrs]

Salient features of nucleic acid recognition by proteins. DNA binding motifs in proteins – the basic helix loop helix (bHLH) motif, zinc finger, the leucine zipper and helix-loop helix. RNA binding motifs in proteins. Techniques characterizing nucleic acid-protein complex – gel retardation assay, DNase I foot printing, CHIP.

TEXT BOOKS:

- 1. Jain, J.L& Jain, (2005) Fundamentals of Biochemistry. Sixth Edition, S.Chand& Company, New Delhi.
- 2. Nelson, D.L. and Cox, M.M (2008). Lehninger Principles of Biochemistry. 5thEdition, W.H.Freeman and Company, New York.
- 3. Zubay, G. (1999). Biochemistry, 4th Edition, WCB. Mcgraw-Hill, New York.

- 1. Victor W. Rodwell, Harpers Illustrated Biochemistry 30th Edition Paper back– Import, 1 Jan 2015.
- 2. Donald Voet, Judith, G. Voet, and Charlotte, W Pratt, (2008). Fundamentals of Biochemistry, 3rd Edition. John Wiley & Sons, New Jersey.
- 3. Berg, J. M., Tymoczko, J. L. and Stryer, L. Biochemistry. Freeman, 7th edn, 2011.
- 4. Text book of biochemistry (1997) 4th edition Thomas M devlin, A John Wiley, Inc publication, New York.
- 5. Bery J.M., Tymoezko J.L. and Stryer L. (2008) Biochemistry, 5th Edition, W.H. Freeman and Company, New York
- 6. Murray, K.R. Granner, K.D.Mayes, P.A. and Rodwell W.V. (2009). Harper's Biochemistry. 23rd Edition, Prentice Hall International Inc., New Jersey.

I M.Sc (BC)		Course Code 19PBC12
SEMESTER-I	CELL BIOLOGY	HRS/WK-5
CORE-2		CREDIT-4

- To understand the structure and purpose of the basic components of the Cell and its organelles
- To understand the vast networks of communication that occurs between and within each cell in our body.
- To acquire knowledge about microfilaments and microtubules and the components involved in cellcell interaction
- To know the mechanism of cell cycle, cell death and genes to inhibit cancer.

Course Outcomes:

CO1: To gain in-depth knowledge about the structure and functions of various cell organelles, membrane and the techniques involved in visualization.

CO2: Able to understand the cell - cell interactions and the functional aspects of their components.

CO3: Able to understand the structure, functions and organization of microfilaments and microtubules.

CO4: To gain in-depth knowledge about the various mechanisms involved in cell signaling process.

CO5: To acquire knowledge and understand the different phases of cell cycle apart from types and tumorogenic properties of cancer.

SEMESTER I	Cou	rseCo	de:19	PBC	12		COURSE TITLE: CELL BIOLOGY							
COURSE OUTCOMES			OGRAN COME	MME S(POS)			PROGRAMME SPECIFIC OUTCOMES(PSOS)							
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO1 PSO2 PSO3 PSO4 PSO5 PSO6 PSO7 PSO8					PSO8	SCORE OF CO'S	
CO1	5	3	3	4	4	4	4	5	4	4	3	4	4	3.9
CO2	5	4	3	4	4	3	3	4	4	4	3	4	4	3.8
CO3	4	4	3	4	4	4	4	4	4	5	4	3	4	3.9
CO4	3	4	4	3	4	3	3 4 3 3 4 3 4 3							3.5
CO5	CO5										3.6			
	Mean overall score											3.7		

Result: The Score of this Course is 3.7 (High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **High** association with Programme Outcome and Programme Specific Outcome

UNIT I - BIOMEMBRANE AND ORGANELLES

[25 hrs]

Structure and functions of organelles: nucleus, mitochondria, endoplasmic reticulum, golgi apparatus, lysosomes, ribosomes& peroxisomes. Membrane Models, Membrane lipids: fluidity, asymmetry and phase transition.Membrane proteins - Types, proteins on RBC membrane, Purification of subcellular organelles, Bright field microscopy, phase contrast microscopy, SEM, TEM, AFM, FACS-Principle and applications. Markerenzymes for different organelles.

UNIT II - CELL - ADHESION AND CELL CELL INTERACTION [15 hrs]

Cell-Cell interaction: ECM, Collagen, hyaluronan& proteoglycans, laminin, integrins and fibronectins.Cell-Cell adhesion: Specialised junctions - Desmosomes, Gap junctions, tight junctions. Adhesion molecules: Cadherins and Connexins.

UNIT III - CELL ORGANIZATION AND MOVEMENT [10hrs]

Microfilaments: Actin – Structures, Assembly and disassembly. Microtubules – structure and composition. Microtubular associated proteins, MTOCs, Cilia and Flagella - Structure and functions, Intermediary filaments.

UNIT IV - CELL SIGNALLING

[15hrs]

Cell surface receptor and signalling pathways – cell surface receptors, signal transduction and second messengers –adenylatecyclase system, cAMP, G-protein coupled receptors. G-protein as cellular transducer, inositol triphosphate and calcium, DAG and NO, ion channels, Signal transmission via Ras proteins and MAP kinase pathways. Crosstalk in signaling pathways. mTOR pathway.

UNIT V - CELL CYCLE &CELL DEATH

10hrs]

Overview of cell cycle and its control. Checkpoints in cell cycle regulation. Apoptosis (Programmed cell death) - Pathways, regulators & effectors in apoptosis and necrosis. Cancer: types & properties of cancer cells. Tumor suppressor genes- functions.

TEXT BOOKS:

- 1. Harvey Lodish. W. H. Freeman; Sol edition (2007), Molecular cell Biology
- 2. Alberts2002. Molecular Biology of the Cell 4th ed. Garland Sci.
- 3. Karp, G. Cell 2010, Molecular Biology: Concepts and Experiments, 6th edn, Wiley.

- 1. Robert Murray, Bender, (2012) Harper's Illustrated Biochemistry. McGraw Hill
- 2. De Robertis and De Robertis. Cell and Molecular Biology. Lea and Febiger 8th ed.
- 3. Nelson, D.L. and Cox, M.M (2008). Lehninger Principles of Biochemistry. 5th Edition, W.H.Freeman and Company, New York
- 4. Kelein Smith, and M Kish, (1995). Principles of cell biology, 2nd Edition, Harper and Row Publisher.

I M.Sc (BC)	INTERMEDIARY METABOLISM	Course Code 19PBC13
SEMESTER-I		HRS/WK-5
CORE-3		CREDIT-4

- ❖ To provide students with an understanding of key metabolic pathways of various biomolecules.
- To give insights to various pathways -how it generates energy and performs cellular work.
- ❖ To gain skills to interpret how the pathways are regulated by various metabolic and hormonal changes.

Course Outcomes:

CO1: To gain insights about the biological oxidation process, high energy compounds and key carbohydrate metabolic pathways such as glycolysis, TCA and ETC.

CO2: To understand the key metabolic steps involved in various pathways of carbohydrate metabolism.

CO3: To gain knowledge about the metabolic pathways of amino acid metabolism and its related inborn errors.

CO4: To gain knowledge about the metabolic pathways of lipid metabolism and its storage diseases.

CO5: Able to understand and interpret the metabolic pathways of nucleic acid metabolism and nucleotide coenzymes.

SEMESTER I	COU 19PB	RSE (C13	CODE:			COU	COURSE TITLE: INTERMEDIARY METABOLISM							
COURSE OUTCOMES			OGRAN COME	MME S(POS)		PROGRAMME SPECIFIC OUTCOMES(PSOS))	MEAN SCORE OF	
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO1 PSO2 PSO3 PSO4 PSO5 PSO6 PSO7 PSO8					PSO8	CO'S	
CO1	4	3	4	3	4	5	4	4	3	4	4	3	4	3.8
CO2	3	3	3	4	4	4	4	4	3	4	3	4	3	3.5
CO3	4	4	4	5	3	4	4	3	3	4	4	4	3	3.8
CO4	3	4	5	4	4	3	3 3 4 4 3 3 4 4						3.7	
CO5	3	4	3	4	3	3	3 4 5 4 3 4 4 4							3.7
	Mean overall score										3.7			

Result: The Score of this Course is 3.7 (High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **High** association with Programme Outcome and Programme Specific Outcome **UNIT I BIOENERGETICS** [15 hrs]

Biological oxidation-reduction reactions, redox potentials, High energy phosphate compounds – phosphate group transfer, Glycolysis - regulation and energetic, PDH complex, citric acid cycle - regulation and energetices. ETC, oxidative phosphorylation - regulation and inhibition, uncouplers.

UNIT II CARBOHYDRATE METABOLISM [15 hrs]

Pentose phosphate pathway. Gluconeogenesis, glycogenesis &glycogenolysis metabolism - regulation,

glyoxylate cycle and Gamma aminobutyrate shunt pathways, Cori cycle, anapleurotic reactions, glucuronate pathway. Hormonal regulation of carbohydrate metabolism. Glycogen storage diseases

UNIT III AMINO ACID METABOLISM

Amino Acids – General reactions of amino acid metabolism - Transamination, decarboxylation, oxidative & non-oxidative deamination of amino acids. Catabolism of carbon skeletons of amino acids tyrosine and aliphatic amino acids. Urea cycle and its regulation. In born errors of metabolism-PKU, Alkaptonuria, Tyrosinosis.

UNIT IV LIPID METABOLISM

[15 hrs]

[15 hrs]

Introduction, hydrolysis of tri-acylglycerols, α -, β -, ω - oxidation of fatty acids. Oxidation of odd numbered fatty acids, PUFA, fate of propionate, role of carnitine, degradation of complex lipids. Fatty acid biosynthesis, Energetics of fatty acid cycle. Acetyl CoA carboxylase, fatty acid synthase, biosynthetic pathway for tri-acylglycerols, phosphoglycerides and sphingomyelin. Metabolism of cholesterol and its regulation. Lipid storage diseases.

UNIT V NUCLEIC ACID METABOLISM [15 hrs]

Nucleotides – Biosynthesis of Purines (de nova and salvage) and biosynthesis of Pyrimidines - catabolism and regulation of purine and pyrimidine biosynthesis. Biosynthesis of NAD + NADP and FAD+.

TEXT BOOKS:

- 1. Nelson, D. L. & Cox, M. M. Lehninger Principles of Biochemistry. Freeman, 5th edn, 2008
- 2. U.Sathayanarayana,(2006). Biochemistry. 3rd Edition by Books and Allied (P) Ltd., India.
- 3. Jain, J.L & Jain, (2005) Fundamentals of Biochemistry. Sixth Edition, S. Chand & Company, New Delhi.

- 1. Berg, J. M., Tymoczko, J. L. and Stryer, L, 2011. Biochemistry. Freeman, 7th edn,
- 2. Zubay, Biochemsitry" 1998, 4th ed. William C. Brown Publication,
- 3. Voet, D. &Voet, 2010. J. G. Biochemistry. 4th edn,
- 4. Victor W. Rodwell, 2015. Harpers Illustrated Biochemistry 30th Edition Paper back- Import, 1 Jan
- 5. West, E.S. and Todd, W.R., 1985, Textbook of Biochemistry, MacMillan, Germany.

I M.Sc (BC)		Course Code
TWI.SC (BC)	MEDICAL LAB TECHNOLOGY	19EPB14A
SEMESTER-I		HRS/WK-5
ELECTIVE-I		CREDIT-4

- To impart basic knowledge of apparatus, units, equipment, and analysis in the Clinical Biochemistry.
- * To discuss the laboratory test and diagnosis of various blood components.
- ❖ To learn about various histotechniques, handling and processing of tissue specimens as well as staining procedures.
- ❖ To learn the different culturing techniques and its identification methods.

COURSE OUTCOMES:

CO1: To learn about the handling of the laboratory equipments and also know about how to collect and preserve the biological samples.

CO2: To gain the knowledge about to accessing various blood components and predict its clinical significance.

CO3: To acquire the knowledge and skill about various steps involved in the histopathological techniques.

CO4: To understand the importance of various biochemical parameters and its clinical significance.

CO5: To learn the basic skills of microbial culture and its safety measures.

SEMESTER I	Cou	rse C	ode:1	9EPB	314A	CO	URSE T	OGY	HOURS:5 CREDITS:4					
COURSE OUTCOMES	PRO	OGRAN	MME (POS)	OUTCO	MES	PR	PROGRAMME SPECIFIC OUTCOMES (PSOS)							MEAN SCORE OF
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO1 PSO2 PSO3 PSO4 PSO5 PSO6 PSO7 PSO8					PSO8	co's	
CO1	5	4	3	5	4	3	5	4	4	5	5	4	3	4.2
CO2	4	4	5	4	3	5	3	5	4	3	4	3	4	3.9
CO3	4	3	4	3	4	4	5	4	3	5	3	4	3	3.8
CO4	4	5	3	4	3	4	4 4 3 3 5 4 5 4							3.9
CO5	CO5 3 5 4 4 3 4 4 5 4 5 4 3 5									4.2				
		•			Mear	1 overa	all sco	re	•	•	•	•	•	4.0

Result: The Score of this Course is 4.0 (High)

					, 0 /
Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **High** association with Programme Outcome and Programme Specific Outcome

UNIT I - LABORATORY CARE AND INSTRUMENTATION [15 hrs]

Automation in clinical lab – Instrumental concept, selection of instrument, quality assurance, control of pre analytical and analytical variables. Internal and external quality control measurements. Collection and preservation of samples.

UNIT II - HEMATOLOGY

[15 hrs]

Blood grouping and Rh factor, cross matching, clotting time, bleeding time, hemoglobin estimation, total count-RBC count and WBC count, Differential WBC count, MCHC, MCH, MCV. Erythrocyte Sedimentation Rate (ESR), Hematocrit value (Packed Cell Volume). Screening test-HIV, HbsAg and TPHA. Platelet and its significance, Coombs test.

UNIT III - CLINICAL PATHOLOGY

[15 hrs]

Brief outline of histopathology: Tissue cutting, fixation, embedding, tissue slicing by microtome, slide mounting and staining techniques.

UNIT IV - CLINICAL BIOCHEMISTRY

[15 hrs]

Biochemical parameters: Blood glucose, HbA1c, urea, uric acid, lipid profile, total protein, albumin test, A/G ratio- normal values and their significance. Enzymes: SGOT, SGPT, serum alkaline and acidic phosphates, amylase, lactic dehydrogenase test- normal values and their significance. Electrolytes: sodium, potassium, calcium, phosphorous - its role and abnormalities.

UNIT V - MICROBIOLOGY

[15 hrs]

Culturing of organisms from various specimens, culture media and antibiotic sensitivity test (pus, urine, blood, sputum, throat swab). Gram stain, Ziehl-Neilson staining (TB,Lepra bacilli). Safety procedure in microbiological techniques.

TEXT BOOKS:

- 1. Kanai L. Mukherjee, Medical Laboratory Technology Vol. I.Tata McGraw Hill 1996, New Delhi.
- 2. Gradwohls, 2000. Clinical laboratory methods and diagnosis .Alex.C. Sonnenwirth& Leonard Jarret.M.D.B.I.Publications, New Delhi,

- 1. Henry, John Bernard, Todd Sanford and Davidson, 2002. Clinical diagnosis andmanagement by laboratory methods. W.B. Saunders & Co.
- 2. Fischbach Francis A, 2003. Manual of laboratory and diagnostic tests. Philadelphia, J.B. Lippancott & Co, N.Y.
- 3. Sood, R, 2005, Medical Laboratory methods and interpretation, Jaypeebrothers medical publications, New Delhi.

IMCa (DC)		Course Code
I M.Sc (BC)	CLINICAL NUTRITION	19EPB14B
SEMESTER-I		HRS/WK-5
ELECTIVE-I		CREDIT-4

- ❖ To study the nutritional aspects of various foodstuffs and its measurement.
- ❖ To study the functional aspects of vitamins and minerals.
- ❖ To understand the nutritional management of diet in different age groups and diseases.
- ❖ To learn and gain knowledge about the functional foods.

Course Outcomes:

CO1: Students gain knowledge about diet and different nutritional disorders.

CO2: To understand and gain knowledge about different types of nutritional measurements.

CO3: Students are able to comprehend the daily requirements and functions of vitamins & minerals.

CO4: Students are able to demonstrate and exhibit different dietary plan for different age groups & disease condition.

CO5: Students are able to gain knowledge about importance of neutraceuticals and antioxidants in human health.

SEMESTER I	Cou	ırse C	Code:1	19EPI	B14B		COURSE TITLE: CLINICAL NUTRITION							HOURS:5 CREDITS:4
COURSE	PROGRAMME OUTCOMES (POS)						PROGRAMME SPECIFIC OUTCOMES (PSOS)							
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO 1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	SCORE OF CO'S
CO1	4	4	3	5	2	2	3	3	5	5	3	5	4	3.7
CO2	5	4	4	3	2	2	3	4	5	3	4	3	3	3.5
CO3	4	3	3	2	2	5	3	3	3	3	5	5	3	3.4
CO4	3	3	4	5	2	2	5	4	4	2	5	5	4	3.7
CO5	4	3	4	5	2	5 3 4 3 5 5 3 3					3	3.8		
	Mean overall score 3											3.6		

Result: The Score of this Course is 3.6 (High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **High** association with Programme Outcome and Programme Specific Outcome

UNIT 1 - NUTRITIONAL DISORDER

[15 hrs]

Introduction: Diet-composition, fibre in diet. Disorders associated with protein metabolism-marasmus and kwashiorkor, Biological value of proteins, Chemical score.Fats: sources, essential and non-essential fatty acids-disorders concerned with fatty acid metabolism. Refsum's disease, atherosclerosis and fatty liver. Disorders of protein malnutrition.

UNIT II - BASAL METABOLIC RATE

[15 hrs]

Basal metabolic rate-factors affecting BMR-determination of BMR, direct and indirect methods-Benedict's Roth apparatus-respiratory quotient, BOD. SDA, Anthropometry: height, weight, skin fold thickness and arm circumference and their importance in nutrition. BOD & POD. Nutritional dietary management of diabetes & renal disorders.

UNIT III - VITAMINS & MINERALS

[15hrs]

Vitamins-Classification, fat soluble and water soluble vitamins-source, daily requirements, functions and deficiency manifestations. Micro, Macro and trace elements-daily requirements, functions and deficiency manifestations.

UNIT IV - NUTRITIONAL MANAGEMENT

[15 hrs]

Objectives of diet therapy-regular diet and rationale for modifications in energy and other nutrients, texture-fluid,soft diets etc. Glycemic index. Nutritional management of:obesity,cardiovasculardiseases,Diabetes mellitus, Renal disorders and neurological disorders (Parkinson's disease, Alzheimer's disease). Nutrition requirements at different stages of life -during infancy, adolescence, pregnancy, lactation and old age.

UNIT V - RECENT ADVANCES IN CLINICAL NUTRITION [15 hrs]

Neutraceuticals: Adverse effects of neutraceuticals. Functional foods-Health benefits of functional foods in Immune function & mental health. Probiotics and prebiotics: Types & Health benefits. Antioxidants-Role of antioxidants in human health, Phytoceuticals (polyphenols, flavonoids&terpenes).

TEXT BOOKS:

- 1. M. Swaminathan,1987, "Food and Nutrition Vol I&II", Second edition, Bangalore, Publishers.
- 2. Mahan ,L. KandEscott-Stump,S (2000):Krause's Food Nutrition and Diet therapy,10thed, W-13 Saunders Ltd
- 3. U.Sathayanarayana, (2006). Biochemistry. 3rd Edition by Books and Allied (P) Ltd., India.

- 1. Williams, SR(1993): Nutrition and Diet Therapy, 7thed, Times Mirror/Mosby College Publishing
- 2. Shills,ME,Olson,JA,Shike,M and Ross,A.C(1999):Modern Nutrition in Health and Disease,9thed,A.Vaiiams and willons
- 3. Davidson and Passmore(2000):Human Nutrition and Dietetics
- 4. Patricia Trueman, 2007, "Nutritional Biochemistry" (I edition), Chennai, MJ publishers
- 5. M.N Chatterjea and RanaShinde," Text book of Medical biochemistry",4th edition, Jaypee Publishers, New Delhi

I M.Sc (BC)	MOLECULAR BIOLOGY	Course Code 19PBC21
SEMESTER-II		HRS/WK-5
CORE-4		CREDIT-4

- ❖ To teach the life processes at the sub cellular and molecular level.
- ❖ To discuss central dogma of molecular biology in depth.
- ❖ To make them learn various repair processes involved in DNA damage.
- ❖ To explain various transposable elements, stress proteins and membrane fusion proteins and their function.

Course Outcomes:

CO1: To understand the basic concepts of molecular biology and its central dogma apart from gene transfer mechanism in microorganism

CO2: To acquire in-depth knowledge of the factors involved in prokaryotic and eukaryotic replication process.

CO3: To gain appropriate knowledge about transcription process and its modifications and also get clear insight of operation/regulation of different operons.

CO4: To acquire sufficient knowledge and skill about the features and decoding of genetic code and also understand the translation process in prokaryotes and eukaryotes.

CO5: To understand the mechanism of DNA repair and its types and gain significant knowledge about protein targeting, HSPs and transposons.

SEMESTER II	Cou	CourseCode:19PBC21					COURSE TITLE: MOLECULAR BIOLOGY							HOURS:5 CREDITS:4
COURSE OUTCOMES	PRO	OGRAN	MME (POS)	OUTCO	MES	PROGRAMME SPECIFIC OUTCOMES (PSOS)								MEAN SCORE OF
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO1 PSO2 PSO3 PSO4 PSO5 PSO6 PSO7 PSO8					CO'S		
CO1	3	4	3	5	4	3	5	4	4	3	3	4	3	3.7
CO2	3	4	3	4	3	5	3	4	4	3	4	3	4	3.6
CO3	4	3	4	3	4	4	5	4	3	5	3	4	3	3.8
CO4	4 5 3 3 3 4 4 3 3						4	2	5	4	3.6			
CO5	3	3	2	4	3	4 4 3 3 3 4 3 3						3	3.2	
	Mean overall score											3.6		

Result: The Score of this Course is 3.6 (High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **High** association with Programme Outcome and Programme Specific Outcome

UNIT I - CHROMOSOME

[20 hrs]

DNA-genetic material-Griffith, Avery *et al* and Hershey and Chase experiment value ,C value paradox, Cot value, organization of chromosomes and nucleosomes, Euchromatin, heterochromatin, centromeres and telomeres, central dogma of molecular biology, mitochondria and chloroplast DNA-Gene transfer in

microorganisms-conjugation, Hfr transfer, chromosomal transfer and the mediation by F plasmids, transformation-competence, transduction. Repetitive DNA- Highly repetitive, moderately repetitive and unique DNA sequences, Satellite DNA, Telomerase. Overlapping genes.

UNIT II - REPLICATION

[15 hrs]

Replication-conservative and semiconservative, experimental proof for semiconservative replication, factors involved in prokaryotic and eukaryotic replication, DNA polymerases in prokaryotes and eukaryotes, inhibitors of replication, replication of circular DNA and linear DNA. Sigma & Theta replication. Mitochondrial replication.

UNIT III - TRANSCRIPTION AND GENE REGULATION [10 hrs]

Transcription-promoters, RNA polymerase in prokaryotes and eukaryotes-intiation, elongation and termination of transcription process, inhibitors of transcription, Group I& II introns, post transcriptional modification of mRNA, tRNA and rRNA, Antisense RNA . RNA editing. Operon concept- Lac, arabinose and trp operon.

UNIT IV - GENETIC CODE AND TRANSLATION

[15 hrs]

Genetic code: features and deciphering of genetic code. Wobble hypothesis. Translation- activation of amino acids, initiation, elongation and termination process in prokaryotes and eukaryotes. Inhibitors of protein synthesis in prokaryotes and eukaryotes, post translational modification.

UNIT V - DNA REPAIR & TRANSPOSONS

[15 hrs]

DNA repair: photoreactivation, Excision repair, Post replication and mismatch repair, base and nucleotide excision recombination and SOS repair. Protein targeting-Heat shock proteins, glycosylation; SNAPs and SNAREs, transposons, retroposons.

TEXT BOOKS:

- 1. Watson. J. D, Baker. T. A, Bell. S. P, Gann. A, Levine. M,Lodish. R. Molecular Biology of Gene. 5th The Benjamin /Cummings Pub. Co. Inc, 2003
- 2. Ajoypaul. 2007. Text book of cell and molecular biology. Books and allied. Kolkata,
- 3. Krebs.J.E.et. al., 2011, lewin's genes X (Ed:10), Jones and Barett publishers, US.
- 4. David Freifelder, 2008. Molecular Biology. (Ed: 2). Narosa Publications, New Delhi.

- 1. Lodish, H., Berk, A., Zipursky, S. L., Matsudaira, P., Baltimore, D. and James Darnell, J, 2012. Molecular Cell Biology, 7th edn, Freeman.
- 2. Weaver, R. F. 2005. Molecular Biology. 3rd ed. McGraw Hill publication.
- 3. Nelson, D. L. & Cox, M. M. Lehninger, 2008. Principles of Biochemistry. 5th edn, Freeman.
- 4. Karp, 2010. Cell and Molecular Biology: Concepts and Experiments. 6th edn, Wiley.
- 5. Alberts B. 2002. Molecular Biology of the Cell, (Ed: 3) Garland Science, NY.
- 6. Twyman. 2003. Advanced Molecular Biology. Bios Scientific Publishers Ltd. Oxford, UK.

IM So (DC)		Course Code
I M.Sc (BC)	ENZYMOLOGY	19PBC22
SEMESTER-II		HRS/WK-5
CORE-5		CREDIT-4

- To provide a deeper insight into the fundamentals of enzyme structure and function and kinetics of enzymes.
- ❖ To learn the regulation and inhibition of enzymes.
- ❖ It deals with current applications of enzymes and the methods of immobilization.

COURSE OUTCOMES (CO)

CO1-Students can able to gain knowledge about thermodynamic concepts involved in enzymatic reactions and classification of enzymes.

CO2-Able to understand the kinetics of the enzyme catalysed reaction using different plots.

CO3-To exhibit knowledge and understanding about the enzyme catalytic reactions in the active site with appropriate example

CO4-To understand the mechanisms of enzyme regulation and its allosteric effects with suitable examples. **CO5-**To gain knowledge about the types of inhibition in enzyme catalysis, immobilization of enzymes and its applications.

SEMESTER II	Cou	CourseCode:19PBC22					COURSE TITLE: ENZYMOLOGY							HOURS:5 CREDITS:4
COURSE OUTCOMES	PRO	OGRAN	MME (POS)	OUTCO	MES	PR	PROGRAMME SPECIFIC OUTCOMES (PSOS)							MEAN SCORE OF
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	co's
CO1	3	4	3	5	4	3	4	2	4	3	3	4	3	3.5
CO2	5	4	3	4	3	5	3	4	4	3	4	3	4	3.8
CO3	4	3	2	3	4	4	5	4	3	5	3	4	3	3.6
CO4	5	3	4	3	3	5	4	3	3	4	2	3	4	3.5
CO5	4	3	2	4	3	4 4 3 4 3 4 3 3						3	3.2	
Mean overall score											3.5			

Result: The Score of this Course is 3.5 (High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **High** association with Programme Outcome and Programme Specific Outcome **UNIT I - ENZYMES** [20 hrs]

Introduction, Classification and Nomenclature of enzymes - General characteristics of enzyme activity, factors affecting enzyme activity. First Law & Second Law of thermodynamics. ΔG , characteristics of free energy, entropy and enthalpy. Law of mass action, Zero and first order reaction.

UNIT II - KINETICS OF ENZYME ACTION

[15hrs]

Concept of ES complex, collision, transition state theories and energy of activation, derivation of Michaelis-Menten equation for uni- substrate reactions. Different plots for the determination of K_{m} , V_{max} and their significance. Turn over number. The rate of expression for Bisubstrate reactions for Ping Pong, random & ordered Bi-Bi mechanisms. Multienzyme complex and its function with reference to PDH.

UNIT III - MECHANISM OF ENZYME ACTION

[10hrs]

Acid-base catalysis, covalent catalysis, metal ion catalysis, proximity, orientation effect. Active site – definition, common features of active site – Investigation of active site structure – trapping ES complex, Use of substrate analogue. Modification of amino acid side change by single chemical procedure. Strain& distortion theory. Lock and Chemical modification of active site groups. Site directed mutagenesis of enzymes. Mechanism of action of chymotrypsin and lysozyme.

UNIT IV - ENZYME REGULATION

[15hrs]

General mechanisms of enzyme regulation, product inhibition. Reversible and irreversible. Covalent modifications of enzymes. Allosteric enzymes - positive and negative co-operatively with special reference to aspartate transcarbamoylase & Phosphofructokinase.

UNIT V - INHIBITION AND APPLICATION

[15hrs]

Irreversible inhibition, reversible- competitive, noncompetitive, uncompetitive inhibition. Kinetic differentiation and Graphical analysis- Suicide inhibition. Immobilized enzymes-methods of immobilization-applications of immobilized enzymes. K_i, IC₅₀.Industrial enzymes and its application. Purification and characterization of enzymes.

TEXT BOOKS:

- 1. Trevor Palmer, (2004). Enzymes. 5th edition, Affiliated East –West press (P)Ltd. New Delhi.
- 2. Dixon, E.C.Webb, (1979). Enzymes. 3rd Edition, CJRthorne and K.F.Tipton, Longmans Green & Co, London and Academic Press, New York.
- 3. Nicholas, C. Price , (1998).Fundamentals of Enzymology. 2nd Edition, Oxford UniversityPress. UK

- 1. Zubay,1998" Principles of Biochemistry", 4th ed.. William C.Brown Publ.
- 2. Berg, J. M., Tymoczko, J. L. and Stryer, L. Biochemistry. Freeman, 7th edn, 2011.
- 3. Uhlig H.1998. Industrial enzymes and their applications. John Wiley,
- 4. Balasubramanian. 1998. Concepts in Biotechnology Universities Press (India) Ltd.,
- 5. Chapline, Bucke, 1990. "Protein Biotechnology," 1st edition, Cambridge University Press,
- 6. Marangoni ,2002. Enzyme kinetics. A modern approach, John Wiley.

I M.Sc (BC)	ANALYTICAL BIOCHEMISTRY	Course Code 19PBC23
SEMESTER-II		HRS/WK-5
CORE-6		CREDIT-4

- To understand the bio-analytical techniques along with their theory, working principle, common instrumentation and possible applications.
- To develop the skills to understand the theory and practice of bio analytical techniques.
- ❖ To provide scientific understanding of analytical techniques.

Course Outcomes:

CO1: To gain knowledge about the Principle, instrumentation and application of various types of chromatography and its interpretation.

CO2: To acquire knowledge about the principle, preparation, instrumentation and application of different kinds of electrophoretic techniques.

CO3: To get in-depth understanding about the basic principle: types of rotors, instrumentation and application of different types of centrifugation process.

CO4: Able to exhibit their knowledge about the principle, instrumentation and application of spectroscopic techniques.

CO5: Able to demonstrate their skills in basic concepts of radioactivity, its measurement and application.

SEMESTER II	Cou	rseCo	de:19	PBC2	23	COUI	COURSE TITLE: ANALYTICAL BIOCHEMISTRY							HOURS:5 CREDITS:4
COURSE OUTCOMES	()						PROGRAMME SPECIFIC OUTCOMES (PSOS)							
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	co's
CO1	4	3	5	3	4	5	4	5	4	5	4	4	5	4.2
CO2	4	4	4	5	4	3	5	3	4	5	3	5	4	4.1
CO3	3	4	5	3	3	3	4	5	4	5	4	3	5	3.9
CO4	4	5	4	5	4	4	4	3	5	3	3	5	4	4.1
CO5	CO5 5 3 4 5 4							3 5 4 3 5 4 4 5					5	4.2
	Mean overall score											4.1		

Result: The Score of this Course is 4.1 (Very High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **High** association with Programme Outcome and Programme Specific Outcome **UNIT I** - **CHROMATOGRAPHY** [15 hrs]

Principle, instrumentation and applications of thin layer, gas chromatography and HPTLC. Column chromatography-packing, loading, elution and detection. Column chromatography and its types.Ion-exchange chromatography-preparation of resins, procedure and applications. Molecular exclusion chromatography-principle, gel preparation, operation and applications. Affinity chromatography-

principle, materials, procedure and applications. HPLC– principle, materials, instrumentation and applications, UPLC, UHPLC and software's used to interpret chromatogram.

UNIT II - ELECTROPHORETIC AND ELECTROCHEMICAL TECHNIQUES [15 hrs]

Electrophoresis: General principles. Support media. Cellulose acetate electrophoresis. Electrophoresis of proteins—native gels, SDS-PAGE, gradient gels, isoelectric focusing, 2-D PAGE. Detection, estimation and recovery of proteins in gels. Electrophoresis of nucleic acids— agarose gel electrophoresis, DNA sequencing gels.

UNIT III - CENTRIFUGATION TECHNIQUES

[10 hrs]

Centrifugation—principle, types of centrifuges, rotors-types, preparative centrifugation— types, instrumentation and applications. Analysis of subcellular fractions. Analytical ultracentrifuge—instrumentation and applications. Sedimentation velocity and sedimentation equilibrium.

UNIT IV - SPECTROSCOPIC TECHNIQUES

[20 hrs]

Laws of absorption and absorption spectrum., UV-visible spectrophotometry and spectrofluorimetry.Flame spectroscopy– principle and applications of atomic absorption and flame emission.NMR, FTIR, mass spectroscopy: principle, instrumentation and application.LCMS, GCMS,ICPMS.

UNIT V - RADIOISOTOPE TECHNIQUES

[15 hrs]

Units of radioactivity. Detection and measurement of radioactivity— GM counter, solid and liquid scintillation counting, quenching and quench correction, scintillation cocktails and sample preparation, Cerenkov counting, Autoradiography, Applications of radioisotopes in biology. Radiation hazards and safety aspects.

TEXTBOOKS:

- 1. AvinashUpadhyaye, and NirmalendheNath, (2002). Biophysical Chemistry Principles and Techniques. 3rd edition, Himalaya Publishers,New Delhi.
- 2. Keith Wilson, and John Walker, (2010). Principles and Techniques of Practical Biochemistry. 7th edition, Cambridge University Press. UK.
- 3. Boyer, R. 2000. Modern Experimental Biochemistry. 3rd ed. Addison Weslery Longman,

- 1. Simpson CFA &Whittacker, M. Electrophoretic techniques.
- 2. Sambrook, 2001.Molecular Cloning. Cold Spring Harbor Laboratory.
- 3. Friefelder and Friefelder, 1994. Physical Biochemistry Applications to Biochemistry and Molecular Biology. WH Freeman & Co.
- 4. Pavia, 2000. Introduction to Spectroscopy. 3rd ed. Brooks/Cole Pub Co.

I M.Sc (BC)	PLANT BIOCHEMISTRY	Course Code 19EPB24A
SEMESTER-II		HRS/WK-5
ELECTIVE-II		CREDIT-4

- ❖ To acquire knowledge of the chemistry of important biological processes in plants.
- ❖ To acquire knowledge about photosynthesis, metabolism of nitrogen compounds and about molecular mechanisms of signalisation and regulation.
- ❖ To acquire knowledge about the importance of secondary metabolites and stress metabolism.

Course Outcomes (CO)

CO1- Able to gain knowledge about the different components of plant cells apart from mechanism of absorption by plants.

CO2- To get in-depth knowledge about the functions and mechanisms of different plant hormones.

CO3- To acquire knowledge about the steps and mechanisms involved in photosynthesis of plants.

CO4- To know and interpret the different secondary metabolites present in the plants and its stress adaptation.

CO5- To gain thorough understanding about the nitrogen fixing mechanisms adopted by the soil microbes.

SEMESTER II	Cou	CourseCode:19EPB24A					COURSE TITLE: PLANT BIOCHEMISTRY							HOURS:5 CREDITS:4
COURSE OUTCOMES	(= 0.0)						OGRAN	ME SP	ECIFIC	OUTCO	OMES	(PS	OS)	MEAN SCORE OF
OCICONES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	co's
CO1	4	4	3	5	4	3	4	3	4	5	4	3	4	3.8
CO2	5	3	4	4	3	4	5	4	3	4	5	4	3	3.9
CO3	4	4	3	3	4	5	3	4	3	4	5	3	4	3.8
CO4	5	3	3	4	3	3	5	3	4	3	4	4	3	3.6
CO5	CO5 4 4 3 4 4						4	4	4	3	4	3	4	3.8
	Mean overall score										3.8			

Result: The Score of this Course is 3.8 (High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **High** association with Programme Outcome and Programme Specific Outcome **UNIT I** - **PLANT CELL & ABSORPTION** [10 hrs]

Discovery and definition of plant cell – cell wall, plasmadesmata, meristematic cells, and secretary systems. Mechanism of absorption .Ion exchange passive absorption. Active absorption .The carrier concept.Donnan's equilibrium.

UNIT II - PLANT HORMONES

[10 hrs]

Structure, biosynthesis, mode of action & physiological effects of auxins, giberellins, cytokinins and IAA. Biochemistry of seed dormancy, seed germination, fruit ripening and senescence. Synthetic seeds.

UNIT III - PLANT PIGMENTS & PHOTOSYNTHESIS

[20 hrs]

Structure & synthesis of chlorophyll, phycobilins and carotenoids. Photosynthesis, photosystem I &II - Lightabsorption, Hill reaction, Red drop & Emerson's enhancement effect. Cyclic and non-cyclic photophosphorylation, Calvin cycle. Photosynthesis-factors and regulation. Chloroplast ATP synthase, complexes associated with thylakoid membranes, light harvesting complexes. C3, C4 pathway and CAM.

UNIT IV -SECONDARY METABOLITES & STRESS METABOLISM [15 hrs]

Secondary metabolites in plants –classification & function of alkaloids, terpenoids, tannins, polyphenols, flavanoids, saponins, lignin and pectin.Stress metabolism in plants - Environmental stresses, salinity, water stress, heat, chilling and their impact on plant growth. Heavy metals, radiations and their impact on plant growth, criteria of stress tolerance.

UNIT V -NITROGEN FIXING ORGANISMS

[20hrs]

Nitrogen fixing organisms: Structure and mechanism of action of nitrogenase: Rhizobium symbiosis.Leghaemoglobin; strategies for protection of nitrogenase against the inhibitory effect of oxygen; nif genes of klebsiellapnemoniae including their regulation. Nitrate Assimilation: Nitrate reductase; regulation of nitrate assimilation. Ammonia assimilation by glutamine synthetase- glutamine oxoglutarate amino transferase (GS-GOGAT). Nitrite and nitrate reductase.

TEXT BOOKS:

- 1. Jain.V.K., 2005. Fundamentals of Plant Physiology, revised 1st edition S.Chand and Co.
- 2. Pandey.S.N.,andSinha.B.K.,Plant Pysiology,1999, Vikas Publishing House.
- 3. Heldt, HW. (2005), Plant Biochemistry. 3rd Edition, Elserveir Academic Press Publication, USA.

- 1. Solisbury and Ross, Plant Physiology, 3rd edition, CBS Publishers and Distributors.
- 2. Hans-Walter Held, Plant Biochemistry, 3rd edition, Elsevier India Pvt.Ltd.
- 3. Bonner and Varner, Plant Biochemistry, 3rd edition, Academic Press.
- 4. Bowsher, C, Steer, M. and Tobin, A (2008). Plant Biochemistry. Garland Science, Taylor and Francis Group, LLC. New York.
- 5. Verma, 2001. Plant physiology, 7th Revised edition, Emkay Publications.
- 6. S. N. Pandey and B.K. Sinha, 1999. Vikas Publishing House Pvt. Ltd, 3rd edition, Plant Physiology.

IMC (DC)		Course Code
I M.Sc (BC)	ENDOCRINOLOGY	19EPB24B
SEMESTER-II		HRS/WK-5
ELECTIVE-II		CREDIT-4

- ❖ To provide students with a broad understanding of the major human endocrine glands and their hormones, together with understanding hormones action and their effect on target cells.
- To provide students with an understanding of the medical conditions resulted from abnormal hormone secretion and the laboratory tests that are used to diagnose these conditions

COURSE OUTCOMES:

CO1:To gain knowledge about the functions of pituitary, hypothalamus and pineal gland hormones and its regulations.

CO2:To learn and understand the structure and functions of thyroid, parathyroid hormones and its regulations.

CO3:To understand the structure and functions of gastrointestinal and pancreatic hormones.

CO4:To acquire knowledge about the structure and functions of adrenal hormones and its regulation.

CO5:To gain knowledge about the structure and functions of male and female sex hormones and its regulation.

SEMESTER II	Cou	Course Code:19EPB24B					COURSE TITLE: ENDOCRINOLOGY							HOURS:5 CREDITS:4
COURSE OUTCOMES							PROGRAMME SPECIFIC OUTCOMES (PSOS)							MEAN SCORE OF
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	CO'S
CO1	4	4	3	4	4	4	4	3	5	4	5	3	4	3.9
CO2	3	3	4	4	3	3	4	3	4	4	5	2	4	3.5
CO3	4	4	5	3	3	4	3	4	3	4	3	4	3	3.6
CO4	4	5	4	3	3	3	4	3	4	4	4	3	4	3.7
CO5	3 4 4 3 3					5 4 4 4 3 4 3 3							3	3.6
	Mean overall score										3.7			

Result: The Score of this Course is 3.7 (High)

					, 0,
Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **High** association with Programme Outcome and Programme Specific Outcome **UNIT I - HYPOTHALAMIC, PITUITARY & PINEAL GLAND HORMONES [20hrs]**

Definition & Classification - Mechanism of hormone action . Definition of signals, ligands and receptors, endocrine, paracrine and autocrinesignalling. Pituitary Hormones: Anatomy of pituitary gland, hormones of the pituitary, Hypothalamic releasing factors, Anterior pituitary hormones: biological actions, regulation and disorders of growth hormones, ACTH, gonadotrophins prolactin and Leptin. Posterior pituitary hormones: vasopressin and Oxytocin- biological actions, regulation and disorders, MSH. Pineal gland -

melatonin hypothesis, melatonin secretion and circulation, proposed role of pineal gland and mechanism of action.

UNIT II - THYROID & PARATHYROID HORMONES [15 hrs]

Thyroid hormones – synthesis, secretion, regulation, transport, metabolic fate and biological actions. Antithyroid agents. Parathyroid hormone - Synthesis, Secretion and biological actions. Calcitonin and calcitriol - Hormonal regulation of calcium and phosphate metabolism. Hypercalcemia and hypocalcemia, Rickets and osteomalacia.

UNIT III - ADRENAL & GASTRO INTESTINAL HORMONES [15 hrs]

Structure of Adrenal gland. Adrenal cortical hormones - Synthesis, regulation, transport, metabolism and biological effects. Cushing's syndrome, aldosteronism, congenital adrenal hyperplasia, adrenal cortical insufficiency. Adrenal medullary hormones — synthesis, secretion, metabolism, regulation and biological effects of catecholamines. Phaeochromocytoma . G.I. Tract hormones — chemical nature & functions of Gastrin, Enterogastin, Secretin & Cholecystokinin

UNIT IV - PANCREATIC HORMONES

[10 hrs]

Pancreatic hormones – cell types of islets of Langerhans -synthesis, regulation, biological effects and mechanism of action of glucagon and insulin. Somatostatin, leptin, Adiponectin, Pancreatic polypeptide and Ghrelin.

UNIT V - SEX HORMONES

[15 hrs]

Male sex hormones: Biosynthesis, regulation, transport, metabolism and biological actions of androgens. Hypogonadism and gynecomastia.

Female sex hormones: Biosynthesis, regulation, transport, metabolism and biological effects of oestrogen and progesterone. The menstrual cycle. Amenorrhoea.

TEXT BOOKS:

- 1. Robert Murray, Bender, (2012) Harper's Illustrated Biochemistry.
- 2. Williams Textbook of Endocrinology Wilson and Foster 8th ed.
- 3. Devlin, 1997, Textbook of Biochemistry (with clinical correlation), John Wiley, USA.

- 1. Principles of Biochemistry Mammalian Biochemistry Smith. McGraw Hill 7th ed
- 2. Nelson, D. L. & Cox, M. M,2008. Lehninger Principles of Biochemistry. 5th edn, Freeman.
- 3. Wilson and Foster, 1992, Textbook of Endocrinology, (8th edn), W.B. Saunders, USA.
- 4. Mac. E. Hadley and Jon. E. Levin, 2009, Endocrinology 6th ed., Darling Kindersly Pvt. Ltd., India
- 5. Guyton, A.C. and Hall, J.E (2006), Textbook of Medical Physiology, 11th Edition, Saunders Co. Pennsylvania.

I B.Sc (Biochem)		19BC101
SEMESTER-I	BIOMOLECULES-I(60hrs)	HRS/WK-4
CORE-1		CREDIT-3

Learningobjectives:

- ❖ To provide information about biochemically important aspects of carbohydrates and nucleic acids using appropriate examples.
- ❖ To understand the structural principles that govern reactivity/physical properties of molecules as opposed to learning structural detail
- ❖ To acquire knowledge about the structure and function of heterocyclic compounds.

Course outcomes

CO1-Students are able to understand the nature and types of chemical bonds and types of isomerism.

CO2-Students are able to comprehend the classification of monosaccharides and their properties.

CO3-Students are able to gain knowledge about classification and properties of disaccharides and polysaccharides.

CO4-Students are able to acquire knowledge about the structure and types of DNA and RNA

CO5-Students are able to exhibit the understanding about the structure and functions of heterocyclic compounds

SEMESTER	SUB	CODE	:19B	C101				BI	OMOL	ECULE	SI			HOURS:4
I														CREDITS:3
		PR	OGRA	MME									MEAN	
COURSE		OUT	COM	ES(PO)			PROG	RAMM	ESPECI	FICOUT	ГСОМЕ	S(PSO)		SCOREOF
OUTCOMES														CO'S
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	
CO1	4	5	4	3	4	4	4	4	3	4	3	4	4	3.5
CO2	3	4	4	4	4	4	3	4	4	4	3	4	4	3.8
CO3	4	4	3	4	4	3	4	4	4	3	4	3	4	3.7
CO4	4	4	4	3	4	3	3 3 5 5 5 3					4.3		
CO5	CO5 4 4 4 3 4 3 3 3 4 3 4 3									3.7				
	Mean overall score										3.8			

 $This Course is having \mbox{\bf HIGH} association with Programme Outcome and Programme Specific Outcome \mbox{\bf Outcome}$

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

UNIT I CHEMICAL BONDING

[10hrs]

Chemical Bonding- nature and types- ionic bond (or) polar bond, covalent (or) non-polar bonds, co-ordinate bond and non-covalent bonds (Hydrogen, hydrophobic, Vander walls interactions). Isomerism - structural isomerism and stereoisomerism.

UNIT II CARBOHYDRATES I

[15hrs]

Carbohydrates: definition, classification — monosaccharides, oligosaccharides and polysaccharides; occurrence, structure and functions of monosaccharides (glucose and fructose). General properties with reference to glucose, anomers, epimers, enantiomers and mutarotation. Ring and straight chain structure of glucose (Haworth projection

Structure, occurrence, properties and biological importance of disaccharides(sucrose, lactose, maltose). Inversion of sucrose. Structure, occurrence, properties and biological importance of polysaccharides: Storage polysaccharides (starch, glycogen & inulin), Structural polysaccharides (cellulose, chitin, pectin), Heteropolyasaccharides (hyaluronic acid &heparin).

UNIT IV NUCLEIC ACIDS

[10 hrs]

Nucleicacids—Bases, Nucleosides and Nucleotides, Phosphodiester linkage, DNA and RNA, Structure—double helical structure of DNA, Properties of DNA—Denaturation, Renaturation, Tm and Hyperchromicity, Effect of acid & alkali on DNA. Types of DNA, Structure of RNA and its major types - tRNA, mRNA and rRNA.

UNIT V HETEROCYLICCOMPOUNDS

[15hrs]

Porphyrin nucleus and its classification. Biological importance of Heterocylic compounds-Thiazole, Indole, Pyridine, Pteridine, Pyrrole and Imidazole.

Textbooks:

- 1. RenukaHarikrishnan,1995,"BiomoleculesandEnzymes"(secondedition),Madurai, IndrajaPathipagam
- 2. J.L.Jain, Sanjay Jain and Nitin Jain, 1997, "Fundamentals of Biochemistry" (6^{th} Edition), New Delhi, S.Chand & Company Ltd

References:

- 1. Power&Chatwal"Biochemistry", 4thedition, Himalaya Publishing House
- 2. Cambell&Farrell,2007, "Biochemistry" 5thedition, Delhi, BabaBorkhanath printers
- 3. T.N.Pattabiraman, 1993 "Principles of Biochemistry" 5thedition, Bangalore,

Gajanana Book Publishers and Distributors

- 4. Dr.A.C.Deb,1983, "FundamentalsofBiochemistry" (8thedition), Kolkata, NewCentral Book Agency
- 5. Lehninger, Nelson And Cox ,1982, "Principles of Biochemistry", (4th ed)UK, Macmillan Worth Publishers.
- 6. Chemistry of chemical bonding, Jyothi Roshan Kumar. 2008

IB.Sc (Biochem)	CELL BIOLOGY	19BC102
SEMESTER-I		HRS/WK-4
CORE-2	(60hrs)	CREDIT-3

- ❖ To understand the structure and purpose of the basic components of the Cell and its organelles
- ❖ To understand the phases of cellcycle and cell division.
- ❖ To acquire knowledge about microfilaments and microtubules.

Course Outcomes:

CO1: To understand the structure and basic components of prokaryotic and eukaryotic cells and also gain insights about various types of membrane transport. **CO2:**Students gain knowledge and understanding about the morphology, types and functions of cell organelles such as lysosomes, ribosomes and chloroplast.

CO3: Students acquire knowledge about the morphology and functions of cell organelles like Mitochondria, Golgi complex and micro bodies.

CO4:To understand the structure and functions of chromosomes and learn the phases of cell cycle and cell division.

CO5:Students are able to understand the components and functions of cytoskeleton and their distribution.

SEMESTER	SUB	CODE	: 19B0	C 102				(CELLB	IOLOG	Y			HOURS:4
I												CREDITS:3		
COURSE			OGRAI COME				PROGRAMMESPECIFICOUTCOMES(PSO)						MEAN	
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	SCOREOF CO'S
CO1	5	5	2	2	2	5	2	5	3	2	5	5	4	3.6
CO2	5	5	2	2	2	5	2	2	2	2	2	5	3	3.0
CO3	5	5	2	2	2	5	2	2	2	2	2	5	3	3.0
CO4	5	5	2	2	5	5	3	5	5	5	5	5	2	3.9
CO5	5	5	2	2	2	5	2	3	2	2	5	5	3	3.0
Mean overall score										3.3				

 $This Course is having \mbox{\bf HIGH} association with Programme Outcome and Programme Specific Outcome \mbox{\bf Outcome}$

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	VeryHigh

UNIT I CELL AND TRANSPORT

[15hrs]

Prokaryoticandeukaryoticcell.Cellmembrane:chemicalcompositionofFluidMosaicModel. Carbohydrate, lipids, proteins and their function in FMM. Membrane transport – Types of transport, passive- (diffusion, facilitated diffusion, osmosis) and active transport-Na+-K+, ATPase, sodium potassium pump, Ca²⁺and ATPasepumps, endocytosis and exocytosis. Symport and antiport.

UNIT II CELL ORGANELLES-I

[10hrs]

Endoplasmic reticulum: occurrence, morphology, types and function. Enzymes of the ER membrane.Lysosomes:structure,typesandchemicalcompositionandenzymesoflysosomes. Ribosomes: structure, types and functions. Chloroplast – structure and function.

UNIT III CELL ORGANELLES-II

[10hrs]

Mitochondria: morphology and function. Golgi complex: structure & function. Microbodies: structure, morphology and function, peroxisomes and glyoxysomes

UNIT IV CELL DIVISION AND CELL CYCLE

[15hrs]

Nucleus – structure, composition and biochemical function, chromosome structure -polytene and lambrush chromosome with example. Cell cycles – Phases of cell cycle, mitotic and meiotic cell cycle, apoptosis and necrosis.

UNIT-V MICROTUBULES AND MICROFILAMENTS

[10hrs]

Cytoskeleton - components and biological functions. Microtubules, Microfilaments and IF proteins: Distribution, chemical composition and function.

TEXTBOOKS:

- 1. Verma.P.SandAgarwal.P.K,1999, "Cellbiology, Genetics, Molecular biology, Evolution and Ecology", (24th edition) New Delhi, S.Chand& Company Ltd
- 2. DeRobertisEDPandDeRobertisEMF,1987,"CellandMolecularBiology", (8thedition),New Delhi, B.I.WaverlyPvt Ltd

REFERENCES:

- 1. SheelaA.Stanly,2008,"Cellbiologyforbiotechnologist",(IEdition),Narosa Publishing House Pvt-Ltd
- 2. PrakashS.Lohar, 2007, "CellandMolecularbiology" (Iedition), Chennai, MJP publishers
- 3. DarnellJ,LodishH,BaltimoreD,1986, "Molecularcellbiology", England, WH Freeman.
- 4. Cellbiology–Gerald karp(7thedition)– International student version, Wiley publications

IB.Sc (Biochem)	BIOMOLECULES-II	19BC203
SEMESTER-II		HRS/WK-4
CORE-3	(60hrs)	CREDIT-3

- To provide information about biochemically important aspects of the chemistry of lipids and proteins using appropriate examples.
- To understand the structural principles that govern reactivity/physical properties of molecules.
- To acquire knowledge about the structure and function of biologically important peptides/proteins.

Course Outcomes:

CO1: Students are able to understand the classification, structure and functions of lipids and their properties.

CO2: Students are able to gain knowledge about the classification of amino acids and their properties.

CO3: Students are able to learn and understand the different classification of proteins, properties, and their separation methods.

CO4: Students are able to acquire knowledge about the different levels of protein structure apart from the determination of amino acid sequences and chemical synthesis of proteins.

CO5: To acquire knowledge about the structure and function of biologically important peptides.

SEMESTER	SUB	CODE	: 19B(C 203				BI	OMOLI	ECULES	S-II			HOURS:4			
П														CREDITS:3			
COURSE	PROGRAMME OUTCOMES(PO)					PROGRAMMESPECIFICOUTCOMES(PSO)								MEAN SCOREOF			
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	CO'S			
CO1	3	5	2	2	2	4	4	4	3	2	4	4	4	3.3			
CO2	5	4	2	3	2	5	5	5	5	3	3	4	3	3.8			
CO3	4	5	3	2	3	4	4	4	4	3	4	3	4	3.6			
CO4	5	4	2	2	2	3	5	5	3	2	3	4	4	3.4			
CO5	4	5	2	3	3	5	5	5	5	2	4	4	4	3.4			
					Mean	overa	Mean overall score										

This Course is having HIGH association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	VeryHigh

UNIT I - LIPIDS [15 hrs]

Lipids – definition and classification of lipids, Physical properties, classification of fatty acids –saturated, unsaturated and essential fatty acids, properties of fatty acids (Iodine number, Acid number, RM number, Saponification number and Rancidity). Structure and function of commonly occurring phospholipids (Lecithin, cephalin, phosphatidyl inositol and phosphotidyl serine) Sphingomyelin, plasmalogen, sterols (cholesterol), Glycolipids- cerebrosides and gangliosides.

UNIT II - AMINO ACIDS

[10 hrs]

Classification of Amino acids based on structure, metabolism & polarity. Essential &non essential amino acids, non protein amino acids. General properties of amino acids. Titration curve of amino acids.

UNIT III – PROTEIN

[10 hrs]

Classification of proteins based on size and shape, solubility, composition & functions. Peptide bond. General reactions of proteins (Reactions of both NH₂ group & COOH group). Separation technique of protein-Ammonium salt fractionation, solvent fractionation, dialysis and lyophilisation.

UNIT IV - PROTEIN STRUCTURE

[15 hrs]

Structure of proteins- primary, secondary, tertiary & quaternary. Ramachandran plot and forces stabilizing the structure of proteins, Determination of amino acid sequence, N -terminal determination- Edman's and Dansylchloride method. C-terminal determination-enzymatic method, solid phase polypeptide synthesis.

UNIT V - BIOLOGICAL IMPORTANT PROTEINS [10 hrs]

Structure and functions of biologically important peptides- Glutathione, vasopressin & oxytocin. Biologically important proteins- structure and functions of Globular proteins (Haemoglobin, Myoglobin), Fibrous protein (Keratins, collagen).

TEXT BOOKS:

- RenukaHarikrishnan ,1995, "Biomolecules and Enzymes" (second edition), Madurai, IndrajaPathipagam
- J.L.Jain, Sanjay Jain and Nitin Jain,1997, "Fundamentals of Biochemistry" (6th Edition), New Delhi, S.Chand& Company Ltd

- 1. Power & Chatwal "Biochemistry" 4th edition, Himalaya Publishing House
- 2. Cambell&Farrell, 2007, "Biochemistry" 5th edition, Delhi ,BabaBorkhanath printers
- 3. Dr.A.C.Deb ,1983, "Fundamentals of Biochemistry" (8th edition), Kolkata, New Central Book Agency
- 4. Lehninger, Nelson And Cox, 1982, "Principles Of Biochemistry", (4TH Ed)UK, Macmillan Worth Publishers.
- 5. Donald Voet and Judith Voet,"Biochemistry",2nd edition,John Wiley &Sons,Inc,NY

I B.Sc (Biochem)	NUTRITIONALBIOCHEMISTRY	19BC204
SEMESTER-II	(60hrs)	HRS/WK-4
CORE-4		CREDIT-3

OBJECTIVES:

- To study the nutritional aspects of various foodstuffs and its measurement.
- ❖ To study the functional aspects of vitamins and minerals
- ❖ To enable them to gain knowledge in the nutritional management of different age groups

COURSE OUTCOMES:

CO1: To understand and demonstrate their nutritional measurement of different food stuffs.

CO2: Able to gain knowledge about the biological value of proteins by different methods

CO3: To gain insights depth about the deficiency and functional aspects of different types of vitamins

CO4: To acquire knowledge about the physiological functions and deficiency of minerals

CO5: Able to demonstrate different dietary plan for different age groups

SEMESTER	SUB	CODE	:19BC	204			NUTRITIONALBIOCHEMISTRY							HOURS:4
П														CREDITS:3
COURSE		PROGRAMME OUTCOMES(PO)					PROGRAMMESPECIFICOUTCOMES(PSO)							
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8	SCOREOF CO'S
CO1	5	4	3	4	4	3	4	3	5	4	3	4	4	3.8
CO2	4	3	3	5	5	3	3	4	5	4	5	4	4	4.0
CO3	3	5	3	3	3	4	5	3	3	5	4	3	5	3.8
CO4	3	4	4	5	5	3	2	4	5	4	5	3	4	3.7
CO5	5	3	3	3	3	2	3	3	5	3	3	2	3	3.2
	Mean overall score										3.7			

This Course is having **HIGH** association with Programme Outcome and Programme S pecific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	VeryHigh

UNIT I-FOOD NUTRITION

[9 hrs]

Basic food groups – Energy yielding, body building and protective foods. Basic concepts of energy expenditure, Unit of energy, measurement of foodstuffs by bomb calorimeter, Calorific value of proteins, carbohydrates and lipids, RQ of

foods, Basic metabolic rate (BMR), its measurements and influencing factors, SDA of foods. Role of fibre and dietary lipids (Omega 3 and 6 fatty acids) in our body.

UNIT II - BIOLOGICAL VALUE OF PROTEIN

Biological value of proteins, evaluation of proteins by nitrogen balance method – DC, BV, NPU and NAP, sparing action of carbohydrates, single cell proteins (SCPs) (e.g., spirulina only). PCM: Kwashiorkor and Marasmus- preventive and curative measures.

UNIT III - VITAMINS [9 hrs]

Vitamins –classification- sources, RDA, deficiency and functions of fat soluble vitamins (A,D,E,K) and water soluble vitamins $(B-complex-B_1,\,B_2,\,B_5,\,B_6,\,B_9,\,B_{12})$ and vitamin – C). Role of Vitamin as antioxidant and co-factor.

UNIT IV – MINERALS [9 hrs]

Minerals – physiological role and nutritional significance of principal and essential trace elements (sodium, potassium, calcium. Magnesium, phosphorous, copper, zinc, iron, iodine, fluorine, selenium, Molybdenum). Mineral toxicity with reference to copper & iron.

UNIT V - NUTRITIONAL REQUIREMENTS [9 hrs]

Composition of balanced diet. RDA. Nutritional requirements for infants, children, adolescents, adult (male and female), pregnant and lactating women and old age. Nutritional requirements in disease condition – hypertension and diabetes.

TEXT BOOKS:

- 1. Dr. M. Swaminathan, 1987, "Food and Nutrition Vol I&II", Second edition, Bangalore, Bappco Publishers.
- 2. M.N Chatterjea and RanaShinde, "Text book of Medical Biochemistry", 4th edition, Jaypee Publishers, New Delhi

- 1. Patricia Trueman, 2007, "Nutritional Biochemistry" (I edition), Chennai, MJ publishers
- 2. Darnell J, Lodish H, Baltimore D, 1986, "Molecular Cell Biology", England, WH Freeman publishers.
- 3. William's Basic Nutrition and Diet Therapy Williams (14th edition), Staci Nix.
- 4. U. Sathyanarayana and U. Chakrapani ,"Biochemistry", Books And Allied Publishers.
- 5. Dr.A.C.Deb ,1983, "Fundamentals of Biochemistry" (8th edition), Kolkata, New
- 6. Central Book Agency

YEAR – I		19MB101
SEMESTER - I	FUNDAMENTALS OF MICROBIOLOGY (For the students who are admitted in the year	HRS/WK -
CORE - 1	2019 – 2020 and onwards)	CREDITS - 3

Objective: To make the students understand the basic principles in Microbiology

Course Outcomes:

Upon successful completion of the course, the student:

CO 1: will be able to appreciate the discoveries in Microbiology

CO 2: will be able to identify the various structures in bacterial cell

CO 3: will be able to apply the principles of various microscopes

CO 4: will be able to explain different methods of physical sterilization

CO 5: will be able to elaborate chemicals used in sterilization

SEMESTER : I			RSE C 9MB10			COURSE TITLE: FUNDAMENTALS OF MICROBIOLOGY			HOURS : 3	CREDITS:	
COURSE OUTCOME		_	GRAN COME	MME S (PO)		S	OGRAM PECIFI COMES	C	MEAN S	SCORE OF	
OUTCOME	PO	PO	PO	PO	PO	PSO	PSO	PSO	(Cos	
S	1	2	3	4	5	1	2	3			
CO1	3	5	4	2	2	5	3	3		3.2	
CO2	2	5	3	4	3	4	5	4		3.7	
CO3	2	4	4	4	3	4	5	5	(3.7	
CO4	3	5	4	4	4	4	5	5	4	4.2	
CO5	3	5	4	5	5	4	5	5	4	4.5	
	Mean Overall Score										

Result: The score of this course is 3.8 (High)

Associati on	1%-20%	21%-40%	41%-60%	61%-80%	81%- 100%
Scale	1	2	3	4	5
Interval	0<=rating<	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating	4.1<=
	=1			<=4	ratin
					g<=5
Rating	Very Poor	Poor	Moderate	High	Very
					High

This Course is having **HIGH** association with Programme Outcomes and Programme Specific Outcomes.

Unit – 1 (9 Hrs)

Introduction - History (Discoveries - Contributions of Women Scientists in Microbiology) - Scope of Microbiology - Employability in Microbiology (Job opportunities and Entrepreneurship)

Unit - 2 (9 Hrs)

Morphology - Shape, size, arrangement of Bacteria - Structure of bacterial cell - Structure and functions of cell organelles (Cell wall, structures found outside the cell wall and within the cell wall) - Structure of Endospore

Unit - 3 (9 Hrs)

Microscopy - Simple, Compound, Dark-field, Phase-contrast, Fluorescent, Electron Microscopes - Stains and dyes - staining methods.

 \setminus Unit – 4 (9 Hrs)

Sterilization - Physical agents - High temperature, Low temperature, Desiccation, Osmotic pressure, Radiation, Filtration

Unit – 5 (9 Hrs)

Sterilization - Chemical agents - Phenols and phenolic compounds, Alcohols, Halogens, Heavy metals and their compounds, Dyes, Synthetic detergents, Quaternary ammonium compounds, Aldehydes, Gaseous agents - Antibiotics - Classification, Mode of action — Antifungal and antiviral agents.

Text Book

 Prescott, L. M., J. P. Harely and D. A. Klain, Microbiology, 2003 (5th Edition) McGraw Hill, New York.

Reference Books

- Atlas R. A. Principles of Microbiology (2nd Edition), 1997. Wm. C. Brown Publishers, Iowa.
- Salle A. J., Fundamental Principles of Bacteriology, 1974 (TMH Edition), Tata McGraw Hill Publishing Company, New Delhi.

E-Reference

• http://www.microbeworld.org

YEAR – I	MICROBIAL TAXONOMY	19MB102
SEMESTER - I	(For the students who are admitted in the	HRS/WK - 3
CORE - 2	year 2019 – 2020 and onwards)	CREDITS - 3

Objective: To make the students understand the diversity of microorganisms

Course Outcomes:

Upon successful completion of the course, the student:

CO 1: will be able to appreciate the concept of classification

CO 2: will be able to compare various groups of bacteria

CO 3: will be able to describe various fungi

CO 4: will be able to explain the characteristics of algae and protozoa

CO 5: will be able to elaborate the characteristics of viruses

SEMESTER		COU	RSE C	ODE:		COU	RSE TI	TLE:	HOURS	CREDITS
:		19	9MB10)2		MICROBIAL			:	:
I						TAXONOMY			3	3
COURSE		PRO	GRAN	ИМЕ		PROGRAMME			MEAN SCORE OF	
OUTCOME		OUTO	COME	S (PO)		S	PECIFI	C		COs
S						OUTO	COMES	(PSO)		
	PO	PO	PO	PO	PO	PSO	PSO	PSO		
	1	2	3	4	5	1	2	3		
CO1	3	3	2	2	3	4	4	4	3	3.12
CO2	3	3	3	3	2	4	4	4	3	3.25
CO3	3	3	2	2	3	3	4	4	3	.00
CO4	3	2	3	3	3	4	4	4	3	3.25
CO5	4	3	3	2	3	4	4 4 4			3.37
	Mean Overall Score									

Result: The score of this course is 3.19 (High)

Associat	1%-20%	21%-40%	41%-60%	61%-80%	81%-
ion					100%
Scale	1	2	3	4	5
Interval	0<=rating<=	1.1<=rating<=	2.1<=rating	3.1<=rating<=	4.1<=ratin
	1	2	<=3	4	g<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **HIGH** association with Programme Outcomes and Programme Specific Outcomes.

Unit - 1 (9 Hrs)

Classification - Haeckel's, Whitaker's - Prokaryotes and eukaryotes - Evolution of microorganisms - Taxonomical ranks, Binomial Nomenclature - Characteristics used in Taxonomy

Unit - 2 (9 Hrs)

Outline of bacterial classification according to Bergey's manual – Brief account of important groups of bacteria - Archaeobacteria, Spirochetes, *Mycoplasma*, Actinomycetes, Photosynthetic bacteria, Cyanobacteria, Methanogenic bacteria, Sulfate utilizing bacteria.

Unit - 3 (9 Hrs)

Fungi – characteristics, morphology, reproduction, physiology, classification – Fungi of special interest - *Mucor*, *Rhizopus*, *Penicillium*, *Neurospora*, *Agaricus*, *Saccharomyces*, *Candida*, Lichens, mycorrhiza

Unit - 4 (9 Hrs)

Algae -occurrence, importance, characteristics, classification - Algae of special interest - *Chlamydomonas*, *Euglena*, *Volvox*, diatoms - Protozoa - occurrence, free-living, symbiotic, morphology, reproduction, classification - Protozoa of special interest - *Amoeba*, *Paramecium*

Unit – 5 (9 Hrs)

Viruses - general characteristics, morphology, classification - viruses of bacteria, plants, animals, human beings - T4 phage, TMV, rabies, HIV as examples.

Text Book

• Prescott, L. M., J. P. Harely and D. A. Klain, Microbiology, 2003 (5th Edition) McGraw Hill, New York.

Reference Books

- Michael J. Pelzar. Jr., E.C.S. Chan, Noel R. Krieg, Microbiology, 1993 (Fifth edition), Tata McCraw Hill, New Delhi.
- Roger Y. Stanier, John L. Ingraham, Mark L. Wheelis, Page R. Painter, Microbiology 1987 (5^{lh} Edition), Macmillan.

E-Reference

• www.asm.org

YEAR – I	GROWTH AND NUTRITION OF	19MB203
SEMESTER - II	MICROORGANISMS	HRS/WK - 3
CORE - 3	(For the students who are admitted in the year 2019 – 2020 and onwards)	CREDITS - 3

Objective: To make the students understand the basic principles of microbial growth

Course Outcomes:

Upon successful completion of the course, the student:

CO1: will be able to describe microorganisms based on nutrition

CO2: will be able to identify the factors affecting bacterial growth

CO3: will be able to apply the concept of microbial growth

CO4: will be able to explain the process of bacterial reproduction and motility

CO5: will be able to explain different methods of nutrient uptake in microorganisms

SEMESTER : II			RSE C 9MB20			GR NU	JRSE TI OWTH A FRITION OORGA S	AND N OF	HOURS : 3	CREDITS: 3
COURSE OUTCOME S	PROGRAMME OUTCOMES (PO) PO PO PO PO PO					PROGRAMME SPECIFIC OUTCOMES (PSO) PSO PSO PSO			MEAN SCORE OF COs	
٥	1	2	3	4	5	1	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$			
CO1	2	5	4	4	3	3 3 4			3.5	
CO2	2	4	4	4	4	3	3	4	4	4.3
CO3	2	3	3	4	3	2 3 3		2	2.8	
CO4	3	5	4	4	4	3 5 4		4	4.0	
CO5	3	3	3	5	5	4 4 4		3	3.8	
Mean Overall Score									3.6	

Result: The score of this course is 3.6 (High)

Associatio	1%-20%	21%-40%	41%-60%	61%-80%	81%-
n					100%
Scale	1	2	3	4	5
Interval	0<=rating<=	1.1<=rating<=	2.1<=rating<=	3.1<=rating<=	4.1<=ratin
	1	2	3	4	g<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **HIGH** association with Programme Outcomes and Programme Specific Outcomes.

Unit - 1 (9 Hrs)

Nutrient requirements of microorganisms - Growth factors - Nutritional types

Unit - 2 (9 Hrs)

 $Culture\ media\ -\ Pure\ culture\ -\ Maintenance\ and\ preservation\ of\ cultures\ -\ Environmental\ factors\ affecting\ growth$

Unit - 3 (9 Hrs)

 $\label{eq:microbial} \begin{tabular}{ll} Microbial\ growth-exponential\ growth-Growth\ curve-Measurement\ of\ microbial\ growth-Batch\ and\ Continuous\ culture-Synchronous\ growth \end{tabular}$

Unit - 4 (9 Hrs)

Sporulation - Bacterial reproduction - Motility of bacteria - Flagellar and gliding - Chemo-, photo-, Aero-, Magneto- taxis

Unit – 5 (9 Hrs)

Uptake of nutrients – Simple, Passive, Facilitated diffusion, Active transport, Group translocation

Text Book

• Schlegal, H.G., 1993. General Microbiology, (7th Edition), Press Syndicate of the University of Cambridge.

Reference Books

- Caldwell, D.R., 1995. Microbial Physiology & Metabolism, Wm.C. Brown Communications, Inc. USA.
- Dawes, I. W. and Sutherland L.W. I992. Microbial Physiology, (2nd Edition), Oxford Blackwell Scientific Publications.

YEAR – I	MICROBIAL METABOLISM	19MB204
SEMESTER - II	(For the students who are admitted in the year	HRS/WK - 3
CORE - 4	2019 – 2020 and onwards)	CREDITS - 3

Objective: To make the students understand the basic principles of Microbial Physiology

Course Outcomes:

Upon successful completion of the course, the student: **CO1:** will be able to appreciate the concept of energetics **CO2:** will be able to explain anaerobic energy production **CO3:** will be able to explain aerobic energy production **CO4:** will be able to describe respiration without oxygen **CO5:** will be able to elaborate on bacterial photosynthesis

SEMESTE		COURSE CODE:					RSE TI	TLE:	HOUR	CREDIT
R:	19MB204					MICROBIAL		S:	S:	
II	191/1118/204					METABOLISM		3	3	
							GRAN	IME		
		PRO	PROGRAMME SPECIFIC							
COURSE		OUTC	COME	S (PO))	OUTCOMES			MEAN SCODE OF	
OUTCOME	, ,						(PSO)		MEAN SCORE OF	
S	PO	PO	PO	PO	PO	PSO	PSO	PSO	COs	
	1	2	3	4	5	1	2	3		
CO1	3	3	3	2	2	4	4	3	3.00	
CO2	4	4	3	2	3	4	4	3	3.37	
CO3	4	3	3	2	2	4	4	4	3.25	
CO4	3	3	3	2	3	4	4	3	3.12	
CO5	4	4	4	3	3	4	4	4	3.75	
Mean Overall Score								3	.29	

Result: The score of this course is 3.29 (High)

Associati	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
on					
Scale	1	2	3	4	5
Interval	0<=rating<	1.1<=rating<	2.1<=rating<	3.1<=rating<	4.1<=rating<
	=1	=2	=3	=4	=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **HIGH** association with Programme Outcomes and Programme Specific Outcomes.

Unit – 1 (9 Hrs)

Principles of energetics – oxidation-reduction reactions – respiratory chain

Unit – 2 (9 Hrs)

Energy production by anaerobic process (Glycolysis, Pentose phosphate pathway, ED Pathway, Fermentation)

Unit - 3 (9 Hrs)

Energy production by aerobic process (TCA, catabolism of lipids, catabolism of proteins)

Unit - 4 (9 Hrs)

Energy production by aerobic process (respiration without oxygen, heterotrophic CO₂ fixation, glyoxylate cycle)

Unit - 5 (9 Hrs)

Energy production by photosynthesis (cyclic, non-cyclic), Mechanism of ATP synthesis - Bioluminescence

Text Book

• Schlegal, H.G., 1993. General Microbiology, (7th Edition), Press Syndicate of the University of Cambridge.

Reference Books

- Moat, A.G. and J. W. Foster, 1995. Microbial Physiology, (3rd Ed.). Wiley LISS, A John Wiley & sons. Inc. Publications,.
- Dawes, I. W. and Sutherland L.W. I992. Microbial Physiology, (2nd Edition), Oxford Blackwell Scientific Publications.

I B.Sc. Microbiology
SEMESTER – I & II
CORE PRACTICAL.

1

BASIC TECHNIQUES IN MICROBIOLOGY

(For the students who are admitted in the year 2019 - 2020 and onwards)

21MBP201 HRS/WK - 4 CREDITS -3

Objective:

To enable the students, learn the basic procedures in microbiology

LIST OF EXPERIMENTS

Microscopy

- 1. Gram staining gram positive cocci
- 2. Gram staining gram negative bacilli
- 3. Spore staining
- 4. Acid fast staining
- 5. Motility hanging drop method

Biochemical tests

- 6. Catalase test
- 7. Oxidase test
- 8. Indole test
- 9. Methyl red test
- 10. Voges Proskauer test
- 11. Citrate utilization test
- 12. Triple sugar iron agar test
- 13. Urease test

Pure culture technique

- 14. Media preparation
- 15. Pour plate method
- 16. Spread plate method
- 17. Quadrant streaking

LIST OF SPOTTERS

- 1. Inoculation loop
- 2. Inoculation needle
- 3. L rod
- 4. Robertson cooked meat medium
- 5. MacConkey agar
- 6. EMB agar
- 7. Na slant with liquid paraffin
- 8. Na stab with liquid paraffin
- 9. Dark field microscopy
- 10. Stage micrometer
- 11. Ocular micrometer
- 12. Chlamydomonas
- 13. Spirochetes
- 14. Laminar air flow chamber
- 15. Incubator
- 16. Autoclave
- 17. Hot air oven
- 18. Inoculation hood
- 19. Colorimeter
- 20.pH meter

- 21. Anaerobic jar
- 22. Volvox
- 23. Gram positive cocci
- 24. Gram negative bacilli
- 25. Spore staining
- 26. Acid fast bacilli
- 27. Indole test
- 28. Methyl red test
- 29. Voges Proskauer test
- 30. Citrate utilization test
- 31. Triple sugar iron agar test
- 32. Urease test
- 33. Na slant with Pseudomonas
- 34. Membrane filter
- 35. Meta chromatic granules

II B.Sc. Biochemistry
SEMESTER - III
ALLIED THEORY

ALLIED MICROBIOLOGY

AMBC302
HRS/WK - 5
CREDIT - 4

Objective: To make the students to understand the basic principles of microbiology.

Course outcomes:

Upon successful completion of the course, the student:

CO 1: will be able to appreciate the discoveries in Microbiology

CO 2: will be able to apply the principles of various microscopes

CO 3: will be able to explain different methods of sterilization

CO 4: will be able to apply the concept of microbial growth

CO 5: will be able to elaborate on the important groups of microorganisms and their role

Unit – 1 (15 Hrs)

Introduction - History and scope of Microbiology - Shape and Size of bacterial cells - Structure of bacterial cell -Structure and functions of cell organelles (Cell wall, structures found outside the cell wall and within the cell wall) - Structure of Endospore

Unit – 2 (15 Hrs)

Microscopy - Simple, Compound, Dark field, Phase contrast, Fluorescent, Electron Microscopes - Staining — Classification Microorganisms - Haeckel's, Whitaker's - Prokaryotes and eukaryotes - Taxonomical ranks - Binomial Nomenclature - Characteristics used in Taxonomy

Unit – 3 (15 Hrs)

Sterilization - Physical agents - Moist heat, Dry heat, Radiation, Filtration - Chemical agents - Phenols and phenolic compounds, Alcohols, Gaseous agents - Antibiotics - Classification, Mode of action - Antifungal and antiviral agents - examples

Unit – 4 (15

Hrs)

Motility of bacteria - Nutrient requirements of microorganisms - Growth factors - Nutritional types - Culture media - Pure culture - Microbial growth - Growth curve - Measurement of microbial growth - Continuous culture - Environmental factors affecting growth - Bacterial reproduction

Unit - 5 (15

Hrs)

Brief description of important groups of bacteria - Archaeobacteria, Spirochetes, Mycoplasma, Actinomycetes, Photosynthetic bacteria, Cyanobacteria, Methanogenic bacteria, Sulfate utilizing bacteria - General characteristics of Algae, Fungi, Protozoa and viruses - Human diseases and the pathogen involved – Role of microorganisms in the environment

Text Books

- Microbiology. 1993 (Fifth edition). Michael J. Pelzar.. Jr., E.C.S. Chan, Noel R. Krieg. Tata McCraw Hill., New Delhi.
- Microbiology. 2003(5th Edition). Prescott, L. M., J. P. Harely and D. A. Klain

McGraw Hill, New York.

Reference Books

- Microbiology. 1992. (5th edition). Roger Y. Stanier, John L. Ingraham, Mark L. Wheelis, Page R. Painter. Macmillan.
- Principles of Microbiology. 1997(2nd Edition). Atlas R. A.. Iowa, Wm. C. Brown Publishers.
- Foundations in Microbiology. 1999. (3rd Edition). Talaro K. P. and A. Talaro. WCB McGraw Hill

II B.Sc. Biochemistry SEMESTER – III ALLIED PRACTICAL

ALLIED MICROBIOLOGY PRACTICAL

AMBCP301 HRS/WK - 3 CREDIT - 2

Objective: To enable the students learn the basic staining procedures in Microbiology

Microscopy

- 1. Simple staining
- 2. Gram staining Gram positive cocci
- 3. Gram staining Gram negative bacilli
- 4. Acid-fast staining
- 5. Spore staining
- 6. Capsule staining
- 7. Motility Hanging drop method
- 8. Observation of Fungi (*Penicillium, Aspergillus, Mucor, Rhizopus*) LPCB mount, Algae (*Chlorella, Spirogyra*) and Protozoa (*Amoeba, Paramecium*), Yeast (*Saccharomyces cerevisiae*) Gram staining
- 9. Media preparation and culture technique (Demonstration only)

LIST OF SPOTTERS:

- 1. Inoculation loop
- 2. Inoculation needle
- 3. Anaerobic jar
- 4. Hot air oven
- 5. Autoclave
- 6. Laminar air flow
- 7. Incubator
- 8. MacConkey Agar
- 9. TCBS Plate
- 10. EMB Agar
- 11. Spirochetes
- 12. Eyepiece
- 13. Objective lens
- 14. Membrane filter
- 15. Acid Fast Bacilli
- 16. Gram positive cocci
- 17. Gram negative rods
- 18. Gram positive yeast
- 19. Spore staining
- 20. Aspergillus
- 21. Dark field microscopy
- 22. NA slant with liquid paraffin
- 23. Water bath
- 24. L rod
- 25. pH meter
- 26. Crystal violet
- 27. Chlamydomonas
- 28. Mushroom
- 29. Immersion oil
- 30. Centrifuge

YEAR – II
SEMESTER - III
CORE – V

JAVA PROGRAMMING For the students admitted from the year 2019

19CS305	
HRS/WK-4	
CREDIT -3	

Objective:

To understand the basic concepts of JAVA language in internet programming.

COURSE OUTCOMES:

CO1: Understanding the principles and practice of object-oriented concepts and basic Java programs.

CO2: Knowledge of creating and using of Packages, Multithreading, Exception Handling

CO3: Design and implement Applet programming and AWT

CO4: Acquire knowledge of JDBC programming techniques in Java.

CO5: Learn to apply networking and RMI concepts through Java program.

Relationship Matrix Course Outcomes, Programme Outcomes and Programme Specific Outcomes

SEMESTER III	COURSE CODE:19CS305					COURSE TITLE: JAVA PROGRAMMING				HOURS: 4	CREDITS: 3		
COURSE OUTCOMES	PROGRAMME OUTCOMES(PO)					PROGRAMME SPECIFIC OUTCOMES(PSO)					MEAN SCORI	E OF CO'S	
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5			
CO1	2	3	3	4	4	4	4	4	4	3	3.5		
CO2	3	4	3	4	3	4	4	3	3	4	3.5		
CO3	3	4	3	3	4	4	4	3	4	4	3.6		
CO4	3	4	3	3	3	4	4	3	4	4	3.5		
CO5	4	4	3	3	3	4	4	3	4	4	3.6		
Mean Overall Score								3.5					

Result: The Score of this Course is 3.5(High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

UNIT –I [10 hrs]

Fundamentals of Java Language: Introduction to Java – Features of Java – Data Types – Arrays - Control Statements- Classes – Objects—Overloading method.

UNIT-II [10 hrs]

Packages, Interfaces and Exception Handling: Packages – Importing Packages – Interfaces – Exception Handling.

UNIT-III [10 hrs]

Thread: Life Cycle of Thread – Multithreading

Applets :Applet life cycle – creating simple applets- Loading and displaying images on appletsworking with graphics

UNIT-IV: [15 hrs]

AWT: AWT controls – windows Fundamentals - layout managers

JDBC: JDBC Architecture – Connecting to a Database (MS Access) – SQL commands-select, insert, delete, update.

UNIT-V: [15 hrs]

NETWORKING: Networking Basics-URL- Inet Address – TCP/IP Sockets .

RMI:Introduction to RMI-RMI architecture - Example using RMI.

Text Books:

- 1. The Complete Reference, H. Schild, Tata McGraw-Hill publication, Fifth Edition, Jul 2017.
- 2. JAVA: How to program, Paul J. Deitel, Harvey Deitel, Prentice Hall publication, tenth edition, 2014.
- 3. Core Java, Volume II--Advanced Features, Cray S. Horstman, Prentice Hall publication 2019.

Reference Books:

- 1. The Java Programme Language ,Wesley, K. Arnold and J. Gosling, Addison Wesley publications,2013
- 2. "Guide to Java Programming", Peter Norton & William Stack, Techmedia Publications, New Delhi, First Edition,1997.

YEAR – II		19CSP303
SEMESTER-III	PRACTICAL - JAVA PROGRAMMING	HRS/WK-3
Practical - III	For the students admitted from the year 2019	CREDIT – 2

Objective:

To enable the students to learn the basic programs of JAVA and to make students to acquire the skill in JAVA programming.

COURSE OUTCOMES:

CO1: To generate ability to Create simple packages.

CO2: Demonstrate the behavior of Multiple Inheritance.

CO3: Construct the program of Multithreading and Exception handling in Java.

CO4: Implement the GUI techniques (Applet and AWT).

CO5:Creating JDBC methods to establish connection with database and simple Networking && Java Bean programs.

Relationship Matrix Course Outcomes, Programme Outcomes and Programme Specific Outcomes

SEMESTER III	COURSE CODE: 19CSP303					COURSE TITLE: PRACTICAL- JAVA PROGRAMMING					HOURS: 3	CREDITS: 2
COURSE OUTCOMES	` 1						RAMME	SPECIFI	MEAN SCORE	OF CO'S		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		
CO1	4	3	2	3	4	4	4	3	3	3	3.3	
CO2	4	4	2	3	4	1	4	5	3	4	3.4	
CO3	4	3	2	4	4	2	4	2	4	4	3.3	
CO4	4	2	2	2	4	2	4	4	4	4	3.2	<u> </u>
CO5	4	4	2	3	4	2	4	3	3	3	3.2	2
Mean Overall Score									3.3	3		

Result: The Score of this Course is 3.3(High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

PRACTICAL - JAVA PROGRAMMING

- 1. Finding area and Perimeter of a circle. Use Buffered Reader class.
- 2. Implementing and importing packages.
- 3. Implementing Interfaces-Arithmetic Manipulations
- 4. Exception Handling
- 5. Multithreading
- 6. Loading image onto applet
- 7. Implement an application for Arithmetic operation using AWT.
- 8. Create a database for storing and manipulating student mark list using AWT.
- 9. Write a program to send in two values to the server program and get back the result calculated using RMI
- 10. Incorporating circle symbol onto Bean box.

III B.Sc, (CS)
SEM – VI
Elective- IV Option(II)

BIG DATA ANALYTICS For the students admitted in the year 2019

ECS66B
HRS/WK- 5
CREDIT - 4

Objectives:

To understand the fundamentals of big data analytics and the methodologies used in storing, manipulating and analyze large volumes of unstructured data.

COURSE OUTCOMES:

CO1: Ability to acquire knowledge on the basics of Big Data.

CO2: Knowing the role and use of virtualization in big data.

CO3: Ability to have a clear idea on hadoop tools and techniques used in big data.

CO4: Ability to become a Big Data Analytics.

CO5: Ability to appreciate the Big Data Storage concepts and technologies

Relationship Matrix Course Outcomes, Programme Outcomes and Programme Specific Outcomes

SEMESTER		COUR	SE CODE	: ECS66B		COUR	SE TITLE	: BIG DA	TA ANAI	YTICS	HOURS: 5	CREDITS:
VI												4
COURSE OUTCOMES	P	ROGRAN	MME OUT	COMES(PO)	PROGRAMME SPECIFIC OUTCOMES(PSO)						CORE OF O'S
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		3.9
CO1	4	4	4	3	4	4	4	4	3	5	1	3.9
CO2	3	4	4	3	4	4	4	4	4	5		3.9
CO3	4	4	4	4	4	4	3	4	4	4		3.9
CO4	4	4	3	3	5	3	4	3	3	4		3.6
CO5	4	3	4	4	5	4	4	4	4	5		4.1
	Mean Overall Score											3.8

Result: The Score of this Course is 3.8(High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

UNIT-I [15 HRS]

Introduction To Big Data Analytics: Big Data – History of Big data – Types of Big data – Structured, Unstructured Data and Semi structured – Characteristics of Big Data – Importance of Big data.

UNIT-II [15 HRS]

Big data analytics: Activities performed in Big Data – Classification of analytics – Challenges of Big data analytics- Terminologies used in Big Data Environments – Analytics tools.

UNIT-III [15 HRS]

Hadoop – Hadoop Overview - Hadoop architectures – Working of Hadoop – Advantage of Hadoop - Key aspects and Components of Hadoop – Limitation of Hadoop.

UNIT-IV [15 HRS]

MapReduce Fundamentals: MapReduce task - Text Analytics and Big Data-Customized Approaches for Analysis of Big Data

UNIT-V [15 HRS]

Integrating Data Sources-Real-Time Data Streams and Complex Event Processing, Operationalizing Big Data.

Text Book:

1. Judith Hurwitz, Alan Nugent, Fern Halper, Marcia Kaufman. "Big Data For Dummies", Wiley India, New Delhi., 2013

Reference Books:

- 1. Paul Zikopoulos, Dirk deRoos, Krishnan Parasuraman, Thomas Deutsch, James Giles, David Corrigan.. Harness the Power of Big Data TheIBM Big Data Platform, Tata McGraw Hill Publications, New Delhi.2012
- 2. Michael Minelli (Author), Michele Chambers (Author), AmbigaDhiraj (Author).. Big Data, Big Analytics: Emerging Business Intelligence and Analytic Trends for Today's Businesses, Wiley Publications, New Delhi, 2013
- 3. Zikopoulos, Paul, Chris Eaton. Understanding Big Data: Analytics for Enterprise Class Hadoop and Streaming Data, Tata McGraw Hill Publications, New Delhi, 2011.

III B.Sc(CS)	PYTHON PROGRAMMING	19SCS51
SEMESTER – V	(Skill Enhancement Course)	HRS/WK-2
IV - SEC – PRACTICAL	For the students admitted from the year 2020	CREDIT - 2

Objective:

This course introduces students to learn fundamentals of Python Programming and to get employed in various MNC.

COURSE OUTCOME:

CO1: To write, test, and debug simple Python programs.

CO2: To implement Python programs with conditionals and loops

CO3: Represent compound data using Python lists, tuples, dictionaries.

CO4: To learn database connectivity in python.

CO5: Students can understand Python and apply to get Employability skills.

Relationship Matrix Course Outcomes, Programme Outcomes and Programme Specific Outcomes

SEMESTER V	COURSE CODE:19SCS51 COURSE TITLE: Practical- Python Programming						HOURS: 2	CREDITS: 2					
COURSE OUTCOMES		GRAMN	ME OU	ГСОМЕ	S(PO)	PROGI	RAMME	SPECIFI	MEAN SCORE OF CO'S				
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5			
CO1	3	4	3	3	3	4	4	3	4	3	3.4		
CO2	4	4	3	4	3	4	3	4	4	3	3.0	6	
CO3	4	4	3	3	3	3	4	3	4	4	3.5	5	
CO4	3	4	3	3	3	3	3	4	4	4	3.4		
CO5	4	4	3	3	3	4	4	3	3	4	3.5		
				Me	ean Ov	erall Scor	re				3.5	5	

Result: The Score of this Course is 3.5(High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

- 1. Introduction and installation of python.
- 2. Write a program to demonstrate different data types in Python.
- 3. Write a program to perform different Arithmetic Operations in Python.
- 4. Write a simple program to perform Looping in Python.
- 5. Write a program to demonstrate working with arrays (numpy)
- 6. Write a program to demonstrate working with lists in python.
- 7. Write a program to demonstrate working with tuples in python.
- 8. Write a program to demonstrate working with dictionaries in python.
- 9. Write a program using split operator
- 10. Create a database for student mark sheet preparation.

Text Books:

1. Jeeva Jose and P. SojanLal, "Introduction to Computing and Problem Solving with PYTHON", Khanna

Book Publishing Co. (P) Ltd., 2016.

Reference Books:

- 1. Wesley J. Chun, "Core Python Programming", Second Edition, Prentice Hall Publication, 2006.
- 2. Micheal Dawson, "Python Programming for Absolute Beginners", Third Edition, Course Technology, 2010.

III B.Sc(CS)	GIMP	19SCS62	
SEMESTER – VI	(Skill Enhancement Course)	HRS/WK-2	
SEC – PRACTICAL	For the students admitted from the year 2020	CREDIT - 2	

Objectives:

This skill course introduces the fundamentals of Open-Source graphics tool GIMP and gets practically exposed.

COURSE OUTCOME:

CO1: Acquire Fundamental knowledge on GIMP.

CO2: Learn the Basics of GIMP Interface and its practical impact.

CO3: Solve the effects related to effects applied on GIMP.

CO4: Develop an idea about new techniques applied in GIMP.

CO5: Create Applications like Banner, Business Card used for Employability Training.

Relationship Matrix Course Outcomes, Programme Outcomes and Programme Specific Outcomes

SEMESTER V	ER COURSE CODE:19SCS62 COURSE TITLE: Practical- GIMP						HOURS: 2	CREDITS: 2				
COURSE OUTCOMES		RAMMI	E OUT	COMES		PROGRA	MME SI	PECIFIC	MEAN SCORE O	F CO'S		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		
CO1	3	4	3	3	3	4	4	3	4	3	3	.4
CO2	4	4	3	4	3	4	3	4	4	3	3	.6
CO3	4	4	3	3	3	3	4	3	4	4	3	.5
CO4	3	4	3	3	3	3	3	4	4	4	3.4	
CO5	4	4	3	3	3	4	4	3	3	4	3	.5
				Mea	n Over	all Score					3	.5

Result: The Score of this Course is 3.5(High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

- 1. Introduction and installation of GIMP
- 2. Demonstrate using Tool-box
- 3. The menus and windows
- 4. Layer and Layer masking
- 5. Performing Text Effects
- 6. Modify Color effects in images
- 7. Drawing Shapes in GIMP
- 8. Cutting Images and removing background
- 9. Design a Business Card
- 10. Develop a Banner for College

TEXT BOOKS:

1. Beginning Photo Retouching & Restoration Using GIMP, Phillip Whitt,ISBN-13: 978-1-484204-04-7,Paperback (308pp.), EPUB, MOBI, DF,Publisher/Date:

Apress/2014, Website: http://www.apress.com/9781484204047

2. The Book of GIMP, Olivier Lecarme, KarineDelvare,ISBN-13: 978-1-59327-383-5, Paperback, 67 6pp,No Starch Press/2013- http://nostarch.com/gimp.

REFERENCE BOOKS

- 1. Jan Smith, Roman Joost, "GIMP for Absolute Beginners", Apress Publications, 2012
- 2. Fazreil Amreen, "Instant GIMP Starter", Packet Publishing., 2013.
- 3. Jason van Gumster, Robert Shimonski, "GIMP Bible", Wiley Publishing, Inc, 2010.

II-MSC (CS)
SEMESTER – II
CORE-7

WIRELESS COMMUNICATION TECHNOLOGIES

19PCS808
HRS/WK – 4
CREDIT – 3

Objectives:

- 1. To know about the various frequency Spectrum and Signals for wireless communication
- 2. To Know the concept of Infrared, Cordless and WLL
- 3. To understand the concepts wireless communication technologies such as Wireless LAN, WiMAX, Bluetooth and Wi-Fi

COURSE OUTCOMES (COs):

After learning this course, the students should be able to expose

CO1: Ability to know the Purpose of Protocols and the TCP/IP Suite

CO2: Ability to understand the Principles of Signal Encoding Techniques

CO3: Ability to acquire knowledge about the wireless networking

CO4: Ability to understand the cordless systems and wireless local loop

CO5: Ability to learn the IEEE 802.11 Wireless LAN Standard

Relationship Matrix Course Outcome, Programme Outcome and Programme Specific Outcome

SEMESTER II	ER COURSE CODE: 19PCS808 COURSE TITLE: WIRELESS COMMUNICATION TECHNOLOGIES						HOURS:	CREDITS:					
COURSE OUTCOME	PR	OGRAM	IME OU	TCOME	C(PO)	PROGRAMME SPECIFIC OUTCOME(PSO)					MEAN SCORE OF CO		
	PO	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	2.4		
CO1	3	3	3	4	4	4	4	3	4	4	3.6		
CO2	3	4	3	4	4	4	4	3	3	4	3.6		
CO3	4	3	4	4	3	3	4	3	3	4	3.5		
CO4	3	4	3	4	3	4	4	3	4	4	3.6		
CO5	3	4	3	4	3	3	3	4	3	4	3.4		
	Mean Overall Score										3.5		

Result: The Score of this Course is 3.5(High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

UNIT -I [12 Hrs]

INTRODUCTION TO PROTOCOLS AND THE TCP/IP SUITE-: The Need for a Protocol

Architecture, The TCP/IP Protocol Architecture, The OSI Model, Inter-networking. Wireless Communication Technology- Antennas and Propagation- Antennas, Propagation Modes, Line-of-Sight Transmission, Fading in the Mobile Environment.

UNIT -II [13Hrs]

SIGNAL ENCODING TECHNIQUES: Signal Encoding Criteria, Digital Data- Analog Signals, Analog Data-Analog Signals, Analog Data-Digital Signals, The Concept of Spread Spectrum- Frequency Hopping Spread Spectrum, Direct Sequence Spread Spectrum, Code Division Multiple Access, Generation of Spreading Sequences.

UNIT -III [13Hrs]

WIRELESS NETWORKING: Satellite Communications- Satellite Parameters and Configurations, Capacity Allocation-Frequency Division, Capacity Allocation-Time Division Cellular Wireless Networks- Principles of Cellular Networks, First-Generation Analog, Second-Generation - TDMA, CDMA, Third-Generation Systems.

UNIT -IV [12 Hrs]

CORDLESS SYSTEMS AND WIRELESS LOCAL LOOP: Cordless Systems, Wireless Local Loop - Wireless LANs- Wireless LAN Technology – Overview, Infrared LANs, Spread Spectrum LANs, Narrowband Microwave LANs.

UNIT -V [10 Hrs]

IEEE 802.11 WIRELESS LAN STANDARD: IEEE 802 Protocol Architecture, IEEE 802.11

Architecture and Services, IEEE 802.11 Medium Access Control. Introduction to Wi-Fi and Bluetooth Technologies (Only Overview).

TEXT BOOK:

1. "Wireless Communications and Networks, William Stallings", Pearson Prentice Hall (2nd edition), 2005. (Chapters 4, 5, 6, 7, 9, 10,11, 13, 14, 15.1)

REFERENCE BOOKS:

- 1. "Wireless Communication Technology", Steve Rackley-Elsevier, 2007
- 2. "Adhoc Wireless Networks- Architechture and Protocols", C. Siva Ram Murthy and B.S.Manoj-Pearson Prentice Hall, 2004

I M.Sc(CS)		19PCS809
SEMESTER – II	WEB TECHNOLOGY	HRS/WK – 4
CORE – 8		CREDIT – 3

Objectives:

- ❖ To enable the students to learn the principles of Internet programming.
- ❖ To Gain knowledge in Internet basics and XML
- ❖ To Understand Java Script and PHP programming.

COURSE OUTCOMES (COs):

CO1: Understand the basics of internet communications and hardware elements associated with it.

CO2: Learn the fundaments of HTML tags, frames, frameset and tables.

CO3: Acquire knowledge about java script and its controls statements, functions, objects.

CO4: Understand about XML, CSS, XSL, DTD, XSD.

CO5: Create dynamic web applications with PHP scripting.

Relationship Matrix Course Outcome, Programme Outcomes and Programme Specific Outcome

SEMESTER II	CODI	COU E:19PC	JRSE S809				COURSE TITLE: WEB TECHNOLOGY			HOURS: CREDITS 3			
COURSE OUTCOME	PRO	GRAM	ME OU	TCOM	E(PO)	PROGRAMME SPECIFIC OUTCOME(PSO)					MEAN SCORE OF CO		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5			
CO1	3	3	3	4	3	4	3	3	4	4	3.4		
CO2	4	4	4	4	4	3	3	3	3	4	3.6		
CO3	4	4	3	3	4	3	4	3	4	4	3.6		
CO4	4	4	3	3	4	4	3	3	4	3	3.5		
CO5	4	3	4	3	3	4	3	3	4	4	3.5		
				Mean	Overal	l Score					3	3.5	

Result: The Score of this Course is 3.5(High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

UNIT – I [12 Hrs]

BASICS OF INTERNET COMMUNICATION: Hardware elements associated with internet

- Internet Services - Internet Protocols - TCP/IP, UDP, HTTP - Other Protocols - Telnet - Gopher- Mail and its types- FTP - Remote access - Web Indices - Search Engines.

UNIT – II [12 Hrs]

INTRODUCTION TO HTML: Tags and Documents - Link documents using Anchor Tags - Images and Pictures - Tables - HTML Forms - Frames - Framesets.

UNIT – III [12 Hrs]

INTRODUCTION TO SCRIPTING: Java Script – Data types – Operators – Variables – Conditional Statements – Functions – Objects – Document object – Window Object – Event Handling.

UNIT – IV [11 Hrs]

INTRODUCTION TO XML: Well-formed XML - CSS - XSL - Valid XML - DTD - XSD -

Introduction to DOM and SAX Parsers.

UNIT – V [13 Hrs]

INTRODUCTION TO DYNAMIC WEB APPLICATIONS: Server-Side Scripting basics – Server-Side Scripting Languages – PHP Scripting - General Syntactic Characteristics – Primitives, operations and expressions – Control Statement – Arrays – Functions – Pattern Matching – Form Handling – Files – Cookies – Session Tracking – Database access with PHP and MYSQL.

TEXT BOOKS:

- 1. "Internet and WWW How to program?", Deitel & Deitel Pearson Education, 2005 (Units I, II and III)
- 2. "Programming the WWW", Robert W Sebesta Pearson Education. 2006 (Unit V)
- 3. "Beginning XML", David Hunter Et al Wrox Publications 2000. (Unit IV)

REFERENCE BOOKS:

- 1. "Internet Systems Handbook", Daniel C. Lynch, Marshall T. Rose Addison Wesley 1993.
- 2. "10 Minute Guide to the Internet", Peter Kent Prentice Hall of India, 1996.
- 3. "Teach Yourself XML in 21 days", Scott Mitchell and James Atkinson - Sams Publishing, 1999.
- 4. "Internetworking with TCP/IP", Douglas E.Comer, David L.Stevens(Second Edition)-2007.

I M.Sc(CS)		19PCSP24
SEMESTER – II	WEB TECHNOLOGY LAB	HRS/WK – 5
CORE PRACTICAL – IV	WED TECHNOLOGY LAD	CREDIT -3

Objective:

To develop applications using HTML, XML and PHP.

COURSE OUTCOMES (COs):

CO1: Create a HTML table with rows and columns and split them using Row span and Col span.

CO2: Understand and create web pages using text links and align them.

CO3: Acquire knowledge to create XML documents, write a XSL style sheet and validate them using DTD or XSD.

CO4: Understand and write PHP programs for storage and retrieval of data from mysql.

CO5: Create java script programs and illustrate its various concepts.

Relationship Matrix Course Outcome, Programme Outcome and Programme Specific Outcome

SEMESTER II	COURSE CODE:19PCSP24 COURSE TITLE: WEB TECHNOLOGY LA									HOURS: 5	CREDITS:	
COURSE OUTCOME	PRO	PROGRAMME OUTCOME(PO)					RAMME	SPECIFIC	OUTCOM	MEAN SCORE	E OF CO	
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		
CO1	3	4	3	4	3	4	4	4	4	3	3.6	
CO2	4	4	3	4	3	4	3	4	3	3	3.5	
CO3	4	3	3	4	4	4	4	3	3	4	3.6	
CO4	4	3	4	3	3	3	4	3	4	4	3.5	
CO5	3	4	4	3	4	4	3	3	4	4	3.6	
	Mean Overall Score										3.6	

Result: The Score of this Course is 3.6(High)

Associat	ion 1 <i>%</i>	-20%	21%-40%	41%-60%	61% -80%	81%-100%
Scale	!	1	2	3	4	5
Interv	al 0<=ra	ting<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Ratin	g Ver	y Poor	Poor	Moderate	High	Very High

WEB TECHNOLOGY LAB

- 1. Create a HTML table with rows and columns and split them using Row span and Col span.
- 2. Create a web page in the format of front page of a news paper using Text links. Align the text with colors.
- 3. Write a HTML program for new email account registration. Validate the input using Java Script.
- 4. Write an XML document to display your bio-data. Write an XSL style sheet and attach that to the XML document. Validate the document using DTD or XSD.
- 5. Write a server-side PHP program that displays marks, total, grade of a student in tabular format by accepting user inputs for name, number and marks from a HTML form.
- 6. Write a PHP program to access the data stored in a mysql table.
- 7. Develop a simple Web page using Html and JavaScript about your college.
- 8. Write a JavaScript Program to prepare a salary slip for an Employee
- 9. Write a JavaScript Program to illustrate the use of String Functions
- 10. Write a JavaScript Program to illustrate the use of Mathematical Functions and Date Functions.

WEB REFERENCES:

1. https://www.w3schools.com/html/html examples https://beginnersbook.com/2018/10/xml-example

II M.Sc (C.S)		19EPCS35A
SEMESTER -III	CYBER FORENSICS	HRS/WK-4
Elective – 4B		CREDIT-3

Objectives:

- ❖ To Explain the responsibilities and liabilities of a computer forensic investigator
- To collect digital evidences from a crime scene without damaging it or risking it becoming inadmissible in a court of law

COURSE OUTCOMES (COs):

After learning this course, the students should be able to expose

CO1: Ability to gain knowledge on basic Forensics, its tasks, cybercrime laws

CO2: Ability to restrict fromcrimes, threat and fraud by learning social ethics

CO3: Ability to learn about cyber criminals, crime fighters and understanding investigators

CO4: Ability to understand local, state, national, international laws and their procedures

CO5: Ability to understand how to preserve and recover digital evidence.

Relationship Matrix Course Outcome, Programme Outcome and Programme Specific Outcome

SEMESTER		COUR	SE CODE	: 19EPCS	35A	COU	RSE TIT	LE:CYBE	R FOREN	ISICS	HOURS:	CREDITS:
Ш											4	3
COURSE OUTCOME	1	PROGRAMME OUTCOME(PO) PROGRAMME OUTCOME(PO)										SCORE OF CO
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		
CO1	4	4	4	4	4	4	5	3	2	5]	3.9
CO2	4	4	4	4	4	4	5	4	3	5		4.1
CO3	4	4	4	4	4	4	5	4	3	5		4.1
CO4	4	4	4	4	4	4	5	3	3	5		4.0
CO5	4	4	4	4	4	4	5	3	2	5		3.9
	Mean Overall Score											4.0
				wiean	Overall S	core						

Result: The Score of this Course is 4.0(High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

UNIT-1 [Hrs 11]

INTRODUCTION TO COMPUTER FORENSICS: Computer forensics definitions - Computers' roles in crimes- Computer forensics tasks-Prepare for an investigation- Collect evidence -Preserve evidence -Recover evidence- Document evidence Challenges associated with making "cybercrime" laws-Jurisdictional issues.

UNIT-1I [Hrs 12]

COMPUTER CRIMES: Crimes -Violent crimes where computers are used include terrorism-assault threat- stalking- child pornography -Nonviolent crimes where computers are used include trespass- theft- fraud- vandalism -Where evidence often resides for different types of crimes -Address books- chat logs- e-mail- images- movies- Internet browser history- etc.

UNIT-1II [Hrs 12]

COMPUTER CRIMINALS: Using evidence to create a crime timeline - Modify Access Create (MAC) dates associated with files- Problems with using these (they don't change in a logical fashion in some cases)-Criminals and crime fighters- Understanding "cyber criminals" and their victims -Understanding "cyber investigators.

UNIT-1V [Hrs 13]

BUILDING A CYBERCRIME CASE: Bodies of law- Constitutional law- Criminal law- Civil law- Administrative regulations- Levels of law- Local laws- State laws- Federal laws- International laws- Levels of culpability- Intent –Knowledge- Recklessness- Negligence- Level and burden of proof- Criminal versus civil cases- Vicarious liability- Laws related to computers –CFAA- DMCA- CAN Spam- etc.

UNIT-V [Hrs 12]

PRESERVING AND RECOVERING DIGITAL EVIDENCE: Disk imaging -Creating amessage digest or hash code for a disk -Where data hides; deleted and erased data -File systems

-Files-Modify Access Create (MAC) dates to establish time line -File headers - info about file type.

TEXT BOOK:

1. "Guide to Computer Forensics and Investigations", Bill Nelson, Amelia Phillips, Christopher Steuart, - 4th edition, Course Technology- Cengage Learning, 2010

REFERENCES BOOK:

1. "Computer Crime Scene Investigation", John R. Vacca, Computer Forensics-2nd Edition, Charles River Media, 2005

I M.Sc (C.S)		19EPCS35B
SEMESTER -III	E -BUSINESS	HRS/WK-4
ELECTIVE – 4C		CREDIT-3

Objectives:

- ❖ This course introduces students to various aspects and models for E-Business.
- ❖ At the end of the course, students should have an understanding of the impacts which E-Business is having on society, markets and commerce.
- ❖ Students should also become aware of the global nature of E-commerce and how traditional means of doing business will need to change in the electronic age.

COURSE OUTCOMES (COs):

CO1: Essential knowledge on Business Process Model

CO2. Learn the working environment functions for E Market places

CO3. Learn about the E Business Applications of Outsourcing Industry

CO4. Acquired an idea about employment and job Market online different field and Industries

CO5. Understood the challenges and dynamics of each E-Learning process Education and Industries to help better manage operations

Relationship Matrix Course Outcome, Programme Outcome and Programme Specific Outcome

SEMESTER III	CODI	COU E:19EP				COURSE TITLE: E-BUSINESS					HOURS:	CREDITS:		
COURSE OUTCOME	PRO	GRAM	ME OU	JTCOM	E(PO)	PROGRAMME SPECIFIC OUTCOME(PSO)					MEAN SCORE OF CO			
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5				
CO1	4	4	5	5	4	4	4	4	3	3	4.0			
CO2	4	4	3	4	4	4	4	3	3	4	3.7			
CO3	4	4	3	3	4	4	4	3	4	4	3.9			
CO4	4	4	3	3	4	4	4	3	4	4	3.7			
CO5	4	3	4	4	3	4	4	3	4	4	3.7			
	Mean Overall Score										3.8			

Result: The Score of this Course is 3.8(High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

UNIT-I [Hrs 12]

INTRODUCTION TO E-BUSINESS AND E-COMMERCE- Define the E-Commerce and E-Business - Define E-Commerce Types of EC transactions - Define E-Business Models - Internet Marketing and E-Tailing - Elements of E-Business Models- Explain the benefits and limitations of E-Commerce.

UNIT-II [Hrs 12]

E-MARKETPLACES- Structures, Mechanisms, Economics, and Impacts- Define E-Marketplace and Describe their Functions- Explain E-Marketplace types and their features - Describe the various types of auctions and list their characteristics - Discuss the benefits, limitations and impacts of auctions - E-Commerce in the wireless environment - Competition in the DE and impact on industry

UNIT-III [Hrs 11]

E-BUSINESS APPLICATIONS- E-Procurement and E-Payment Systems - Integration and E-Business suits - ERP, E-SCM, CRM - E-Procurement definition, processes, methods and benefits - E-Payment - Discuss the categories and users of smart cards - Describe payment methods in B2B EC.

UNIT-IV [Hrs 12]

THE IMPACT OF E-BUSINESS ON DIFFERENT FIELDS AND INDUSTRIES - E-

Tourism - Employment and Job Market Online - Online Real Estate - Online Publishing and E-Books - Banking and Personal Finance Online - On-Demand Delivery Systems and E-Grocers - Online Delivery of Digital Products, Entertainment, and Media

UNIT-V [Hrs 13]

E-LEARNING AND ONLINE EDUCATION - Define electronic learning-Discuss thebenefits and drawbacks of E-Learning.

THE E-LEARNING INDUSTRY- Discuss E-Content development and tools-Describe the major technologies used in E-Learning- Discuss the different approaches for E-Learning Delivery-How E-Learning can be evaluated. Future Trends-e-Government- Definition of E-Governments-Implementation-E-Government Services- Challenges and Opportunities- E-Government Benefit.

TEXT BOOK:

1. "Electronic Commerce: A Managerial Perspective", Turban, E. et al., -Prentice Hall 2008.

REFERENCE BOOKS:

- 1. "Electronic Business and Electronic Commerce Management", Dave Chaffey, 2nd edition, Prentice Hall, 2006
- 2. "E-Learning Tools and Technologies", Horton and Horton-Wiley Publishing, 2003

II M.Sc (CS)		19JPC306
SEMESTER – III	MINI PROJECT	HRS/WK-3
MINI PROJECT		CREDIT – 3

Objective:

The main objective of this Mini project is to expose the students to get a broad idea to develop project.

COURSE OUTCOMES (COs):

CO1: Ability to perform Critical Thinking, Reasoning, and Creative Thinking.

C02: Ability to use the technology

C03: Ability to visualize the problems and Provide Solution

C04: Ability to test technical skills.

C05: Ability to work both independently and in groups on presentations and/or development of Projects.

SEMESTER		COURSE CODE:					COURSE TITLE: MINI PROJECT						HOURS:	CREDITS:			
III]	19JP	C306)										3	3		
COURSE	PROGRAMME OUTCOMES(PO)						PROGRAMME SPECIFIC OUTCOMES(PSO)								COPE OF		
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	PSO8		MEAN SCORE OF CO'S		
CO1	5	4	5	5	4	4	4	4	4	3	4	4	4	4.10			
CO2	5	4	5	5	4	4	4	4	5	3	4	4	4	4	1.20		
CO3	5	5	5	5	5	5	5	4	5	3	4	4	4	4	1.50		
CO4	5	5	5	5	5	5	5	4	5	3	4	4	4	4.50			
CO5	5	5	5	5	5	5	5	4	5	3	4	4	4	4.50			
	Mean Overall Score										4.4						

Result: The Score of this Course is 4.4(High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

FORMAT FOR PREPARING MINI PROJECT REPORT

Arrangement of contents

- 1. Title Page
- 2. Bonafide Certificate
- 3. Acknowledgement
- 4. Table of contents
- 5. Abstract
- 6. Chapters of the Report
- 7. References
- 8. Appendices, if any

Appendices should be named as

APPENDIX- A APPENDIX- B

BINDING SPECIFICATION

- * Report should be found using flexible cover of thick white Art Paper.
- ❖ The Spine for the Bound volume should be of black calico of 2cms width.
- ❖ The Cover should be printed in Block letters.

MARGIN SPECIFICATION

Top : 4 cms Bottom : 3 cms Left : 4.5 cms Top : 2.5 cms

PAGE NUMBERING

All Page numbers should be typed without punctuation on the Bottom-Center Portion of the Page. The Preliminary pages (table of contents and abstract) should be numbered in Lowercase Roman Literals. Papers of main Text, starting with Chapter-1, Should be consecutively numbered using Arabic Numerals.

TITLE PAGE:

TITLE OF THE PROJECT

A project report

Submitted for the partial fulfillment for

the award of degree of

MASTER OF COMPUTER SCIENCE

Ву

STUDENT'S NAME

(Register Number)

Under the Guidance of

GUIDE'S NAME

COLLEGE ADDRESS

Month and year

CERTIFICATE PAGE:

CERTIFICATE

This is to certify that the mini project report entitled

TITLE OF THE PROJECT

being submitted to the St.Joseph's College of Arts and Science (Autonomous),

Affiliated to Annamalai University, Annamalai Nagar.

By

Mr. / Ms. STUDENT'S NAME

For the partial Fulfillment for the award of degree of

MASTER OF COMPUTER SCIENCE

Is a Bonafide record of work carried out by him/her, under my guidance and supervision.

Internal Guide	Head of the Department
Submitted for the viva-voce examination on	
Examiners:	
1	
1.	

2.

III BCA	
SEMESTER - V	PYTHON PROGRAMMING
SEC	

19SCA51
HRS/WK- 2
CREDIT - 2

Unit-I [6 Hrs]

Getting started with IPython-. Using plot command interactively-. Embellishing a plot-Saving plots-Multiple plots-Subplots-Additional features of IPython-Loading Data From Files-Plotting Data-Other Types Of Plots-Plotting Charts.

Unit-I [6 Hrs]

Getting started with Lists-Getting started with for-Getting started with strings-Getting started with files-Parsing data.

Unit-III [6 Hrs]

Getting started with arrays-Accessing parts of arrays-Image manipulation using Arrays-.Basic Matrix Operations-.Advanced Matrix Operations-.Least square fit-Basic datatypes and operators-Sequence datatypes.

Unit-IV [6 Hrs]

Input-output-. Conditional Statements-Loops-Manipulating lists-Manipulating strings-Getting started with tuples-. Dictionaries-Sets in Python.

Unit-V [6 Hrs]

Getting Started with Functions-Advanced Features of Functions-Using Python Modules-Writing Python Scripts-Testing and Debugging-Handling Errors and Exceptions.

TEXT BOOK and VIDEO Tutorial LINK:

- 1. https://python.fossee.in/
 - a. Python Textbook Companion
 - b. https://spoken-tutorial.org/tutorial-search/?search foss=Python&search language=English

REFERENCE BOOK:

1. Martin. C. Brown., Python: The Complete Reference ASIN: 9387572943, Publisher: McGraw Hill Education; Forth edition (20 March 2018), Language: English, Paperback: 720 pages, ISBN-10: 9789387572942, ISBN-13: 978-9387572942

II- B.COM	OFFICE AUTOMATION	19GCM31A
SEMESTER -III	(For the students admitted from the year 2019	HRS/WK – 5
GENERIC	onwards)	CREDIT - 4
ELECTIVE- I (A)		

Objective:

To enable the students to learn the features of MS OFFICE and its applications

Course Outcomes:

At the end of the Course the students should be able to exhibit

CO1: Basics of MS OFFICE.

CO2: Knowledge pertaining to MS WORD.

CO3: Basics knowledge of data handling in Excel.

CO4: Skills using different functions and format in Excel.

CO5: Knowledge pertaining to MS WORD.

Relationship Matrix Course Outcomes, Programme Outcomes and Programme Specific Outcomes.

SEMESTER		COU	RSE C	ODE:		COURSE TITLE: OFFICE					HOURS:	CREDITS:	
V		19	GCM3	1 A		AUTOMATION					5	4	
		PRO	GRAN	IME			PROGR	AMME S					
COURSE		OUT	COME	S(PO)			OUT	OUTCOMES(PSO)			MEAN SO	CORE OF	
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	4	5	4	4	4	4	5	4	5	4	4	.3	
CO2	5	4	4	5	5	4	4	4	4	4	4	.3	
CO3	4	5	5	5	5	5	5	5	5	4	4	.8	
CO4	5	4	4	5	5	5	5	5	5	4	4.7		
CO5	4	5	4	5	5	5 5 5 4					4	.7	
	Mean Overall Score										4	.6	

Result: The Score of this Course is 4.6 (Very High)

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome.

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I:

Introduction to Microsoft Office: Overview of the Office components (Word,Excel,PowerPoint,Access)—Identifying Common Screen Elements – Exiting a Program.

Common Office Tools and Techniques: Switching from one application to another – Sizing and Arranging Windows – Working with Menus – Working with Dialog Boxes – Working with Toolbars. - Using the Clipboard to cut, copy and paste.

Unit II:

Starting Word: Starting a New Document – Opening an Existing File – Saving a Document – Printing a Document – Closing a Document.

Word Basics: -Typing Text - Inserting, Selecting and Deleting Text - Using Undo

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and Redo – Inserting Special Characters or symbols – Formatting Characters (Changing Fonts and Font Sizes, Applying Bold, Italic or Underline, Changing Text Case – Drop Caps) – Margins & Gutters - Working with Bulleted or Numbered Lists – Aligning Text – Borders and Shading - Formatting Paragraphs – Line Spacing

Unit III:

Working with AutoCorrect and AutoFormat: Using Find and Replace – Correcting Spelling and Grammatical Errors – Working with Headers and Footers – Working with Tabs - Working with Tables.

Working with Graphics: Importing Graphics – ClipArt Gallery – Drawing Objects.

Unit IV:

Using Excel: Creating s Simple Spreadsheet – Editing a Spreadsheet – Working with Functions and Formulas – Formatting Worksheets – Creating Charts.

Unit V:

Using PowerPoint: Creating & Viewing Presentations – Editing a Presentation – Working with Presentation Special Effects.

Text Book:

1. Microsoft Office XP fast & easy by Diane Koers, Prentice-Hall of India, New Delhi,2001. 2. "Working in Microsoft Office", by Ron Mansfield, Tata McGraw-Hill Publishing CompanyLimited, New Delhi,1997.

Reference Books:

- 1. "Microsoft Excel 2016 BIBLE" by John Walkenbach, DurgaPrinto Graphics, Delhi
- 2. "Microsoft Office Professional Instant Reference" by Sheila S. Dienes, BPB Publications, New Delhi.
- 3. "Mastering Word 2000" by Ron Mansfield & J.W Olsen, BPB Publications, New Delhi.

QUESTION PAPER PATTERN

Time: 3 Hours

Marks: 75

Part - A = 5x5 = 25 Marks - Five out of Eight - Open Choice.

Part $-B = 5 \times 10 = 50 \text{ Marks} - \text{Five Out of Eight} - \text{Open Choice}$.

II- B.COM	INTERNET TECHNOLOGIES	19GCM31B
SEMESTER- III	(For the students admitted from the year 2019	HRS/WK – 5
GENERIC	onwards)	CREDIT - 4
ELECTIVE- I (B)		

Objective: To give an introduction to Internet, HTML and to learn Java Script and how to add Java Script code to HTML page.

Course Outcomes:

At the end of the Course the students should be able to Exhibit

CO1: Knowledge in Internet Connection Technologies.

CO2: Programming Skills using HTML Tags

CO3: Programming Skills using Style Sheets

CO4: Programming Skills using JavaScript.

CO5: Basics of Internet and E-Commerce.

Relationship Matrix Course Outcomes, Programme Outcomes and Programme Specific Outcomes.

SEMESTER		COU	RSE C	ODE:		COURSE TITLE: INTERNET					HOURS:	CREDITS:	
V		19	GCM3	1B		TECHNOLOGIES					5	4	
		PRC	GRAN	IME			PROGR	AMME S					
COURSE	OUTCOMES(PO)						OU'	COMES	(PSO)		MEAN S	CORE OF	
OUTCOMES	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	4	5	4	4	4	4	3	4	3	3	3	.8	
CO2	4	4	4	4	4	4	4	4	3	3	3	.8	
CO3	4	3	5	4	4	3	3	4	3	3	3	.6	
CO4	4	4	4	3	3	4	4	4	3	3	3.6		
CO5	4	3	4	3	3	3	4	4	4	3	3.5		
	Mean Overall Score										3	5.7	

Result: The Score of this Course is 3.7 (High)

This Course is having **HIGH** association with Programme Outcome and Programme Specific Outcome.

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit-I

Internet Basics: What is Internet?-Origin of Internet-IP address-Domain name-Host Name-DNS-Port Number-WWW-URL-Web server-Web browser-Search Engine-Types of Internet Connections-Hardware Requirements-Internet accounts-Network-Types of Network-Network Topologies.

Unit-II

Introduction to HTML: History of HTML-Structure of HTML-Basic HTML tags-Linking HTML document-Adding images into HTML document-List

Unit-III

HTML and CSS: Tables creation in HTML-Frames in HTML-Cascading Style Sheet (CSS)-Uses of CSS-Types of CSS

Unit-IV:

Java Script: Java Script Syntax-Input and Output in Java Script-Data types- Variables-Arrays-Expressions-Dialog Box-Looping structure.

Unit-V:

Uses of Internet: E-mail-Chat-On line Transaction-credit card transaction-Debit card transaction-Net banking-E-Business-Uses of internet in education-E-Shopping-Web publishing

TEXT BOOKS:

- Ivan Bayross-Web Enabled Commercial Application Development HTML, Java Script, DHTML and PHP-4TH Edition
- 2. H.Schildt Complete Reference-Internet.

REFERENCE BOOK:

1. Thomas.A.Powel., The Complete Reference-HTML & CSS., Fifth Edition., Tata McGraw Hill

QUESTION PAPER PATTERN

Time: 3 Hours

Marks: 75

Part -A = 5x5 = 25 Marks - Five out of Eight - Open Choice. Part $-B = 5 \times 10 = 50$ Marks - Five Out of Eight - Open Choice.



II- B.COM	ENTREPRENEURIAL DEVELOPMENT	19GCM42A
SEMESTER-IV	(For the Students Admitted in the year 2019 onwards)	HRS/WK –5
GENERIC ELECTIVE-		CREDIT - 4
II (A)		

Objective:

To make and create interest among the students to become an Entrepreneur.

Course Outcomes

After completing this course, the student will be able to:

CO1: Understand the basic concepts and theories of entrepreneurship.

CO2: Exemplify knowledge on course contents, curriculum and constraints of EDP.

CO3: Conceive business ideas and convert them into business projects.

CO4: Become familiar with institutions support various forms of assistances and subsidies.

CO5: Learn the MSMEs schemes provided to budding entrepreneurs.

Relationship Matrix Course Outcomes, Programme Outcomes and Programme Specific Outcomes.

SEMESTER							COU	RSE TI	TLE:				
IV	COU	RSE C	ODE:	19GCN	/142A		ENTRE	PRENE	EURIAL	_	HOURS:5	CREDITS:4	
						DEVELOPMENT							
COURSE		PROGRAMME					ROGRA	MME S	SPECIF	IC	•		
OUTCOME		OUT	COME	S(PO)			OUT	COMES	(PSO)		MEAN SCORE OF CO'S		
\mathbf{S}	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5			
CO1	4	5	3	4	3	5	5	4	5	3		4.1	
CO2	3	4	4	4	4	5	3	4	4	4		3.9	
CO3	5	5	4	5	5	4	5	3	5	3		4.4	
CO4	4	4	5	4	5	4	4	4	4	4	4.2		
CO5	3	3	4	5	4	5	4	3	5	3	3.9		
	Mean Overall					all Score						4.1	

Result: The Score of this Course is 4.1 (Very High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome.

UNIT-I Introduction (15 Hrs.)

Entrepreneurship: Meaning- Nature-Importance-Theories- Entrepreneur: Meaning-Definition-Characteristics-Qualities-Types and Roles of an Entrepreneur-Entrepreneur vs.Intrapreneur-Factors Promoting an Entrepreneur - Women Entrepreneur: Concept and Definition - Problems of Women Entrepreneurs - Role of entrepreneurs in India's Economic Development

UNIT-II Entrepreneurship Development Programmes (15 Hrs.)

Meaning-Needs-Objectives —Course Contents and Curriculum-Phases of EDP-Problems and Constraints of EDP- Organisations providing Entrepreneurship Development Programmes.

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UNIT-III New Venture (15 Hrs.)

Meaning – Promoting New Venture – Sources of Business Ideas - Idea Generation Techniques-Project Identification-Project Selection. - Procedures to Start a New Venture- Project : Meaning- Types-formulation of Project report - Project Appraisal-Network Analysis.

UNIT-IV Institutional Support and Subsidies

(15 Hrs.)

Sources of Raising Funds for an Entrepreneur- Need for Institutional Finance- Various Institutions supporting Entrepreneurial growth - Incentives and Subsidies: Meaning- Needs-Incentives and Subsidies available to Entrepreneurs0– DIC- Industrial Estates

UNIT V MSMED Act 2006

(15 Hrs.)

Introduction- Classification of Enterprises- Memorandum of MSMEs-Registration of MSMEs- MUDRA Scheme, Prime Minister's Employment Generation Programme (PMEGP), STAND-UP INDIA and START-UP INDIA: Objectives-Purpose-Loan facilities available-Applying Procedures.

TEXT BOOKS

- 1. Dr.S.S Khanka, Entrepreneurial Development, Sultan chand company Ltd.
- 2. AbhaJaiswal Micro, Small & Medium Enterprises Development Act, (Law, Policies & Incentives), Bharat Law House Pvt. Ltd

REFERENCE BOOKS

- 1. Vasant Desai, Small-Scale Industries and Entrepreneurship, Himalaya PublishingHouse, 2017
- 2. Prasanna Chandra- Project Preparation, Appraisal, Implementation, Tata McgrawHill, New Delhi.
- 3. G.N.Pande- A Complete Guide To Successful Entrepreneurship-Vikas PublishingHouse, New Delhi
- 4. C B Gupta & Srinivasan: Entrepreneurship Development in India, Sultan Chand.
- 5. A Gupta: Indian Entrepreneurial Culture, New Age International.

QUESTION PAPER PATTERN:

Time: 3 Hours Marks: 75

Part - A = 10x2 = 20 Marks - All the Questions are to be Answered. Part - B = 5x5 = 25 Marks - Five Questions with Internal Choice.

Part - C = 3x10 = 30 Marks - Three Out of Five - Open Choice.

Note: Questions should be asked from all the units with equal weightage.

II- B.COM	RETAIL MARKETING MANAGEMENT	19GCM42B
SEMESTER -IV	(For the Students Admitted from the year 2019 onwards)	HRS/WK –5
GENERIC ELECTIVE-		CREDIT - 4
II(B)		

Objective:

To create a strong knowledge base in retail marketing.

Course outcomes

After completing the course, the student will be able to:

- **CO1:** Students learn the concept of retailing, types and its important functions.
- **CO2:** Understand the knowledge about merchandise management.
- CO3: Identify factors that site location and layout of retail units.
- **CO4:** Familiarize with the promotions of retail, objectives with its functions.
- **CO5:** Acquire knowledge about e-retailing like IT-in retail, e-cash, e- commerce and smart cards etc.

Relationship Matrix Course Outcomes, Programme Outcomes and Programme Specific Outcomes.

SEMESTER IV		RSE C	ODE:	19GCN	142B	_	OURSE RKETIN				HOURS:5	CREDITS:4	
COURSE OUTCOME			GRAN			P	ROGRA OUT(MME S	_	IC	MEAN SCORE OF CO'S		
\mathbf{S}	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5			
CO1	4	5	3	4	3	5	5	4	5	3		4.1	
CO2	3	4	4	4	4	5	3	4	4	4		3.9	
CO3	5	5	4	5	5	4	5	3	5	3		4.4	
CO4	4	4	5	4	5	4	4	4	4	4	4.2		
CO5	3	3	4	5	4	5	4	3	5	3	3.9		
	Mean Overall Score								4.1				

Result: The Score of this Course is 4.1 (Very High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome.

UNIT-I Introduction to Retailing

[15 Hrs.]

Retailing – meaning, definition, characteristics, importance and functions – types of retailers – types of retailing formats – Product Retailing Vs service Retailing – Retailing environment.

UNIT-II Merchandise Management

[15 Hrs.]

Merchandise Management – Definition, key areas – phases in developing Merchandiseplan – Methods of planning and calculating inventory level – basic stock method, percentage variation method, week's supply method and stock to sales method –merchandiser's skill and profile.

UNIT – III Location of Retail Units

[15 Hrs.]

Retail location - factors affecting Retail location decision - site location and lay out -

factors affecting site location and lay out – steps in selecting site. Store design – interiors and exteriors.Retailing strategies – differentiation strategies – growth strategies expansion strategies – pricing strategies. Meaning of logistic and supply chainmanagement- issues of storage and warehouse facility.

UNIT – IV Promotion of Retail Outlets

[15 Hrs.]

Retailing promotion – definition – promotional objectives – SMARRTT objectives – approaches to promotional budget – promotional advertising – sales promotion -objectives and types- personal selling.

UNIT – V Information Technology in Retailing

[15 Hrs.]

Meaning and definition of IT – advantages and limitations of IT in Retail trade – competitive advantage of using IT – capturing and transmitting data at point of sale – systems for business communication and exchanging data – merchandise reorderingsystem – E - Retailing – merits – systems of E - Retailing – kinds of retailers engaged in E - commerce – Future trends – smart cards – E-cash - Multimedia Kiosk – Customerspecific offers – Electronic body scanners – E-Tailing in India.

TEXT BOOKS

- 1. Retail Marketing Dr. L. Natarajan, , Margam Publications, Chennai.
- 2. Retail Marketing Gilbert Pearson, Education Asia publication, New Delhi.

REFERENCE BOOKS

- 1. Channel Management & Retail Marketing MeenalDhotre, (E-book).
- 2. Retail Marketing Management David Gilbert, Pearson Education, India.
- 3. Retail Marketing Management SwapnaPradhan, (E-book).
- 4. Retail Management Gibson & Vedamani, Jaice Publishing House, New Delhi.
- 5. Retail Management Berman & Evans, Prentice-Hall of India, New Delhi.
- 6. Retail Management Micheal Levy & Barton Aweitz, Tata McGrew Hill Publishing Company Ltd, New Delhi.

QUESTION PAPER PATTERN

Time: 3 Hours Marks: 75

Part - A = 10x2 = 20 Marks - All the Questions are to be Answered.

Part - B = 5x5 = 25 Marks - Five Questions with Internal Choice.

Part - C = 3x10 = 30 Marks - Three Out of Five - Open Choice.

Note: Questions should be asked from all the units with equal weightage.

.I – M.COM	MICRO, SMALL AND MEDIUM ENTERPRISE	19PCM808
SEMESTER – II	MANAGEMENT	HRS/WK - 6
CORE-VII	(For the students admitted from the year 2019 onwards)	CREDIT-4

Objectives:

- 1. To enables the students to get a practical knowledge to start MSMEs.
- 2. To make aware about the policies and Incentives of Govt of India.

Course Outcomes:

At the end of the Course the students should be able to exhibit:

CO1: Understand the basic concepts of MSME's.

CO2: Determine the Financing options and Modes of MSME's.

CO3: Diagnosis the Taxation Benefits to Small-Scale Enterprises.

CO4: Gain knowledge on Supporting Institutions and subsidies.

CO5: Determine the concepts of MSME Rehabilitation.

Relationship Matrix Course Outcomes, Programme Outcomes and Programme Specific Outcomes.

SEMESTER –	COURSE CODE:19PCM808								O, SMALL MANAGEN		HOURS:6	CREDITS:4
COURSE		PROGRAMME OUTCOMES(PO)					AMMF SI	PECIFIC (OUTCOME	S(PSO)	MEAN SCO	RE OF CO'S
OUTCOMES	PO1	PO2	PO3	PO4	PO5		PSO2	PSO3	PSO4	PSO5	MEANSCO	RE OF CO 5
CO1	5	5	5	5	4	4	5	4	3	3	1	1.3
CO2	5	5	5	5	4	4	5	3	3	3		1.2
CO3	5	5	5	5	4	4	5	4	3	3	4	.1
CO4	5	5	5	5	4	4	5	4	3	3	4	1.2
CO5	5	5	5	5	4	4	5	4	3	3	4	1.2
		Mean Overall Score							4	1.2		

Result: The Score of this Course is 4.2 (Very High)

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome.

Unit-1: Introduction to MSME's

(20 Hrs)

Meaning and Definitions- Historical perspectives of MSME's and categories of development in MSME's-Characteristics-needs of MSME's-advantages and limitations- forms of small enterprises-Performance of small enterprises-Problems of Small Enterprises-Starting an Enterprise-Entrepreneurship Memorandum- Registration-Role of MSME's in economic development.

Unit-2: Financing options and Modes

(20 Hrs)

Financing MSME's –Reasons for lending to MSME's –Sources of Financing MSME's- Loan Products and their Nature-Credit process-The Credit assessment and MUDRA Scheme.

Unit-3: Taxation Benefits to Small-Scale Enterprises

(20 Hrs)

Rationale Behind tax benefits- Tax Holiday-Depreciation-Rehabilitation Allowance-Investment Allowance- Expenditure on Scientific research-Amortization of

Certain Preliminary Expenses-Tax Concession to Small-Scale Industries in Rural Areas & Backward areas. Expenditure on Acquisition of Patents and Copyrights- Incentives and Concession for Small-Scale and Tiny Industries.

Unit-4: Supporting Institutions and Subsidies

(15 Hrs)

Need for institutional support-NSIC-SIDO-SSIB-SISI-DIC-Industrial Estate-EDII-NIESBUD- Organizations under the control of State Government-Incentives and Subsidies available for MSME's in India.

Unit-5: MSME Rehabilitation

(15 Hrs)

Sick Units: Meaning and Definition - Causes of Sickness -Symptoms of Sickness-Classification of Sick Units- Preventive Measures-Guidelines for Rehabilitation of MSME's - MSME debt Restructuring Mechanism-Willful defaulters.

TEXT BOOKS:

- 1. Micro, Small and Medium Enterprises in India, Indian Institute of Banking and Finance, Taxmann Publications-2017.
- 2. Micro, Small and Medium Enterprises in the Indian Economy: Business Development Strategies, Pooja, New Century Publications-2009.

REFERENCES:

1. Entrepreneurial Development, Dr. S.S. Khanka, S. Chand Publications-2018.

QUESTION PAPER PATTERN

Time: 3 Hours Marks: 75

Part - A = $5 \times 6 = 30 \text{ Marks}$ - Five Questions with Internal Choice. Part - B = $3 \times 15 = 45 \text{ Marks}$ - Three Out of Five - Open Choice.

Note: Questions should be asked from all the units with equal weightage.



II-BBM -SEMESTER - III		HRS/WK -5
	MARKETING MANAGEMENT	
Generic Elective- 19 GBM 31		CREDIT - 4

Objectives: To enable the students to understand the elements of Marketing Mix and bases for Market segmentation and to know the stages of Product Life Cycle

UNIT I: INTRODUCTION

(15 Hrs)

Market- Meaning- Definition- Classification of markets. Marketing – Meaning – Definition-Evolution – Approaches - Modern marketing concepts - Marketing Mix with Extended 7Ps and 10 Ps-- Meaning-Concepts - Role of Marketing in Economic Development-Market Segmentation-Definition –Requirements –Bases for Market Segmentation.

UNIT II: PRODUCT

(15 Hrs)

Meaning- Features-Classification of products- Product Mix- Product Innovation-New Product Development-Product Life Cycle- Branding- Meaning- Advantages and Limitations - Packaging- Meaning- Kinds- Labeling- Meaning-Advantages and Limitation.

UNIT III: PRICING

(15 Hrs)

Price – Meaning - Pricing- Importance - Objectives- Factors affecting pricing decisions Pricing Policies- Procedure for price determination- Kinds of Pricing

UNIT IV: DISTRIBUTION CHANNELS

(15 Hrs)

Meaning-Importance-Marketing and Distribution- Middlemen in distribution - Function and Kinds of Middlemen -- Agents and Merchant Middlemen-Wholesalers -Types -- Services rendered by wholesalers - Retailers- Types -- Requisites -- Services rendered by retailers- Introduction to Supply Chain and Logistic Management -- Introduction to Networking Marketing and Niche Marketing.

UNIT V: PROMOTION

(15 Hrs)

Sales Promotion - Personal Selling – Meaning – Purpose – Types – Advantages - Limitations – Factors to be considered on Personal Selling. Advertising- Meaning and definition – Medias-Advantages- Limitations – Advertising copy – Definition – Elements of an Advertisement copy – Introduction to Cinema Advertising, Social Media Advertising, - Web Advertising, and Mobile Advertising.

TEXT BOOKS 1. R S N Pillai&Bagavathi, Modern Marketing principles& practices S. Chand& co ltd, New Delhi, 2004.

2. Dr. N Rajan Nair & Sanjith R Nair, MARKETING, New Delhi,

YEAR - II	BASICS OF COMPUTERS AND ITS	CODE – 19AOBC31
SEMESTER - III	APPLICATIONS	HOURS / WEEK –3
SKILL COURSE	(offered to Department of Commerce (Bank Management)	CREDIT -2

UNIT- I: Introduction of Basics of Computers

Introduction of Computer-Computer and its components- Characteristics of Computer-Generation of Computer-Types of Computers- Uses of Computers- Latest trends in computer

UNIT- II: Computer peripherals and Installing & Removing of Software

UNIT-III: PC Package:

Introduction to Word Processing, Advantages of word processing, Creating, Saving and Editing a document: Selecting, Deleting, Replacing Text, Copying text to another file. Formatting Text and Paragraph: Using the Font Dialog Box, Paragraph Formatting using Bullets and Numbering in Paragraphs, Checking Spelling, Line spacing, Margins, Space before and after paragraph.

UNIT-IV:

Introduction to spreadsheet, Entering information: Numbers, Formula, Editing Data in a cell, Excel functions, Using a Range with SUM, Moving and copying data, Inserting and Deleting Row and Columns in the worksheet, Using the format cells Dialog box, Using chart wizard to create a chart.

UNIT: V: Introduction to Power Point and Internet Basics

Introduction of slide presentation- Presentations-Creating, Manipulating & Enhancing Slides-Organizational Charts- Inserting clip Arts, Adding Objects- formatting and checking text. **Internet Basics:** Internet basics - Basic internet terms - Getting connected to internet - Internet applications - Electronic Mail - Searching the Web.

TEXT BOOKS:

- 1. Fundamentals of Computer , Kritika Gupta, Sunil Chauhan, AkashSaxena— Laxmi Publication.-2008
- 2. Fundamentals of Computer, Raja Raman, Prentice Hall of India publications .-2003
- 3. Microsoft Office 2007 Bible., John Walkenbach, Herb Tyson, Cary N.Pr, Faithe Wempen, John Wiley & Sons publications, 2007
- 4. Fundamentals of Internet and the World Wide Web "Raymond Greenlaw- -Second Edition-McGraw- Hill publications,2017

- 1. "Introduction to Computers and Basic Programming, Xavier," 3rd Edition , New Age International, New Delhi ,2008
- 2. "Computer Fundamentals ",Sinha P. K., 6th Edition,BPB publication

YEAR – II
SEMESTER IV
Inter-Disciplinary Course
(IDC)

ENGLISH FOUNDATIONAL COURSE FOR BANK EXAMINATIONS Offered to BBM& BBA (CA) Departments

Unit – I Knowledge

[15 HRS]

- 1. Parts of Speech
- 2. Sentence Structure
- 3. Answering a Passage
- 4. Fill In the Blanks (American Words, Grammar, Homophones)

Unit – II Understanding

[15 HRS]

- 1. Error Spot
- 2. Odd One Out
- 3. Phrase Replacement
- 4. Sentence Connector

Unit – III Skill/Ability

[15 HRS]

- 1. Cloze Test
- 2. Sentence Rearrangement
- 3. Double Filters
- 4. Reading Comprehension

Unit – IV Writing

[15 HRS]

- 1. Word Association
- 2. One Word Substitution
- 3. Verbal Ability
- 4. Writing Skill with Expressions.

Unit – V Creative Technique

[15 HRS]

- 1. Multiple Meaning
- 2. Miscellaneous
- 3. Sentence Improvement
- 4. Mock Interview

Text & Reference

- 1. R.S.Agarwal, *Objective English*. Chennai.
- **2.** Lewis, Norman. Word Power Made Easy.
- 3. S.P.Bakshi and Richa Sharma. Descriptive General English.

QUESTION PAPER PATTERN - (FROM BATCH 2019) OBJECTIVE TYPE

Section-A I. Reading (Knowledge, Understanding, Ability)

 $80x^{1/2}=40$ (Answer all)

Section-B: II. Skill Based (Writing, Creative Technique)

 $70x^{1/2}=35$ (Answer all)

Total Objective Questions 150

III- BBM		CODE: 19EBM55A
SEMESTER -V	RETAIL MARKETING MANAGEMENT	HRS/WK –6
Discipline Specific Elective-I(C)		CREDIT - 5

Objectives

- 1. To create a strong knowledge base in retail marketing.
- 2. To motivate the students to take up retailing business as a career.

UNIT-I INTRODUCTION TO RETAILING

[14 Hrs]

Retailing – meaning, definition, characteristics, importance and functions – types of retailers – types of retailing formats – Product Retailing Vs. service Retailing – Retailing environment.

UNIT-II MERCHANDISE MANAGEMENT

[18 Hrs]

Merchandise Management – Definition, key areas – phases in developing Merchandise plan – Methods of planning and calculating inventory level – basic stock method, percentage variation method, week's supply method and stock to sales method – merchandiser's skill and profile.

UNIT – III LOCATION OF RETAIL UNITS

[20 Hrs]

Retail location - factors affecting Retail location decision - site location and lay out - factors affecting site location and lay out - steps in selecting site. Store design - interiors and exteriors.Retailing strategies - differentiation strategies - growth strategies - expansion strategies - pricing strategies. Meaning of logistic and supply chain management- issues of storage and warehouse facility.

UNIT – IV PROMOTION OF RETAIL OUTLETS

[18Hrs]

Retailing promotion – definition – promotional objectives – SMARRTT objectives – approaches to promotional budget – promotional advertising – sales promotion - objectives and typespersonal selling.

UNIT – V INFORMATION TECHNOLOGY IN RETAILING

[20 Hrs]

Meaning and definition of IT – advantages and limitations of IT in Retail trade – competitive advantage of using IT – capturing and transmitting data at point of sale – systems for business communication and exchanging data – merchandise reordering system – E - Retailing – merits – systems of E - Retailing – kinds of retailers engaged in E - commerce – Future trends – smart cards – E-cash - Multimedia Kiosk – Customer-specific offers – Electronic body scanners – E-Tailing in India.

TEXT BOOKS:

- 1. Dr. L.Natarajan, 4th Ed 2014, Retail Marketing, MargamPcblications, Chennai.
- 2. Retail Marketing Management SwapnaPradhan

- 1. Channel Management & Retail Marketing MeenalDhotre.
- 2. Retail Marketing Management David Gilbert.

III-BBM		CODE: 19EBM 508
SEMESTER – V	PRINCIPLES OF INSURANCE	HRS/WK -6
Discipline Specific Elective-II		
(C)		CREDIT -5

OBJECTIVE:

To understands the basic insurance mechanism and the concept of insurance and how it is used to cover risk.

UNIT – I CONCEPT OF INSURANCE AND ITS EVOLUTION

(20 Hrs)

Concept and nature of insurance – evolution of insurance - how insurance operates today – Types of insurance – importance of insurance.

UNIT – II BUSINESS OF INSURANCE

(15 Hrs)

Management of risk by individuals – management of risk by insurers – fixing of premiums – reinsurance and its importance for insurers - role of insurance in economic development and social security - contribution of insurance to the society.

UNIT - III INSURANCE MARKET

(20 Hrs)

Constituents of the insurance market – operations of insurance companies - operations of intermediaries – specialist insurance companies – insurance specialists.

UNIT - IV INSURANCE CUSTOMERS

(15 Hrs)

Understanding insurance customers – customer needs - importance of customers – customer mindsets - customer behaviour at purchase point - customer behaviour when claim occurs - importance of ethical behaviour.

UNIT - V INSURANCE CONTRACT

(15 Hrs)

Insurance contract - significance - the principle of indemnity - the principle of subrogation - the principle of contribution - disclosure of all relevant information - principle of utmost good faith - the relevance of proximate cause - the insurance contract.

Text Book:

1. Principles of Insurance, Dr. RakeshAgarwal, Sashi Publications Pvt Ltd, New Delhi.

Reference Books:

- 1. Principles of Insurance, Dr. Robert I. Mehr, Richard D Irwin Publications.
- 2. Principles of Insurance, The Insurance Times, New Delhi.

III-BBM		CODE: 19EBM65A
SEMESTER – V	MERCHANT BANKING	HRS/WK -6
Discipline Specific Elective-III (C)		CREDIT -5

UNIT - I MERCHANT BANKING

(20 Hrs)

Merchant Banking – Recent Developments and Challenges ahead – Institutional Structure – Functions - Legal and Regulatory Framework – Provisions of Companies Act - SEBI guidelines-FEMA, etc. - Relation with Stock Exchanges and OTCEI.

UNIT – II ISSUE MANAGEMENT

(20 Hrs)

Issue Pricing – Book Building – Preparation of Prospectus Selection of Bankers, Advertising Consultants, etc. - Role of Registrars –Bankers to the Issue, Underwriters, and Brokers. – Shore Issues. – Issue Marketing – Advertising Strategies – NRI Marketing – Post Issue Activities.

UNIT - III OTHER FEE BASED SERVICES

(15 Hrs)

Mergers and Acquisitions – Portfolio Management Services – Credit Syndication – Credit Rating – Mutual Funds - Business Valuation.

UNIT - IV FUND BASED FINANCIAL SERVICES

(20 Hrs)

Leasing and Hire Purchasing – Basics of Leasing and Hire purchasing – Financial Evaluation.

UNIT - V OTHER FUND BASED FINANCIAL SERVICES

(15 Hrs)

Consumer Credit – Credit Cards – Real Estate Financing – Bills Discounting – factoring and Forfeiting – Venture Capital.

Text Books

- 1. M.Y.Khan, Financial Services, Tata McGraw-Hill, 11th Edition, 2008
- 2. NaliniPravaTripathy, Financial Services, PHI Learning, 2008.

Reference Books

- Machiraju, Indian Financial System, Vikas Publishing House, 2nd Edition, 2002.
 - 2. J.C.Verma, A Manual of Merchant Banking, Bharath Publishing House, New Delhi,
 - 3. Varshney P.N. & Mittal D.K., Indian Financial System, Sultan

Chand & Sons, New Delhi. 4. Sasidharan, Financial Services and System, Tata Mcgraw Hill, New Delhi, 1st Edition, 2008.

YEAR - III		CODE – 19JBM608
SEMESTER – VI	PROJECT WORK	HOURS / WEEK – 6
CORE THEORY -14		CREDIT - 4

Chapter	Contents
	Introduction
	Need for the study
	Objectives of the study
	Hypotheses of the study
01 . 4	Scope of the study
Chapter -1	Limitations of the study
	Research Methodology
	Nature of the study
	Study area
	Period of study

	Population
	• Sample size
	Sampling technique
	Sample collection instrument
	Method of data collection
	Data analysis tools (statistical tools)
	Chapter Scheme
	Review of Literature
Chapter -2	Conceptual Literature
	Related Literature
Chapter -3	Company Profile / Industry profile
	Analysis and Interpretation of Data
Chapter -4	 Frequency Tables (Percentage analysis)
	 Tools Tested Tables
	Findings
Chapter -5	Suggestions
	Conclusion
	Appendices
Chapter -6	 Bibliography
	Questionnaire/Interview Schedule

Guidelines

Group Project shall be undertaken.

- Maximum number of students per group is five (5).
- Project work shall be done in companies/Banks/Institution/General Public
- Project report is mandatory (in prescribed format)
- Hard bound copy and soft copy of the project report must be submitted to the department.

Examination Pattern

• Project report – 75 Marks

• Viva Voce – 25 Marks

(Detailed Project Guidelines are attached at the end)

IIYR-BSC
(CS)/BA (ENG)
SEMESTER – IV
GENERIC
ELECTIVE - 1

FUNDAMENTALS OF DIGITAL BANKING (from 2019 batch onwards)

CODE: 19ABE303
HRS/WEEK – 5
CREDIT –

UNIT-I: Banking and Digital Banking Products

(15 hrs)

Introduction —Banks-types of banks types of bank accounts and procedure to open bank accounts- services provided in branch -Need for Digital Banking Products - Digital Banking Products -Cards -Overview and brief history-Various types of cards -Product features -EMV technology -New Technologies — Tap and Go, NFC, etc. -Approval Processes for Cards -Back End operations -Recovery and Follow up

Unit-II: ATM (15 hrs)

Overview and Brief History-Product Features -Instant Money Transfer -Systems -Various Value-Added Services (eg., bill payments, donations, etc) -Proprietary, Brown Label and White Label ATM -ATM Network Planning – Onsite / Offsite -Security and Surveillance of ATM Sites -- Risk Management and Frauds-Back End operations and Technology

Unit- III: Cash Deposit Machines

(15 hrs)

Overview and Brief History-Product Features -CDM Network Planning – Onsite / Offsite -Risk Management and Frauds -Back End Operations and Technology -cash re-cyclers –Overview-Product Features-Risk Management and Frauds-Back End Operations and Technology

Unit IV- Internet and Mobile Banking

(15 hrs)

Internet banking: Overview and Brief History -Product Features -Corporate and Individual Internet Banking Integration with e-Commerce Merchant sites -Risk Management and Frauds-Back End Operations and Technology-pos terminals-Overview and Brief History -Product Features-Approval processes for POS Terminals -Profitability of POS business Risk Management and Frauds -Back End Operations and Technology- Mobile banking- Overview and Brief History -Product Features and Diversity -IMPS -Profitability of Mobile Banking -Risk Management and Frauds-Back End Operations and Technology

Unit-V Payment Systems

(15 hrs)

Overview of global payment systems -Overview of domestic payment systems-RuPay and RuPay Secure-Immediate Payment Service (IMPS) -National Unified USSD Platform (NUUP) - National Automated Clearing House (NACH) -Aadhaar Enabled Payment System (AEPS) e-KYC -Cheque truncation System (CTS)-National Financial Switch-(NFS) ,RTGS ,NEFT – payment through **E-wallets** .

Text Books:

- 1. Digital banking- Indian institute of bankers and finance- new Delhi- 2016
- 2. Digital banks –Raj.Ksingh –Adyyan publication-new delhi-2015
- 3. Website of Reserve bank of India

Reference Books:

- 1. Power of mobile banking- Sankar Krishnan-John wilay& sons- inc- Newyork-2016
- 2. Digital banking tips- TolgaTarlas- create space independent publishing house-2013
- 3. Digital banking Revolution- E book- www. digitalbankingrevolution.com

QUESTION PAPER PATTERN

Time: 3 Hours Marks: 75

- 1. Part-A: $10 \times 2 = 20$ marks. All the questions to be answered.
- 2. Part-B: $5 \times 5 = 25$ marks. Five out of seven. [open choice]
- 3. Part-C: $3 \times 10 = 30$ marks. Three out of five. [open choice]

III-BBM	 	CODE-19BM 503
SEMESTER -V		HRS/WK -6
CORE – 11		CREDIT -5

OBJECTIVE:To enable the students understand and to contribute to the strategic operational policies and practices of commercial bank management in a competitive environment.

UNIT-I BANKING STRUCTURE

(15hrs)

Banking structure in India – Functions of commercial banks – Commercial banks and credit creation – Techniques – Advantages – Limitations – Criticism - Indian Private sector banks – Foreign banks.

UNIT-II LENDING PROCEDURES

(20hrs)

Bank Lending – Principles of Bank lending – Forms of Lending – Securities for lending – Factors influencing bank lending – Types of Loans & advances – Classification of loans & advances – Assessing credit worthiness of borrowers – Collection of credit information – Factors limiting the level of a bank advances – Consortium advances.

UNIT-III MANAGEMENT OF NPAs

(20hrs)

Non Performing Assets (NPAs) – Classification of NPAs – General aspects in NPA management - Procedure for purchase and sale of the NPAs among banks - Early Warning Signals - Management of NPAs - Factors affecting NPAs in India – Impact of NPAs – Problems faced by banks in managing the NPAs - Steps taken to reduce NPAs - Remedies Available - Recent Measures

UNIT-IV INVESTMENT OF BANK FUND

(15hrs)

Investment management – Purpose of investment – Classification of investment – Investment in securities – Factors to be considered while investing – Different kinds of investment – Investment in Government securities – Valuation of investment – New mode of valuation of securities – Profitability management – Profit planning – source of profit – Steps to increase profit – Profit ratios.

UNIT-V MARKETING MANAGEMENT IN BANKS

(20hrs)

Marketing in Banks – Types of bank customers – Marketing Management – E- stages in evolution of marketing – Difference between service and products – Marketing of Banking products (Deposits, Advances), - Business of banking – Deposits, Deposit mobilization – Role of staff in deposit mobilissation – Marketing mix – The 7ps – Promotional Programmes and sale of services.

Text Books

- 1. Varshney, PN. Banking Law & Practice, Sultan Chand, New Delhi.
- 2. S.N.Maheswari, Banking Law & Practice, Ludiana, Kalyani Publications.

Reference Books

1. Vasant Desai, Principles of Bank Management, Mumbai, Himalaya Publications. 2. P.SubbaRao, P.K.Khanna, Principles and practice of bank management, Himalaya Publications.

I-BBM
SEMESTER - I
CORE – 1

PRINCIPLES OF MANAGEMENT

CODE-19BM101
HRS/WK - 6
CREDIT - 4

OBJECTIVE:

To give basic knowledge to the students on concepts and principles of management

UNIT -I INTRODUCTION TO MANAGEMENT

(15Hrs)

Definition & Meaning of management-Functions of Management -levels of management - roles of manager, Management as a Science or Art - Contribution to management by F.W.Taylor, Henry Fayol, and Peter F. Drucker

UNIT-II – PLANNING

(20 Hrs)

Planning - importance - Process of planning - types of planning - planning methods (Objectives-Policies- Procedures - Strategies & Programmes) - Obstacles to effective planning. Decision making - Steps - Types.

UNIT III-ORGANISING

(20 Hrs)

Organization - Importance - Principles of Organizing Delegation & Decentralization - Departmentation - Span of Management. Organizational structure - line & staff and functional.

UNIT-IV-DIRECTINGANDMOTIVATING

(20Hrs)

Function of directing - Motivation - Theories of motivation (Maslow, Herzberg and Vroom's theories) Motivation techniques. Leadership - Characterisitics - Functions or Role of a Leader-Leadership styles - Theories of Leadership.

UNIT -V -CO-ORDINATION AND CONTROL

(15Hrs)

Co-ordination – Characteristics – Elements – Types – Principles – Techniques – Co-ordination Vs Co- operation- Benefits – Problems. Control- Characteristics- Types – Steps- Advantages-Limitations. Techniques of Control (Traditional techniques, Modern techniques - Budgetary Control, Break- Even Point (BEP)Analysis- Return On Investment Control- Responsibility Accounting – Network Techniques – PERT and CPM)

TEXT BOOK:

- 1.Gupta C. B, Business Management, Sultan Chand & Sons, New Delhi, 2011
- 2. Dr. C.D.Balaji, Principles of Management, Margham Publications

- 1. Hanagan , Management Concepts & Practices , MacMillan India Ltd.
- 2. Stoner, Freeman & Gilbert Jr Management Prentice Hall of India
- 3. P.C. Tripathi& P.N. Reddy, Principles of Management, Tata McGraw-Hill

I-BBM		CODE- 19BM204
SEMESTER – II	BUSINESS CORRESPONDANCE	HRS/WK -6
CORE – 4	From 2019 -20 batch onwards	CREDIT - 4

Objective:

To familiarize with the essentials of an effective business letter and to train them to draft business letters relating to different situations.

UNIT-I ESSENTIALS OF EFFECTIVE BUSINESS LETTERS: (20hrs)

Business Correspondence – Need – Functions – Kinds of Business Letters – Essentials of an Effective Business Letter - Layout

UNIT-II KINDS OF BUSINESS LETTER:

(20hrs)

Business enquiries and replies - Credit and status enquiries - Placing orders - Sales letters - Collection letters. Applications for employment - References - Letters of appointment - Confirmation - Promotion

UNIT-III CORRESPONDENCE WITH FINANCIAL SERVICE INSTITUTIONS (15Hrs)

Bank Correspondence – Insurance Correspondence – Agency Correspondence – Correspondence with Shareholders, Director

UNIT-IVOFFICE CORRESPONDENCE:

(15hrs)

Reports Writing – Agenda, Minutes of Meeting – Memorandum – Office Order – Circular – Notes.

UNIT-V MODERN FORMS OF COMMUNICATION:

(20 Hrs)

SMS – Email–Video Conferencing–Internet–Mobile Communication – Websites and their use in Business.

TEXT BOOK:

- 1. R.S.N. Pillai and Bagavathi, Commercial Correspondence and Office Management, S.Chand and Co. Ltd. New Delhi, 1997.
- 2. M.S. Ramesh, C.C. Pattanshetti, 1996. Business Communication, R. Chand &co,New Delhi.

- 1. Prasanta K. Ghosh, 2000. Office Management, New Delhi.S.ChandAnd Sons.
- 2. HomaiPradhan, D.S. Bhende, Vijaya Thakur, 1996. Business Communication, Bombay. Himalaya Publishing House.
- 3. Penrose, Rasberry, Myers. 2000. Advanced Business Communication. Bangalore: Thomson Southwestern Publishers.

YEAR – III	FINANCIAL MANAGEMENT	CODE: 17BB501
SEMESTER -V		HRS/WK – 6
CORE – 10		CREDIT - 5

UNIT- I FINANCE FUNCTIONS (Theory Only)

(12HRS)

Finance functions: Meaning- Definition and scope of Financial functions- Objectives of Financial Management- Profit maximization and Wealth maximization. Sources of Finance-Short term-Long term – Shares- equity Shares- Preference Shares- Debentures- Debt.

UNIT- II FINANCING DECISIONS (Problem and Theory Questions) (17 Hrs)

Financing Decisions: Cost of Capital - Cost of specific Sources of Capital- Equity- preferred stock – debt- Reserves- Weighted average cost of Capital, Operating Leverage and Financial Leverage.

UNIT- III CAPITAL STRUCTURE (Problem and Theory Questions) (14Hrs)

Capital Structure- Factors influencing Capital Structure- Optimal Capital Structure-Capital Structure Theory- Dividend and Dividend policy: Meaning, classification – sources available for dividends – Dividend policy general, determinants of dividend policy.

UNIT- IV WORKING CAPITAL MANAGEMENT (Problem and Theory Questions) (20 Hrs)

Working Capital management: Concepts – Importance- Determinants of Working Capital-Working Capital management- Problems - Cash management: Motives for holding cash- Objectives and strategies of cash management Receivables Management: Objectives- Cost of credit Extension, benefit – credit policies- credit terms- Collection Policies

UNIT- V CAPITAL BUDGETING (Problem and Theory Questions)(12 Hrs)

Capital Budgeting - meaning - Objectives- Preparation of various types of capital budgeting

(Theory carries 70% and problems carry 30 %)

Textbooks:

- 1. Financial Management (TEXT, PROBLEMS AND CASES) **M.Y.KHAN and P.K.JAIN**-Published by Tata Mc Graw-Hill Education Private Limited-New Delhi-10th Edition.
- 2. Financial Management-**I. M. Pandey-**Published by Vikas Publishing house Pvt. Ltd.-Noida-19th Edition.

Reference books:

- 1. Financial Management **P. Periasamy**-Published by Tata McGraw-Hill Education Private Limited-New Delhi-6th Edition.
- 2. Financial Management (Text and Cases)-**Eugene F. Brigham and Michael C. Ehrhardt**-Published by Cengage Learning India Pvt. Ltd.- 8th Edition.
- 3. Fundamentals of Financial Management-**Bhabatosh Banerjee** Published by PHI Learning Private Ltd.- New Delhi-8th Edition.
- 4. Financial Management **Jonathan Berk, Peter DeMarzoand Ashok Thampy-** Dorling Kindersley (India) Pvt. Ltd.,-Noida-5th Revised Edition
- 5. Financial Management-A.Murthy-Published by Margham Publications Chennai-5th Edition

YEAR – III	RESEARCH METHODOLOGY	CODE: 17BB502
SEMESTER -V		HRS/WK – 5
CORE – 11		CREDIT – 5

Objective:

To impart the students with knowledge in exposing in the field of research by both theoretical and practical.

Unit – I Introduction to Research and Methods

(15Hrs)

Research – Meaning and Definition- Types of Research – Research Methods – Problems faced by Researcher – Research Process _ Various Steps in Research Process. Review of literature – Identification Research Gap – social relevance of research - Research Problem – Sources, Identification and Developing Research Problem – Construction of Research Questions – Framing Objectives and hypotheses.

Unit –II Research Design

(18 Hrs)

Concepts – Meaning, Definition and types - Variables – Meaning & Definition – Types of Variables. Research Design - Meaning, Definition - types of Research Design – Experimental and non-Experimental Research Design – Characteristic of good Research Design – Relationship between Research Problem and Research Design.

Unit –III Sampling Design and Data Collection

(17Hrs)

Sample – meaning and definition- sample size- sampling design – meaning and definition-essentials of good sampling design- methods of sampling- random and non- random sampling-sampling and non-sampling error- reduction of sampling errors. Data- types of data- primary data- different methods of collecting primary data- measurement of scale and scaling techniques-construction of questionnaire-secondary data- various sources of secondary data

Unit –IV Data analysis

(15Hrs)

Steps in processing the data – editing- coding- classification- content analysis- tabulation-methods of tabulation. Application of statistics in data analysis- descriptive statistics- mean, median, mode, standard deviation- correlation and regression- inferential statistics using Excel- chi-square test- ANNOVA, T-test-,F-Test- tools for testing hypothesis. Application of computer in modern research.

Unit -V Report writing

(10Hrs)

Research report- meaning-, types of research report- essential of good research report- stages in preparing research report- structure of research report- preliminary pages, main body of the report and reference material- guidelines and mechanics for preparing research report. Reporting standards.

Text book:

Kothari.C.R. – —Research Methodology – methods and technology New age international publisher, New Delhi.

Reference books:

- 1. Paneerselvam.R. —Research Methodology Prentice Hall of India, New Delhi, 2004.
- 2. Krishnaswami .O.R. —Methodology of Research in Social sciences Himalaya Publishing House, Mumbai.
- 3. Dr.D. Amarchand, (2000) Research Methods in Commerce, Emerald Publications, Chennai.

III- BBA (CA)		17BB503
SEMESTER -VI	INVESTMENT MANAGEMENT	HRS/WK - 6
GENERIC ELECTIVE – 2		CREDIT - 4

Objectives

- 1. To enable the students to apply various tools and techniques of Investment and risk management.
- 2. To provide knowledge on various investment avenues that benefits the individual and nation.

UNIT- I Introduction to Investment

(15 Hrs.)

Investment Meaning- Investment Vs. Speculation- Investment Vs Gambling- Important factors favorable for Investment Program- Stages in Investment - Investors Classification

UNIT -II Security Investment

(15 Hrs.)

Meaning- Bonds- Preference Shares- Equity shares- Derivatives- Options- Swaps- Futures- Mutual funds

UNIT -III Non Security Investment

(15 Hrs.)

Meaning- Government Securities- Life Insurance- UTI- Commercial banks- Provident fund- Post office schemes- National Savings Schemes- Fixed Deposit Schemes.

UNIT -IV Risk and Return

(15 Hrs.)

Meaning- Historical and Expected return- Types of risk- Measurement of risk

UNIT-V Fundamental and Technical Analysis

(15 Hrs.)

Meaning- Economy, Industry and Company Specific analysis- Tools for technical analysis- Charts, Support and Resistant level analysis.

TEXT BOOKS

- 1. Investment Management Preeti Singh, Himalaya Publishing House. New Delhi. 2014
- 2. 2.Prasanna Chandra, (2009), Investment Analysis and Portfolio Management, Tata McGraw Hill Publishing Company Limited, New Delhi.

- 1. Natarajan L, (2009), Investment Management Security Analysis and Portfolio Management, Margham Publication, Chennai.
- 2. Avadhani VA, (2008), Investment and Securities Market in India, Himalaya Publishing House, Mumbai.
- 3. Bhalla VK, (2009), Investment Management, Security Analysis and Portfolio Management, S.Chand and Company Ltd, New Delhi.

YEAR - III	FINANCIAL AND CAPITAL MARKETS	CODE - 17EBB51A
SEMESTER - VI		HOURS / WEEK - 6
DISCIPLINE SPECIFIC	FINANCIAL AND CAFITAL MARKETS	CREDIT - 4
ELECTIVE -3		CREDII - 4

Unit: 1 Introduction Indian Financial Market

(15 hours)

Indian Financial System - Overview- Significance - Indian Financial Market And International Financial Market - Financial Institution - Financial Services - Meaning - Functions - Primary Market - Secondary Market - Difference Between Primary Market And Secondary Market.

Unit: 2 Capital Market

(15 hours)

Capital Market - Importance - Classification - Primary Market (New Issue Market) - IPO - Advantages - Capital Market Instrument - Equity Shares - Preference Share - Debentures - Derivatives - Functions Of New Issue Market - Offer For Sale - Private Placement - Rights Issue - Bonus Issue.

Unit: 3 Secondary Market

(15 hours)

Secondary Market - Importance Of Secondary Market - Factors Influence Of Secondary Market - Stock Exchange - Need And Function of Stock Exchanges - OTCE - Broker - Sub Broker - Trading And Clear Members - Foreign Brokers - Jobbers - Market Makers.

Unit 4: Money Market

(15 hours)

Money Market - Concepts - Features of Money Market - Structure of Money Market - Difference between Capital And Money Market - Money Market Instruments - Participant In Money Market.

Unit 5: SEBI (15 hours)

Securities Exchange Board of India – Importance, Functions and Departments of SEBI - Regulations - SEBI Power and Guidelines – Securities Contract Regulation Act.

TEXT BOOKS:

- 1 Siddhartha Sankar Saha, Indian Financial systems: Financial markets institutions and services , McGraw-Hill , 2^{nd} Edition (2018)
- 2 Frederic S Mishkin, Economics of money and Banking; Pearson India, 11th Edition (2019)

REFERENCE BOOKS:

1. Financial Services, M.Y.Khan, McGraw-Hill, 7th edition (2013)

- 2. Financial Services B.Santhanam, Margham publications (2016)
- 3. Peter S. Rose, Money and Capital Markets: Financial Institutions and instruments in a global market place, Irwin/ McGraw-Hill (2003)

III- B.COM
SEMESTER -V
DISCIPLINE SPECIFIC
ELECTIVE – 1

RETAIL MARKETING MANAGEMENT

(For the Students Admitted from the year 2019 onwards)

17EBB51B
HRS/WK -5
CREDIT - 4

Objectives

- 1. To create a strong knowledge base in retail marketing.
- 2. To motivate the students to take up retailing business as a career.

UNIT-I Introduction to Retailing

[14 Hrs.]

Retailing – meaning, definition, characteristics, importance and functions – types of retailing – types of retailing formats – Product Retailing Vs service Retailing – Retailing environment.

UNIT-II Merchandise Management

[18 Hrs.]

Merchandise Management – Definition, key areas – phases in developing Merchandise plan – Methods of planning and calculating inventory level – basic stock method, percentage variation method, week's supply method and stock to sales method – merchandiser's skill and profile.

UNIT – III Location of Retail Units

[20 Hrs.]

Retail location - factors affecting Retail location decision - site location and lay out - factors affecting site location and lay out - steps in selecting site. Store design - interiors and exteriors. Retailing strategies - differentiation strategies - growth strategies - expansion strategies - pricing strategies. Meaning of logistic and supply chain management- issues of storage and warehouse facility.

UNIT – IV Promotion of Retail Outlets

[18Hrs.]

Retailing promotion – definition – promotional objectives – SMARRTT objectives – approaches to promotional budget – promotional advertising – sales promotion - objectives and types- personal selling.

UNIT - V Information Technology in Retailing

[20 Hrs.]

Meaning and definition of IT – advantages and limitations of IT in Retail trade – competitive advantage of using IT – capturing and transmitting data at point of sale – systems for business communication and exchanging data – merchandise reordering system – E - Retailing – merits – systems of E - Retailing – kinds of retailers engaged in E - commerce – Future trends – smart cards – E-cash - Multimedia Kiosk – Customer-specific offers – Electronic body scanners – E-Tailing in India.

TEXT BOOKS

- 1. Retail Marketing Dr. L. Natarajan, , Margam Publications, Chennai.
- 2. Retail Marketing Gilbert Pearson, Education Asia publication, New Delhi.

- 1. Channel Management & Retail Marketing Meenal Dhotre, (E-book).
- 2. Retail Marketing Management David Gilbert, Pearson Education, India.
- 3. Retail Marketing Management Swapna Pradhan, (E-book).
- 4. Retail Management Gibson & Vedamani, Jaice Publishing House, New Delhi.
- 5. Retail Management Berman & Evans, Prentice-Hall of India, New Delhi.
- 6. Retail Management Micheal Levy & Barton Aweitz, Tata McGrew Hill Publishing Company Ltd, New Delhi

YEAR – III
SEMESTER -V
DISCIPLINE
SPECIFIC ELECTIVE - 2

INTERNET AND ITS APPLICATIONS

17EBB52A		
HRS/WK - 6		
CREDIT – 4		

Unit – I Web Design Principles:

[15 Hrs]

Basic principles involved in developing a web site - Planning process - Five Golden rules of web designing - Designing navigation bar - Page design - Home Page Layout - Design Concept. Brief History of Internet - What is World Wide Web - Why create a web site - Web Standards.

Unit – II Introduction to HTML:

[15 Hrs]

What is HTML - HTML Documents - Basic structure of an HTML document - Creating an HTML document - Mark up Tags - Heading-Paragraphs - Line Breaks - HTML Tags.

Unit - III Elements of HTML:

[15 Hrs]

Text level tags: Bold - Italic - Underlined - Strike-through - superscript - subscript. HorizontalRules

Colors' in web page: Background color - Text color - Link color. Lists: Ordered Lists - Unordered Lists - Definition List - Nesting lists - Images: Image formats.

Unit - IV Using Tables in HTML:

[15 Hrs]

Creating Tables - Editing of rows and columns of table - rowspan - colspan - formatting tables using attributes border - Border colour - back ground - align - width - cell spacing - cell height.

Unit – V Creating Forms:

[15 Hrs]

Forms controls: text controls - Password fields - Radio Buttons - Check boxes - Reset and Submit buttons. Introduction to frames - Advantages and disadvantages of frames - creating basic frames Frame targeting.

Text Book:

1. Castro, HTML 4 for World Wide Web, 3rd ed. Pearson education.

Reference Books:

- 1. HTML 5 in simple steps Dreamtech Press, Kogent Learning Solutions Inc.
- 2. A beginner's guide to HTML, NCSA,14th May,2003.

YEAR – III	INFORMATION SYSTEM DESIGN	17EBB52B
SEMESTER -V		HRS/WK - 6
DISCIPLINE SPECIFIC		
ELECTIVE - 2		CREDIT -4

UNIT – I [15 Hrs]

Definition of Management Information System - Structure of MIS - Information system fordecision making - The role of system analyst - Data base management system.

UNIT – II [15 Hrs]

Computes and Information Processing - Classification of computers - Main frames - Mini Computers - workstations - micro computers - super computers - Personal Computers - Input Devices - Computer mouse - touch screen - MICA - OCR - pen based input - digital scanners - voice input devices - sensors - Output devices - video display terminals - printers - plotters - voice output devices - Secondary storage - magnetic disk storage - magnetic tape storage - optical disk storage.

UNIT – III [15 Hrs]

System Analysis - System Planning and the mutual investigation - Information gathering MISOrganization - Top management - Data processing group's responsibility

UNIT - IV [15 Hrs]

Management and MIS - MIS as competitive advantage – MIS support for planning, organizing, operating, controlling an knowledge work - specific function - finance - personnel - production - materials –marketing -Data representation in computers – Batch Processing Vs online processing.

UNIT - V [15 Hrs]

Decision Support System - definition - examples of DSS - components - building DSS - GroupDecision Support System - GDSS tools - role of GDSS - Executive System - role developing DSS

- benefits – examples.

TEXT BOOK:

1. Gordon Bitter Davis, Margrethe H. Olson, Management Information System: conceptualfoundations, structure, and development, McGraw Hill, 2nd Reprint.

- 1. S. Sadagopan, Management Information Systems, Prentice Hall of India, Eastern EconomyEdition.
- 2. Robert G. Murdick, Joel E. Ross, Introduction to Management Information Systems, Prentice-Hall of India.
- 3. S. P. Rajagopalan, Management Information System, Margham Publications.

YEAR - III		17BB601
SEMESTER -VI	HUMAN RESOURCE MANAGEMENT	HRS/WK – 6
CORE – 14		CREDIT - 5

Objectives: To enable the students to understand the Human resource management concepts and principles and to create awareness about the existing HR practices of the companies in India

UNIT-I: [15 Hrs]

Human Resources Management – definition, meaning and function of HRM -qualities and roles of HR manager - problems and challenges of a HR manager.

UNIT -II: [15 Hrs]

Human Resource Planning – definition – importance - HRP process - Job analysis – nature, process, concept of job design, methods- techniques– Job description- job specification

UNIT -III: [15Hrs]

Recruitment and selection – meaning and definition, objectives - sources of recruitment, process, methods, and recruitment practice in India- interviews.

UNIT- IV: [15 Hrs]

Training and Methods: Meaning – nature, principles, assessing the needs of training, training and development as source of competitive advantage – methods of training, evaluation of effectiveness of training programme

UNIT- V: [15 Hrs]

Performance And Potential Appraisal - meaning, purpose-process - methods, problem - managing grievances and discipline.

Text books:

- 1. Human resource management S. S. Khanka
- 2. Human resource management K. A. Aswathappa

Reference books::

- 1.Personnel Management and Industrial Relations- P.C. Tripathi -Sultan Chand & sons- 19th Edition- 2006
- 2.Personnel& Human Resource Management- P.SubbaRao, Himalaya Publishing House,,Mumbai, 3rd Edition, 2003
- 3. Human Resource management- M.S. Saiydyan, Tata Mcgraw Hill Publishing, New Delhi, 1st Edition.

YEAR - III		17BB602
SEMESTER - VI	PROGRAMMING USING MICROSOFT TECHNOLOGY (C#.NET)	HRS/WK - 3
CORE - 15		CREDIT - 3

Objective:

To improve the programming skills of the students with respect to C# and to make the students to know the latest programming concepts.

UNIT-I (15 Hrs)

Introduction to Dot Net- Introducing C# and its features- Variables-data types and Operators.

UNIT -II: (15 Hrs)

Control Structures-Array-Classes-Methods-Namespace-Interface-Simple example using Console Application.

UNIT-III: (15 Hrs)

Introduction to C# Window Forms-Standard Controls:Label,Button,Textbox,RadioButton,Combo Box.

UNIT-IV: (15 Hrs)

pictureBox, Timer Control, Richtext Box, Progress Bar, Datetime Picker, MenuStrip.

UNIT -V: (15 Hrs)

Introduction to ADO .Net Objects - Creating new data Connection - Accessing data using Connection class, Command Class and Data Reader Class.

Text books:

- 1. Yashavant Kanetkar, 2004 *C#.Net.* Motilal Books of India.
- **2.**Peter Drayton, Ben Albahari, Ted Neward. *C# in an nutshell*. O 'Reilley Publication
- 3.E.Balaguruswamy. *Programming with C#-* 1- Edition. Tata McGraw Hill Publication.

Reference books:

- 1. Herbert Schlitz. 2002 C# A Beginner's Guide. Osborne/ McGraw Hill Publication.
- 2. Burton Harvey, Simon Robinson, julianTempleman and KarliWaston, 'C# Programming with the Public Bata', Shroff Publishers & Distributors Pvt.Ltd(SPD) Mumbai, April 2001.
- 3. Ben Albahart, Peter Drayton and Brad Merrill, _*C# Essentials*', SPD, Mumbai March 2001.
- 4. ThamariSelvei, A text Book on C#: A Systematic Approa

YEAR - III			17BBP601
SEMESTER - VI	PROGRAMMING USING MICROSOFT (C#.NET) PRACTICAL	TECHNOLOGY	HRS/WK - 3
CORE PRACTICAL			CREDIT - 2

Objective:

To improve the programming skills of the students with respect to C# and to make the students to know the latest programming concepts.

Console Application:

- 1. Factorial Number using methods.
- 2. Implement Arithmetic Manipulation using Namespace.
- 3. Prime number using Interface.

Windows Application:

- 4. Create a simple Window Forms in c#.
- 5. Create a simple Bio data.
- 6. Login Form Creation using Ms Access
- 7. Database Application to store phone numbers along with your name.
- 8. Database Application for Student mark list processing.

YEAR – III	ORGANISATIONAL BEHAVIOUR	17BB603
SEMESTER VI	(For the students admitted from the year 2019	HRS/WK – 6
CORE – 16	onwards)	CREDIT - 5

Objective: To familiarize the students with the concepts and dimensions of Organization Theory.

Unit 1: INTRODUCTION:

(15 Hrs)

Organizational behavior (OB) – Features – Scope – Fundamental Concepts of OB – Challenges and Career Development for OB – Contributing disciplines to the OB.

UNIT II: INDIVIDUAL AND GROUP BEHAVIOUR:

(15 Hrs)

Individual Behavior – Personality Determinants – Big five Personality factors – Learning Theories. The Perpetual Process – Factors influencing perception – Internal & External Attitudes and Behavior – Attitude Formation and Attitude Change.

Group Behavior – Fundamentals of Groups – Stages of Development – Important Factors influencing Team Effectiveness – Cohesiveness – Norms – Decision Making.

UNIT III: MOTIVATION AND MORALE

(15 Hrs)

Motivation – Motivational Processes – Theories of Motivation (Maslow, Herzberg, McCleland and Vroom) – Learning and Reinforcement Theory. Morale – Factors influencing Morale.

UNIT IV: ORGANISATIONAL POWER AND POLITICS

(15 Hrs)

Power and Politics: Power bases – dependency – Individual versus Organizational Power – political process in Organization – factors contributing – techniques of organizational politics - managing political behavior.

UNIT V: ORGANISATIONAL CULTURE AND CONFLICT

(15 Hrs)

Organizational Culture – Concepts – Forming a Culture – Sustaining a Culture- Changing a Culture – Conflict – Transition in Conflict Thought – Functional and Dysfunctional Conflict – Process of Conflict – Managing Conflict.

TEXT BOOK

1. Aswathappa: Organizational behavior, Himalaya publisher

- 1. Hellriegel: Organizational behavior, 10e, Thomason 2006
- 2. Robins P. Stephen & Judge: Organizational Behavior, 12/e PHI, New Delhi 2007
- 3. Daft: Organizational theory and design, Thomson 2005

YEAR - III		17EBB63A
SEMESTER -VI	STRATEGIC MANAGEMENT	HRS/WK - 6
CORE ELECTIVE -3		CREDIT - 4

OBJECTIVES:

To enable the students to apply the specific strategic knowledge in different functional areas. This course will enable the students to devise, execute and evaluate different strategies in their everyday work-life.

UNIT-I: [15 Hrs]

Introduction : Strategic management – definition - Conceptual evolution of strategies – need, importance, scope of strategic management –risks of strategic management – Strategicdecision making process.

UNIT-II: [15 Hrs]

Mission – Vision – Goals – Objectives - Policies and Strategies – Characteristics – Strategic Planning – meaning, definition and process.

UNIT-III: [15 Hrs]

Environmental scanning and analysis - international, external, internal analysis - Michael Porter's Five Forces Model - SWOC analysis.

UNIT-IV: [15 Hrs]

Generic competitive strategies – integration strategies – outsourcing strategies – offensive and defensive strategies.

UNIT-V: [15 Hrs]

Strategic alliances - collaborative partnerships – merger - acquisition – diversifications.

TEXT BOOK:

1. UpendraKachru, Strategic Management: Concepts and Cases, Excel Books, New Delhi.

- 1. Vipin Gupta, Kamala Gollakota, R. Srinivasan, Business policy and strategic management concept and application, Oxford University Press, Chennai.
- 2. SukulLomesh, P.K.P.K. Mishra, Business policy and Strategic Management, Tata McGraw Hill, New Delhi.

III- BBA (CA)		17EBB63B
SEMESTER -VI	INDUSTRIAL RELATIONS	HRS/WK - 6
DSE – 4		CREDIT - 4

OBJECTIVES:

- To provide an exposure of theories, techniques and approaches to manage industrial relations.
- To provide an exposure to the management students who intend to take up HRM & IT as their vocation.

UNIT-I: [15 Hrs]

Introduction - Concept and Determinants of Industrial Relations – Industrial Relations in India – Managing IR Changes – IR and Productivity – Technology and IR –Indian Culture & IR.

UNIT-II: [15 Hrs]

Trade Unions – Purpose, Functions and Structure of Trade Unions – Trade Union Legislation – Multiplicity of Trade Unions –Social Responsibility of Trade Unions - Welfare and Productivity

UNIT-III: [15 Hrs]

Employee Counselling – Types, Methods, Content, Problems, Consultative Bodies (Bipartite, Tripartite) and IR Strategies – A Discussion – Worker Development & Worker participation.

UNIT-IV: [15 Hrs]

Discipline and Grievance Redressal Machinery – Purposes and Procedures of Disciplinary Action – Grievance Redressal Procedures – Conciliation – Arbitration and Adjudication .

UNIT-V: [15 Hrs]

Collective Bargaining(Perspective, Bargaining Structure, Procedure and Machinery for Collective Bargaining) – The Bargaining Process – Strengths and Skills.

TEXT BOOKS:

- 1. Arun Monappa: INDUSTRIAL RELATIONS; Tata McGraw Hill Publishing Company Ltd.
- 2. Pramod Verma: MANAGEMENT OF INDUSTRIAL RELATIONS READING AND CASES; Oxford and IBH Publication.

- 1. T.N. Bhagoliwala: ECONOMIC OF LABOR AND SOCIAL WELFARE.
- 2. Relevant Reports of Government of India such as REPORT OF NATIONAL COMMISSION LABOR FIVE YEAR PLANS.
- 3. B.O. Sharma: ART OF CONCILIATION AND INDUSTRIAL UNREST; Labor Consultancy Bureau, Bombay, 1985.
- 4. Journals: INDIAN LABOR JOURNAL and INDIAN JOURNAL OF INDUSTRIAL RELATIONS.

YEAR – III		CODE: 17JBB64A	
SEMESTER -VI	PROJECT WORK	HRS/WK – 6	
CORE - 13		CREDIT - 5	1

PROJECT TEMPLATE

- Introduction
- 1. Industry profile
- 2. Company Profile
- Review of Literature
- Design of the study
- 1. Statement of the problem
- 2. Need for the study
- 3. Objectives of the study
- 4. Hypothesis of the study
- 5. Methodology of the study
- 6. Limitations of the study
- Analysis and Interpretation
- Findings, Suggestions and Conclusion
- Bibliography

EXAMINATION PATTERN

Internal Examination – 40 Marks

External Examination - 60 Marks

Mode of Examination: Viva-Voce

YEAR - III		CODE – 17EBB64B
SEMESTER – VI	ENTREPRENEURIAL DEVELOPMENT	HOURS / WEEK – 6
CORE THEORY -10		CREDIT - 4

Unit-I Entrepreneurial Development

The evolution of the concept of entrepreneurship - John Kao's Model on Entrepreneurship Idea Generation - Identifying opportunities and Evaluation - Building the Team - Financing entrepreneurial ventures - Managing growth- Valuation of a new company - Harvesting and Exit Strategies.

Unit-II Entrepreneurial Creativity and Innovation

Stimulating Creativity - Organisational actions that enhance/hinder creativity - Managerial Responsibilities - Creative Teams - Sources of Innovation in Business - Managing Organizations for Innovation and Positive Creativity.

Unit- III Social Entrepreneurship

Introduction to Social Entrepreneurship - Characteristics and Role of Social Entrepreneurs Innovation and Entrepreneurship in a Social Context - Start-Up - Early Stage Venture Issues - Creating and Sustaining a Non-profits Organization - financing and risks - Business Strategies and Scaling up.

Unit- IV Family Business and Entrepreneurship

The Entrepreneur - Role and personality - Family Business: Concept, structure and kinds of family firms - Culture and evolution of family firm - Managing Business - family and shareholder relationships - Conflict and conflict resolution in family firms - Managing leadership - succession and continuity - women's issues in the family business - Encouraging change in the family business system.

Unit- V Financing the Entrepreneurial Business

Arrangement of funds - Traditional sources of financing - Loan syndication - Consortium Finance - role played by commercial banks - appraisal of loan applications by financial institutions - Venture capital - Crowd funding

Text book

- 1. Dr. C. B. Gupta & Dr. N.P Srinivasan, Entrepreneurial Development, Sultan Chand & Sons Publication, 2020 edition.
- 2. Holt, D. H. (2004). Entrepreneurship new venture creation. New Delhi: Prentice Hall of India.

Reference Books

- Dr. Vasant Desai, Dynamics of Entrepreneurial Development and Management, Sixth Edition- 2011, Himalaya Publishing House.
- Dr.S.S.Khanka, Entrepreneurial Development, Fourth Edition, 2006, S.Chand And Company Limited.

YEAR - II	
SEMESTER – IV	
GENERIC	
ELECTIVE-2	

ORGANIZATIONAL BEHAVIOUR (offered by Department of Commerce) From 2019 batch onwards

CODE – 19GBB42
HOURS / WEEK – 5
CREDIT - 4

Unit 1: INTRODUCTION

(15Hrs.)

Organizational behavior (OB) – Features – Scope – Fundamental Concepts of OB – Challenges and Career Development for OB – Contributing disciplines to the OB.

UNIT II: INDIVIDUAL AND GROUP BEHAVIOUR:

(20Hrs.)

Individual Behavior – Personality Determinants – Big five Personality factors – Learning Theories. The Perpetual Process – Factors influencing perception – Internal & External Attitudes and Behavior – Attitude Formation and Attitude Change. Group Behavior – Fundamentals of Groups – Stages of Development – Important Factors influencing Team Effectiveness – Cohesiveness – Norms – Decision Making.

UNIT III: MOTIVATION AND MORALE

(15Hrs.)

Motivation – Motivational Processes – Theories of Motivation (Maslow, Herzberg, McClelland and Vroom) – Learning and Reinforcement Theory. Morale – Factors influencing Morale.

UNIT IV: ORGANISATIONAL POWER AND POLITICS

(15Hrs.)

Power and Politics: Power bases – dependency – Individual versus Organizational Power – political process in Organization – factors contributing – techniques of organizational politics - managing political behavior.

UNIT V: ORGANISATIONAL CULTURE AND CONFLICT

(15Hrs.)

Organizational Culture – Concepts – Forming a Culture – Sustaining a Culture – Changing a Culture – Conflict – Transition in Conflict Thought – Functional and Dysfunctional Conflict – Process of Conflict – Managing Conflict.

TEXT BOOK

1. Aswathappa: Organizational behavior, Himalaya publisher

REFERENCE BOOKS:

- 1. Hellriegel: Organizational behavior, 10e, Thomason 2006
- 2. Robins P. Stephen & Judge: Organizational Behavior, 12/e PHI, New Delhi 2007
- 3. Daft: Organizational theory and design, Thomson 2005
- 4. Fred luthans: Organizational Behavior, Me Graw Hill, New Delhi
- 5. Nelson: Organizational Behavior, 3e, Thomson 2006

YEAR - III		CODE – 19BB503
SEMESTER – V	LEGAL ASPECTS OF BUSINESS	HOURS / WEEK – 5
CORE THEORY – 11		CREDIT - 5

Unit - I Introduction [15 Hours]

Administration of Company Law [including National Company Law Tribunal (NCLT), National Company Law Appellate Tribunal (NCLAT), Special Courts]; Characteristics of a company; lifting of corporate veil; types of companies including one-person company, small company and dormant company; association not for profit; formation of company, on-line filing of documents, promoters, their legal position, pre-incorporation contract; on-line registration of a company.

Unit - 2 Documents [15 Hours]

Memorandum of association, Articles of association, Doctrine of constructive notice and indoor management prospectus-shelf and red herring prospectus, Misstatement in prospectus, GDR; Book building; Issue, allotment and forfeiture of share, Transmission of shares, Buyback and provisions regarding buyback; Issue of bonus shares.

Unit - 3 Management [15 Hours]

Classification of directors, women directors, independent director, small shareholder's director; Disqualifications, director identity number (DIN); Appointment; Legal positions, powers and duties; removal of directors; Key managerial personnel, managing director, manager; Meetings of shareholders and board; Types of meeting, convening and conduct of meetings, postal ballot, meeting through video conferencing, e-voting; Committees of Board of Directors - Audit Committee, Nomination and Remuneration Committee, Stakeholders Relationship Committee, Corporate Social Responsibility Committee

Unit - IV Contract Act [15 Hours]

Law –meaning and definition-need- Indian contract act1872-meaning and nature of contract-essential classification of contracts- offer and acceptance- capacities of contract. Free Consent – Consideration – Lawful Object - Agreement declared void - Performance of Contract – Quasi Contract- -Discharge of Contracts- Remedies for Breach of Contract.

Unit - V Special Contract

[15 Hours]

An Overview of Special Contract – Indemnity & Guarantee – Meaning & Definitions – Essentials – Rights of indemnity holder and indemnifier – Differences between Contract of Indemnity & Guarantee- Rights of surety – Surety's liability- **Bailment** - Meaning & Definitions–Essentials–Rights and duties of bailor & bailee – **Pledge** - Meaning & Definitions– Essentials–Rights and duties of pawnor and pawnee.

Text Books:

- 1. Business Law, N.D.kapoor, Sultan Chand, 3rd edition, New Delhi, 1999.
- 2. Business Law, R.S.N.PillaiBagavathi, Chand& co, 1st edition, New Delhi, 2000.
- 3. Business Law, P.C. Tulsian, Tata MC Grawell Hill, 2nd edition, New Delhi, 2002.

Reference Books:

- 1. Legal Aspects of Business, P.saravanavel & S. Sumathi, Himalaya publication, 1st edition, New Delhi, 2005.
- 2. Business Law ,M.R. Sreenivasan, Margham publication ,1st edition, Chennai, 2006.

- 3. Legal Aspects of Business, Akhilashware Pathek, Tata Mc-GrawHill, 3rd edition, New Delhi 2005.
- 4. Business Law –Bulchandhani K.P, HPH, 2nd edition, New Delhi, 2001.
- 5. Business Law, M.C. Kuchal, Vikas Publication, 4th edition, New Delhi, 2005.

III - BBA (CA)		19EBB51A
SEMESTER -V		HRS/WK - 6
DISCIPLINE	INVESTMENT MANAGEMENT	
SPECIFIC ELECTIVE – 1		CREDIT - 4

Objectives: To enable the students to apply various tools and techniques of Investment and risk management. And to provide knowledge on various investment avenues that benefits the individual and nation.

UNIT-I Introduction to Investment

(15 Hrs.)

Investment Meaning- Investment Vs. Speculation- Investment Vs Gambling- Important factors favorable for Investment Program- Stages in Investment - Investors Classification

UNIT - II. Security Investment

(15 Hrs.)

Meaning- Bonds- Preference Shares- Equity shares- Derivatives- Options- Swaps- Futures-Mutual funds

UNIT - III Non Security Investment

(15 Hrs.)

Meaning- Government Securities- Life Insurance- UTI- Commercial banks- Provident fund-Postoffice schemes- National Savings Schemes- Fixed Deposit Schemes.

UNIT -IV Risk and Return

(15 Hrs.)

Meaning- Historical and Expected return- Types of risk- Measurement of risk

UNIT -V Fundamental and Technical Analysis

(15 Hrs.)

Meaning- Economy, Industry and Company Specific analysis- Tools for technical analysis- Charts, Support and Resistant level analysis.

TEXT BOOKS

- 1. Investment Management Preeti Singh, Himalaya Publishing House. New Delhi. 2014
- 2. Prasanna Chandra, (2009), Investment Analysis and Portfolio Management, Tata McGraw –Hill Publishing Company Limited, New Delhi.

REFERENCE BOOKS

- 1. Natarajan L, (2009), Investment Management Security Analysis and Portfolio Management, Margham Publication, Chennai.
- 2. Avadhani VA, (2008), Investment and Securities Market in India, Himalaya Publishing House, Mumbai.
- 3. Bhalla VK, (2009), Investment Management, Security Analysis and Portfolio Management, S. Chand and Company Ltd, New Delhi.
- 4. Ranganathan and Madhumita, Investment Management -19th edition-Margham publications
- 5. Gurusamy Investment Management Security Analysis and Portfolio -11th edition Aphpublication

YEAR - III		CODE – 19BB603
SEMESTER – VI	STRATEGIC MANAGEMENT	HOURS / WEEK – 6
DISCIPLINE SPECIFIC	STRATEGIC MANAGEMENT	CREDIT - 4
ELECTIVE -4		CREDII - 4

Unit - I [15 Hrs]

Introduction : Strategic management – definition - Conceptual evolution of strategies – need, importance, scope of strategic management –risks of strategic management – Strategic decision making process.

Unit - II [15 Hrs]

Mission – Vision – Goals – Objectives - Policies and Strategies – Characteristics – Strategic Planning – meaning, definition and process.

Unit – III [15 Hrs]

Environmental scanning and analysis - international, external, internal analysis - Michael Porter's Five Forces Model - SWOC analysis.

Unit - IV [15 Hrs]

Generic competitive strategies – integration strategies – outsourcing strategies – offensive and defensive strategies.

Unit - V: [15 Hrs]

Strategic alliances - collaborative partnerships - merger - acquisition - diversifications strategies.

TEXT BOOK:

1. Upendra Kachru, Strategic Management: Concepts and Cases, Excel Books, New Delhi.

REFERENCE BOOKS:

- 1. Vipin Gupta, Kamala Gollakota, R. Srinivasan, Business policy and strategic management concept and application, Oxford University Press, Chennai.
- 2. Sukul Lomesh, P.K.P.K. Mishra, Business policy and Strategic Management, Tata Mc Graw Hill, New Delhi.

YEAR - III		CODE – 19EBB63A
SEMESTER – VI	FINANCIAL AND CAPITAL	HOURS / WEEK – 6
DISCIPLINE SPECIFIC	MARKETS	CREDIT - 4
ELECTIVE -3		CREDII - 4

Unit: 1 Introduction Indian Financial Market

(15 hours)

Indian Financial System – Overview- Significance – Indian Financial Market And International Financial Market – Financial Institution – Financial Services – Meaning - Functions - Primary Market – Secondary Market – Difference Between Primary Market And Secondary Market .

Unit: 2 Capital Market

(15 hours)

Capital Market – Importance – Classification – Primary Market (New Issue Market) – IPO - Advantages – Capital Market Instrument - Equity Shares – Preference Share – Debentures – Derivatives - Functions Of New Issue Market – Offer For Sale – Private Placement – Rights Issue – Bonus Issue.

Unit: 3 Secondary Market

(15 hours)

Secondary Market – Importance Of Secondary Market – Factors Influence Of Secondary Market – Stock Exchange – Need And Function of Stock Exchanges –OTCE - Broker – Sub Broker – Trading And Clear Members - Foreign Brokers – Jobbers – Market Makers.

Unit 4: Money Market

(15 hours)

Money Market – Concepts –Features of Money Market – Structure of Money Market - Difference between Capital And Money Market - Money Market Instruments – Participant In Money Market.

Unit 5: SEBI (15 hours)

Securities Exchange Board of India – Importance, Functions and Departments of SEBI - Regulations - SEBI Power and Guidelines – Securities Contract Regulation Act.

TEXT BOOKS:

- 3 Siddhartha Sankar Saha, Indian Financial systems: Financial markets institutions and services, McGraw-Hill, 2^{nd} Edition (2018)
- **4** Frederic S Mishkin, Economics of money and Banking; Pearson India, 11th Edition (2019)

REFERENCE BOOKS:

- 1. Financial Services, M.Y.Khan, McGraw-Hill, 7th edition (2013)
- 2. Financial Services B.Santhanam, Margham publications (2016)
- 3. Peter S. Rose, Money and Capital Markets: Financial Institutions and instruments in a global market place, Irwin/ McGraw-Hill (2003)

YEAR – I		CODE-19BB102		
SEMESTER – I	FUNDAMENTALS OF INFORMATION	HRS/WK – 6		
CORE – 2	TECHNOLOGY	CREDIT – 4		

Objective:

To enable the students understand the basic concepts of information technology.

Unit-I Data and Information

(20 Hrs)

Data and Information- Introduction-Types of Data-Simple Model of a Computer-Data Processing using a Computer-Desktop Computer. Acquiring Text data-Acquiring Image Data- Acquiring Audio Data-Acquiring video Data.

Unit-II Data Storage (15 Hrs)

Data Storage - Introduction-Storage Cell-Physical Device used as Storage Cells-Random Access Memory-read Only Memory-Secondary Storage-CDROM-Archival store.

Unit-III Central Processing Unit

(15 Hrs)

Central Processing Unit - Introduction-Structure of a CPU-Specifications of CPU-Interconnections of CPU with memory and I/O Unit-Embedded Processors.

Unit-IV Computer Networks

(20 Hrs)

Computer Networks - Introduction- Local Area Network-Applications of LAN-Wide Area Network-Internet-Naming Computers Connected to Internet-Future of Internet Technology.

Unit-V Output Devices

(20 Hrs)

Output Devices - Introduction-Video display Devices-Touch Screen Display-E-Ink Display- Printers-Audio Output. Computer Software - Introduction-Operating system-Programming Languages-Classification of Programming Languages based on applications

Text Book

V.Rajaraman-Introduction to Information Technology-Second Edition-PHI Learning Private Limited-Delhi-2013.

Reference Books

- 1. James A. Senn -Information Technology: Principles, Practices, and Opportunities PrenticeHall publication January 2004.
- 2. Alexis Leon, Mathews Leon Fundamentals Of Information Technology -Leon Vikas Publishing house pvt ltd 1999

YEAR - II		CODE - 19AOMD31
SEMESTER - III	MULTIMEDIA AND DESIGN	HOURS / WEEK - 3
NME		CREDIT - 2

Objective:

To enable the students to acquire knowledge on Multimedia and Photoshop.

UNIT I: Introduction to Multimedia:

[9 Hrs]

Introduction to making Multimedia- Multimedia Skills and training- Text: Using text in Multimedia, Computer and Text- Font Editing and Design Tools- Hypermedia and Hypertext.

UNIT II: Hardware, Software and Multimedia Authoring Tools:

[9 Hrs]

Multimedia Hardware: Macintosh and Windows production platforms.

UNIT-III: Hardware Peripherals:

[9 Hrs]

Memory and Storage Devices, Input Devices, Output Devices, Communication Devices, Basic Software Tools.

UNIT-IV: Photoshop

[9 Hrs]

Create animated buttons which is used for web design using Adobe Photoshop-Create image morphing using adobe Photoshop.

UNIT-V: Photoshop

[9 Hrs]

To perform image editing using basic tool, masking effect and rendering effects using Photoshop. Create image morphing using adobe Photoshop.

Text Books:

- 1. Multimedia Making it Work TayVaughan, McGrawHill Publication
- **2.** Adobe Photoshop- Eileen Mullin Muska & Lipman/Premier-Trade; 1 edition (April 1, 2002)

Reference Book:

1. John F.Koegel Buford, Multimedia systems, Pearson Education

II -BBM		CODE -
SEMESTER -IV	MARKETING MANAGEMENT	HRS/WK -5
Generic Elective – II		CREDIT - 4

Objectives

To enable the students to understand the elements of Marketing Mix and bases for Market segmentation and to know the stages of Product Life Cycle

UNIT I- INTRODUCTION

(15 Hrs)

Market- Meaning- Definition- Classification of markets. Marketing – Meaning – Definition-Evolution – Approaches - Modern marketing concepts - Marketing Mix with Extended 7Ps and 10 Ps-- Meaning-Concepts - Role of Marketing in Economic Development-Market Segmentation-Definition –Requirements –Bases for Market Segmentation.

UNIT II- PRODUCT (15 Hrs)

Meaning- Features-Classification of products- Product Mix- Product Innovation-New Product Development-Product Life Cycle- Branding- Meaning- Advantages and Limitations - Packaging- Meaning- Kinds- Labeling Meaning-Advantages and Limitation.

UNIT III- PRICING (15 Hrs)

Price – Meaning - Pricing- Importance - Objectives- Factors affecting pricing decisions Pricing Policies- Procedure for price determination- Kinds of Pricing

UNIT IV- DISTRIBUTION CHANNELS

(15 Hrs)

Meaning-Importance-Marketing and Distribution- Middlemen in distribution - Function and Kinds of Middlemen -- Agents and Merchant Middlemen-Wholesalers -- Types -- Services rendered by wholesalers - Retailers- Types -- Requisites -- Services rendered by retailers- Introduction to Supply Chain and Logistic Management -- Introduction to Networking Marketing and Niche Marketing.

UNIT V - PROMOTION

(15 Hrs)

Sales Promotion - Personal Selling - Meaning - Purpose - Types - Advantages - Limitations - Factors to be considered on Personal Selling. Advertising- Meaning and definition- Medias-Advantages- Limitations - Advertising copy - Definition - Elements of an Advertisement copy - Introduction to Cinema Advertising, SocialMedia Advertising, Web Advertising, and Mobile Advertising.

TEXT BOOKS

- 1.R S N Pillai&Bagavathi, Modern Marketing principles& practices
 - S. Chand& co ltd, New Delhi, 2004.
- 2.DR N Rajan Nair & Sanjith R Nair, MARKETING, New Delhi, 2002.

QUESTION PAPER PATTERN:

Time: 3 Hours Marks: 75

- 1. Part A = 10x2 = 20 Marks All the Questions are to be Answered.
- 2. Part -B = 5x5 = 25 Marks Five Questions with Internal Choice.
- 3. Part -C = 3x10 = 30 Marks Three Out of Five Open Choice.

Note: Questions should be asked from all the units with equal weightage.

Problem Oriented paper

Time: 3 Hours Marks: 75

Theory: 20% Problems: 80%

QUESTION PAPER PATTERN

- 1) Part A = 10x2 = 20 Marks All the Questions are to be Answered.
- 2) Part -B = 5x5 = 25 Marks Five out of Seven Open Choice.
- 3) Part -C = 3x10 = 30 Marks Three Out of Five Open Choice.

Note: Questions should be asked from all Units. Equal importance should be given to all Units.

MASTER OF SOCIAL WORK

MSW DEGREE COURSE UNDER CBCS

(With effect from 2019-2020)

BOARD OF STUDIES FOR THE ACADEMIC YEAR 2019 – 20 (ODD SEMESTER)

Meeting Minutes

The meeting started at 10.20 am on 9th March, 2019 at the Department of Social Work, St. Joseph's College of Arts and Science (Autonomous), Cuddalore-607001.

Members Presented:

- 1. Mr. J. Durai Raj
 - Head, Department of Social Work,
 - St. Joseph's College of Arts and Science (Autonomous), Cuddalore-1.
- 2. Dr. J. M. Arul Kamaraj

Assistant Professor, Department of Social Work, Loyola College, Chennai – 34.

3. Dr. K. Anbu

Assistant Professor, Department of Social Work, Pondicherry Central University, Puducherry.

4. Mr. T. Shankar

Senior Medical Social Worker,
Department of Medical Oncology,
JIPMER, Puducherry.

5. Mrs. S. Vanathi

Assistant Professor, Department of Social Work, St. Joseph's College of Arts and Science (Autonomous), Cuddalore-1.

6. Mrs. M. Perkish Salomina

Assistant Professor, Department of Social Work,

St. Joseph's College of Arts and Science (Autonomous), Cuddalore-1.

Syllabus has been placed before the board. The board thoroughly revised the curriculum and suggested and recommended the following

- 1. The board suggested to revise the credits for the entire Core, Elective papers in the curriculum.
- 2. The board recommended including Self Study Papers (One out of Six) with two credits to promote the concept of Self Study among the Advanced Learners.
- 3. The board has suggested changing the nomenclature of the Value Added course paper as "NGO MANAGEMENT".
- 4. It was also recommended to include paper "Life Skills for Social Workers" paper in the curriculum with two credits.
- 5. The board suggested making Revision of Units and Reference of the most of the Papers in the Curriculum.
- 6. The paper title as "Psychology for Social Workers" has been changed as "Sociology and Psychology Foundation for Social Work" and "Project Cycle Management" has been changed as "Project Management" and paper titled as "Strategies for Community Development" has been changed as "Community Development Management".
- 7. The board has also suggested to include paper ""National Social Work Perspectives Academic Visit" with two credits and allot two credits for "Rural Social Work Perspective (Rural Camp)" to provide more practical exposure in the field.

YEAR – I	INTRODUCTION TO SOCIAL	CODE: 19PSW11
SEMESTER - I	WORK PROFESSION	HRS/WEEK: 5
CORE – I		CREDIT: 4

Course Outcomes:

After completing this course, students will:

CO1: know the history, philosophy, and fields of Social Work.

CO2: understand theories, approaches and models of Social Work in practice field.

CO3: Develop attitude towards different dimensions of social problems.

CO4: Discover oneself as professional Social Worker.

CO5: Be relevant to the skills of Social Work in the major fields of Social Work.

SEMESTER I		C	OURSE C	ODE:		TITLE OF THE PAPER: INTRODUCTION TO SOCIAL WORK						
			19PSW	11			PROFESSION				HOURS:5	CREDITS:4
COURSE OUTCOMES	PROGRAMME OUTCOMES (PO)				PROGRAMME SPECIFIC OUTCOMES (PSO)					MEAN SCORE OF		
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S	
CO1	5	4	4	3	5	5	4	3	5	5	4	1.3
CO2	5	3	5	4	5	5	5	3	5	5	4	1.5
CO3	5	3	4	4	5	5	5	4	5	5	4	1.5
CO4	5	4	5	4	5	5	5	4	4	5	4	1.6
CO5	5	3	5	4	5	5	5	4	5	5	4	1.6
	Mean Overall Score						4	1.5				

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Social Work: Concept, Definition and related Concepts: Social Service, Social Policy, Social Legislation, Social Transformation, Social Welfare, Social Security, Social Defence, Social Justice and Social Development. Social Work Theories: Role Theory, Problem Solving and Gestalt Theory.

Unit II

Evolution of Social Work in UK and USA. Social Work in India: Ancient period: Vedic, Vedantic and non Vedic ideologies. Medieval period: Zoroastrianism and

Islam in India - Mysticism of Bhakti and Sufi Movements - Sikhism. Modern period: Christianity in India - Hindu Reform Movements - Dalit Movements - Gandhian ideology and Sarvoday movement.

Unit III

Social Work as a Profession: Objectives, Philosophy, Principles, Methods, Values and Ethics. Professional Social Work and Voluntary Social Work. Interdisciplinary Nature of Social Work & its Relationship with Other Professions. Professional Associations, Problems faced by the Social Work Profession in India.

Unit IV

Social Work Education in India - Focus, Nature and Content of Social Work Education. Field Work in Social Work Profession: Objectives, Need and Importance - Significance of Field Work Supervision. Problems and Prospects of Social work profession in India. Role of Voluntary Organizations and Government the Government in promoting Social work profession in India. National and International Professional Associations. Social Work Profession and Education in Global perspective.

Unit V

Fields of Social Work Practice: Family and Child Welfare – Educational Settings - Medical and Psychiatric Social Work – Corporate Settings - Correctional Social Work - Urban, Rural and Tribal Community Development - Ecology and Environment - Disaster or Crisis Management and Rehabilitation - Human Rights - Social Work with Marginalized and Vulnerable sections - Geriatric Social Work.

TEXT BOOK:

- 1. Theory and Practice of Community Social Work, Samuel H Taylor, New Delhi, 2013
- 2. Techniques and Guidance for Social Work Practice, Ninth Edition, Bradford W. Sheafor Charles J. Horejsi, Eastern Economy Edition, 2011
- 3. Social Work Philosophy and Methods, P. D Mishra, Inter India Publications.
- 4. Social Work an Integrated Approach, Sanjay Bhattacharya, 2006. New Delhi: Deep and Deep Publications.
- 5. UGC NET Tutor Social Work, Arihant Publications New Delhi,2014

REFERENCES

- 1. Bhattacharya, Sanjay. 2013. Social Work Interventions and Management. New Delhi: Deep and Deep Publications.
- 2. Bogo, Marion. 2007. Social Work Practice Concepts, Processes & Interviewing. Jaipur: Rawat Publications.
- 3. Chowdhry, D.P. 2001. Introduction to Social Work. New Delhi: Atma Ram.
- 4. Cox, David & Manohar Pawar. 2006. International Social Work Issues, Strategies and Programs. New Deli: Vistar Publications.
- 5. Desai, Murali 2002 Ideologies and Social Work: Historical and Contemporary Analysis, Jaipur: Rawat Publication.
- 6. Dominelli, Lena. 2004. Social Work: Theory and Practice for a Changing Profession. London:Polity Press
- 7. Gilbert, Neil. et. al. 2002. An Introduction to Social Work Practice. New Jersey: Prentice Hall.
- 8. Sheldon, B., & Macdonald, G., 2010 A Textbook of Social Work, London: Routledge.
- 9. Stanley. S Social Problems in India, Allied Publishers, New Delhi 2005.

QUESTION PATTERN SECTION – A (10X2=20) Answer ALL Questions

- 1. Define Social Work
- 2. What is radical social work?
- 3. Define community organization.
- 4. List out example for right based approach in social work practice.
- 5. Define community.
- 6. Who is the mother of social case work?
- 7. List out different fields of social work.
- 8. What do you mean by charity?
- 9. Write Abbreviations: IASW, ASSWI
- 10. Mention first school of social work in India.

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Elaborate the functions of Social Work.

(or)

- b) List out the various objectives of Social Work.
- 12. a) Critically analyse any one approach of Social Work.

(or)

- b) Trace the Historical Development of Social Work in India.
- 13. a) Explain the role of Research in Social Work.

(or

- b) How do you argue Case Work as a method of Social Work?
- 14. a) Write a note on Fields of Social Work.

(or)

- b) Explain with suitable examples "the family" as a field of Social Work.
- 15. a) "Social Work education in India is a profession". Discuss.

(or)

b) Write a note on the training institutions in India.

SECTION – C (3X10=30) Answer any THREE Questions

- 16 Discuss the professional ethics of Social Work in determining it as a profession.
- 17. What do you mean by Programme Planning?
- 18. How to organise a successful programme?
- 19. Analyse the development of Social Work in USA & UK.
- 20. List out the functions of ASSWI & NASW. 20. How do you practice Social Work in a Correctional Institution?

YEAR - I		CODE: 19PSW12
SEMESTER - I	SOCIAL CASE WORK	HRS/WEEK: 5
CORE - II		CREDIT: 4

Course Outcome:

After completing this course, students will:

CO1: Acquire knowledge on the foundation of case work

CO2: Diagnose the problems of individuals and treat them effectively

CO3: Gain knowledge on the models and approaches of Social Case

Work and its application

CO4: Use various tools and techniques to help the individuals **CO5:** Apply the Knowledge of case work in different settings

SEMESTER I		COURSE CODE: 19PSW12					LE OF THE P	RK	HOURS:5	CREDITS:4			
COURSE OUTCOMES		PROGRAMME OUTCOMES (PO)					PROGRAMN	MEAN SCORE OF					
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	5	3	5	4	5	5	5	3	4	4	4.3		
CO2	5	3	5	4	4	5	5	4	5	5	4	1.5	
CO3	4	3	5	4	5	5	5	4	4	4	4	1.3	
CO4	5	4	5	5	5	4	5	5	4	4	4	1.6	
CO5	5	4	5	4	5	5	5	3	5	5	4	1.6	
		Mean Overall Score								4	.46		

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Case Work: Meaning, Definition, Historical Development; Scope and limitations, its importance and Relationship with other methods of Social Work. Values - Worth and Dignity of Clients; Basic components of Social Work – Person, Problem, Place and Process and Principles of Social Case Work.

Unit II

Case worker-client Relationship: Meaning and its importance. Characteristics of Professional relationship: empathy, Sympathy, Transference, Counter Transference, Resistance, Sustaining the relationship, Genuineness, Unconditional Positive regard and Self Disclosure.

Unit III

Case Work Process: Intake and Exploration: Analysis and assessment – Psychosocial Diagnosis, Formulation of goals, Prioritization of Needs, Development of Action Plan, Use of Contracts; Intervention: Counseling and use of Supportive and Reflective Techniques of Direct Influence; Importance of involvement Collateral Contacts in the entire Process.

Unit IV

Approaches to practice: Psychosocial, Functional, Problem Solving, Crisis intervention; Electic Model for Practice. Case work Interviewing: Principles, Techniques and Skills. Casework Recording: Types of Records, Record Maintenance. Recent Techniques in Social Case Work Practice: Indigenous Social Case Work practices.

Unit V

Practice of Social Casework: Role and functions of Social caseworker in various settings- Medical and Psychiatric Setting - Health Care Centers, Mental Health - De-Addiction & Community Based Rehabilitation, Family and Child Welfare, Educational Setting, Correctional Setting - Homes or Special Schools for delinquents, Observation Homes, Prisons, Corporate Setting, Community Welfare setting. Palliative & Geriatric Care.

TEXT BOOK:

- 1. Louise C. Johnson, Stephen J. Yanca, 2011, Social Work Practice A General Approach, PHI Learning Private Limited, New Delhi.
- 2. P. D Mishra, 2001, Social Work Philosophy and Methods, Inter India Publications.

- 3. Sanjay Bhattacharya, 2003, Social Work An Integrated Approach, Deep & Deep Publications Pvt. Ltd.
- 4. R. K. Upadhyay, 2003, Social Case Work a Therapeutic Approach, Rawat Publications New Delhi.
- 5. Techniques and Guidelines for social work practice, 9th edition, Brad ford W. sheafoe, New Delhi 2012

REFERENCES

- 1. Hamilton Gordon (2013). Theory and Practice of Social Case Work -2^{nd} Edition, Rawat Publications, India.
- 2. Keats, Daphne (2002) Interviewing A Practical Guide for Students and Professionals, New Delhi: Viva Books Pvt.Ltd.
- 3. Maryellen,(1999), Short-Term Treatment and Social Work Practice: An Integrative Perspective, Free Press, US.
- 4. Mathew, Grace, (1992), An Introduction of Social Case Work, TISS, Mumbai, India Pearlman.
- 5. Payne Malcolm, (2005): Modern social work theory, 3rd edition, Palgrave macmillian, Newyork.
- 6. Perlman HH (2011), Social Case Work: A Problem Solving Process, Rawat Publications, India.
- 7. Robert W, Roberts Robert H. Nee, 2000 Theories of Social Casework, Unity of Chicago Press, Chicago.
- 8. Upadhyay, R.K, 2003 Social Casework: A Therapeutic Approach, Rawat Publications, India.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. Define Social Case Work.
- 2. Who is a client?
- 3. What is Empathy?
- 4. What do you meant by Genuineness?
- 5. What is catharsis?
- 6. Explain confidentiality?
- 7. Mention any two uses of yoga.
- 8. What is hypnotism?
- 9. Mention any two roles of social workers in Industries.
- 10. What is meant by stigmatizations?

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Explain the basic components of Social Work.

(or)

- b) Discuss the Case Work practice in India.
- 12. a) Distinguish transference and counter transference with suitable examples.

(or)

- b) Write a short note on unconditional positive regard.
- 13. a) What is collateral contacts?

(or)

- b) Briefly discuss psychosocial diagnosis.
- 14. a) What are the benefits of Meditation?

(or)

- b) Expalin the purpose of recording in case work?
- 15. a) Highlight case work practice in HIV/AIDS ward.

(or)

b) Discuss in detail the conflicts and dilemmas in working with family.

SECTION – C (3X10=30) Answer any THREE Questions

- 16. Discuss the basic assumptions of social case work.
- 17. Highlight the importance of caseworker client relationship.
- 18. Describe case work process.
- 19. Briefly explain the skills required for effective Case Work practice.
- 20. Enumerate how social case work method could be practiced in schools.

YEAR – I		CODE: 19PSW13
SEMESTER – I	SOCIAL GROUP WORK	HRS/WEEK: 5
CORE – III		CREDIT: 4

Course Outcome:

After completing this course, students will:

CO1: Develop theoretical understanding on Group Work as a method of Social Work

CO2: Be exposed to the theories, models and approaches of Social Group Work

CO3: Demonstrate ethical standards in working with the group

CO4: Practice Social Group Work as a method of Social Work in the field

CO5: Utilize programme media in Social Work practice

SEMESTER I		C	OURSE CO	ODE:		TITI	E OF THE PA	PER: SOCIAL	GROUP WO	RK		
			19PSW1	L 3							HOURS:5	CREDITS:4
COURSE OUTCOMES		PROGRAMME OUTCOMES (PO)					PROGRAMN	MEAN SCORE OF				
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	co's	
CO1	5	4	3	5	4	4	5	3	5	5	4.3	
CO2	4	3	4	4	5	5	5	3	5	5	4	1.3
CO3	5	4	5	4	5	5	5	3	5	5	4	1.6
CO4	5	4	4	5	5	5	4	3	5	4	4.4	
CO5	4	4 4 5 5 5					5	4	5	5	4	1.7
	Mean Overall Score							4.46				

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Social Group: Definition, Characteristics, Types of Groups and Functions of a group; Stages of Group development, Group Process: Bond, Acceptance, Isolation, Rejection, Sub-group formation, Withdrawal and control.

Unit II

Group Work: Meaning, Definition, Purpose and Models of Group Work; Historical Development of Group Work; Principles of Group Work; Group Work

Process: Intake, Study, Diagnosis, Treatment, Evaluation and Termination or follow up work. Difference between Group Process & Group Work Process. Group Work and Therapeutic Approach: Behavior Modification Therapy, Rational Emotive Therapy, Family Therapy. Assertive behaviour. Etiquettes and Manners

Unit III

Programme Planning: Meaning and Definition of Programme, Principles and Process of Programme Planning and the place agency in programme planning; Programme Laboratory — Values and techniques: Games, Singing, Dancing, Drama & Street play, Puppetry, Mime, Group discussions, Parties, Excursion, Psychodrama, Socio-drama, role play, Brain Storming, Camping — Planning and Conducting Camps.

Unit IV

Role & Responsibilities of Group Worker & Significance of home visits and collateral contacts, Leadership: Concepts, Definition, Characteristics and functions, qualities of leader, Types and theories of leadership; Training for leadership; Sociometry and Sociogram. Group Work Supervision: Meaning, purpose, tasks, types and functions.

Unit V

Group Work Recording: Meaning, purpose, principles and Types of Recording, process and summary Records, Group Work Evaluation: Meaning and its place in Group Work, Steps in Group Work Evaluation and Criteria for good Group Work. Application of Group work method in different settings: Group Work Practice in Different settings: Institution for Children, Family Service agencies, Correctional Settings, Community Development Settings, Community Based Organisations, Educational Institutions, Corporate Organizations, Trade Unions, Clinical Settings, Mental Health Institutions, Home for Aged and others

TEXT BOOK:

- 1. Introduction to Group Work, David Capuzzi, 4th edition, New Delhi, 2017
- 2. Techniques and Guidance for Social Work Practice Ninth Edition, Bradford W. Sheafor Charles J. Horejsi, Eastern Economy Edition, 2011
- 3. Social Group Work, Theory and Practice, Prof. P. D. Misra, New Royal Book Co, Lucknow, 2008
- 4. Social Work Philosophy and Methods, P. D Mishra, Inter India Publications.

- 5. Social Work An Integrated Approach, Sanjay Bhattacharya
- 6. Introduction to group work, David Capuzzi, Rawat Publications, 2017, New Delhi
- 7. Foundation for Group Work, Douglas R. Gross, Rawat Publications, 2017, New Delhi
- 8. UGC NET Tutor Social Work, Arihant Publications New Delhi,2014

REFERENCES

- 1. Conyne K. Robert, 2013, Group Work Leadership an Introduction for Helpers (Counseling and Professional Identity), SAGE Publications, Inc. UK.
- 2. Donahue Bill and Bowman Grey, 2012, Coaching Life- Changing Small Group Leaders A Comprehensive Guide for Developing Leaders of Groups and Teams (Groups that Grow), Zondervan, US.
- 3. Gitterman Alex and Salmon Robert, 2009, Encyclopedia of Social Work with Groups, Routledge New York.
- 4. Kottler A. Jeffrey and Englar-Carlson Matt, 2009, Learning Group Leadership An Experiential Approach, SAGE Publications, Inc., California.
- 5. Lindsay Trevor and Orton Sue, 2008, Group Work Practice in Social Work, Learning Matters Ltd., New York.
- 6. Merchant M. Niloufer and Yozamp J. Carole, 2013, Groups in Community and Agency Settings (Group Work Practice Kit), SAGE Publications, Inc, California.
- 7. Shulman Lawrence, 2008, the Skills of Helping Individuals, Families, Groups, and Communities (with CD), Brooks Cole, USA.
- 8. Toseland W. Ronald, Rivas Robert F., 2014, An Introduction to Group Work Practice, Pearson Education Limited, Edinburgh Gate, Harlow, Essex CM20 2JE, England and Associated Companies Throughout the World, England.
- 9. Webb Boyd Nancy, 2011, Social Work Practice with Children and Families, A Division of Guilford Publications Inc. New York.

QUESTION PATTERN SECTION – A (10X2=20) Answer ALL Questions

- 1. What is meant by 'Group Bond'?
- 2. List out various types of groups.
- 3. Define Social Group Work.
- 4. Choose the correct option that is sequentially arranged.
 - a) Study, Intake, Diagnosis, Treatment, Termination, Evaluation
 - b) Intake, Study, Diagnosis, Treatment, Termination, Evaluation
 - c) Intake, Study, Diagnosis, Treatment, Evaluation, Termination
 - d) Evaluation, Intake, Diagnosis, Study, Treatment, Termination
- 5. What do you mean by Psychodrama?
- 6. Provide four functions of Programme Planning.
- 7. Clarify Collateral Contacts in Group Work.
- 8. State briefly about Sociometry in Group Work.
- 9. Why recording is needed while practicing Group Work?
- 10. What are the purposes of evaluation in Group Work?

SECTION - B (5X5=25) Answer ALL Questions

11. a) Describe the functions of Group.

(or)

- b) Pronounce the importance of 'Acceptance' in Group.
- 12. a) Explicate Reid's various classifications of Group Work Models.

(or)

- b) Trace the history of Group Work in India.
- 13. a) Explicate the principles of programme planning.

(or)

- b) Deliberate on the use of Programme Media.
- 14. a) Represent the skills of Group Worker in group counselling and group therapy.

(or)

- b) Reveal the skills of the Group Worker in understanding and dealingindividual behaviour.
- 15. a) Explain the principles of Group Work recording.

(or)

b) How significant are the skills of Group Worker in referral services and meetings in community settings.

SECTION -C (3X10=30)

Answer any THREE Questions

- 16. Elucidate the functional and non-functional roles of group members with relevant examples.
- 17. Describe the process of Social Group Work in line with your field knowledge.
- 18. Exemplify the effectiveness of Programme Planning / Programme Laboratory in Social Group Work. 19. Establish the functions and qualities of Group Worker as a leader with suitable illustrations.
- 20. How would you rehabilitate the inmates of a jail as a Social Worker?

YEAR – I	COMMUNITY ORGANIZATION AND	CODE: 19PSW14		
SEMESTER - I		HRS/WEEK: 5		
CORE – IV	SOCIAL ACTION	CREDIT: 4		

Course Outcome:

After completing this course, students will:

CO1: Develop theoretical understanding on Community Organisation as a method Social Work.

CO2: Be aware of theories, models and approaches of Community Organization.

CO3: Practice Community Organisation as a method of Social Work in the field of Social Work.

CO4: Extend theoretical understanding on Social Action as a method of Social Work.

CO5: Apply Social Action as a method of Social Work.

SEMESTER I		C	OURSE C	ODE:		TITLE OF T	HE PAPER: C	OMMUNITY	ORGANIZA	TION AND			
			19PSW	14			SC		HOURS:5	CREDITS:4			
COURSE	PROGRAMME OUTCOMES						PROGRAMN						
OUTCOMES		(PO)					(PSO)					MEAN SCORE OF	
(CO) PO1 PO2 PO3 PO4				PO5	PSO1	PSO2	PSO3	PSO4	PSO5	co's			
CO1	5	5	5	4	4	5	5	5	4	4	4.6		
CO2	5	5	5	4	5	5	5	5	4	5	4	1.2	
CO3	5	4	5	4	5	5	5	5	4	5	4	1.7	
CO4	5	4	5	4	5	5	5	4	4	5	4	1.6	
CO5	5	5	5	4	4	5	5	4	4	4	4	1.5	
	Mean Overall Score								4.5				

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Community: Meaning, Types and Characteristics; Community Power Structure and Minority groups. Community Dynamics: Integrative and Disintegrative Processes in the Community. Leadership: Definitions, Types and Qualities; Leadership in different types of Communities, Theories of Leadership.

Unit II

Community Organization: Concepts, Definition, Objectives, Philosophy, Approaches and Principles; Community Organization as a method of Social work; Community Welfare Councils and Community Chests. Methods of Community Organization: Planning, Education, Communication, Community Participation, Collective Decision Making, Involvement of groups and Organizations, Resource Mobilization, Co-ordination. Skills in Community organization. Awareness Creation based on Social issues.

Unit III

Phases of Community Organization: Assessment of community using PRA, Study, Assessment, Discussion, Organization, Action, Evaluation, Modification, Continuation; Community study; Community Organization in emergencies like Fire, Famine, Flood, Drought, Earthquake and War; Community Organization at Local, State and National level; Community organization in Rural, Urban, Slum and Tribal Areas.

Unit IV

Social Action: Definition, Objectives, Principles, Approaches, Methods and Strategies; Social Action as Method of Social Work; Social work and Social action. Roles and Responsibilities of Social Activist. Process of Social Action; Scope for Social Action in India.

Unit V

Social Reform and Social movements - Various contributions to the theory of Social Action: Mahatma Gandhi, Periyar, Ambethkar, Paulo Freire, Saul Alinsky, Martin Luther King, and Karl Marx. Role of Social Workers in Community Organization and Social Action.

TEXT BOOK:

- 1. Gangrade, K.D. Community Organization in India, Popular Prakasan, Bombay.
- 2. Christopher, A.J and William, Thomas, 2006, Community Organization and Social Action, Himalaya Publication House, New Delhi.
- 3. Asha Ramagonda Patil, 2013, Community Organization and Development an Indian Perspective, Eastern Economy Edition,

- Samuel H Taylor, 2013, Theory and Practice of Community Social Work, New Delhi.
- 5. W. Sheafor Charles J. Horejsi, 2011, Techniques and Guidance for Social Work Practice, Ninth Edition, Bradford Eastern Economy Edition.

REFERENCES

- 1. Beher A & Samuel J 2006 Social Watch in India: Citizens Report on Governance and Development, Pune: NCAS
- 2. Chambers Robert 2005 Ideas for Development, Earth Scan, London
- 3. Christopher, A.J and William, Thomas, 2006, Community Organization and Social Action, Himalaya Publication House, New Delhi.
- 4. Delgado, M., &Humm-Delgado, D. (2013). Assets assessments and community social work practice Chapter 9: Asset assessments and youth
- 5. Delgado, M., &Humm-Delgado, D. (2013). Assets assessments and community social work practice Chapter 10: Asset assessments and Latino communities. New York: Oxford University Press.
- 6. Homan, M.S. (2011). Theoretical frameworks for community change, pp. 34-69.
- 7. Macmillan, Wayne: Community organization for social welfare, University of Chicago press.
- 8. Murphy Mov: Social Action, Asian Publishing House, Bombay.
- 9. Skim: Bowie, P. (2010). Getting to scale: The elusive goal (Magnolia Place Community Initiative).

QUESTION PATTERN SECTION – A (10X2=20) Answer ALL Questions

- 1. What is minority group?
- 2. What is leadership?
- 3. What is Community organization?
- 4. What is Community welfare council?
- 5. What is resource mobilization?
- 6. What is social issue?
- 7. What is PRA?
- 8. What is assessment of community?
- 9. What is social action?
- 10. What is Social reform?

SECTION - B (5X5=25)

Answer ALL Questions

11. a. Explain the types of leaderships

(or)

- b. Explain the nature of community dynamics
- 12. a. Explain the objectives of community organization

(or)

- b. Explain the approaches of community organization
- 13. a. Explain the skills needed for community organization

(or)

- b. Explain the methods of increasing community participation
- 14. a. Explain the uses of PRA in rural setting

(or)

- b. Explain use of community organization during floods
- 15. a. Give details of social movements in India

(or)

b. Explain the strategies of social action

SECTION - C (3X10=30)

Answer any THREE Questions

- 16. Explain the integrative and disintegrative processes in communities.
- 17. Explain the principles of community organization.
- 18. Explain the use of community organization for community development.
- 19. Explain the phases of community organization.
- 20. Explain the principles of social action.

YEAR – I	CONCURRENT FIELD WORK	CODE: PSWF1	
SEMESTER – I		HRS/WEEK: 5	
CORE PRACTICAL – I	PRACTICUM - I	CREDIT: 4	

Course Outcome:

After completing this course, students will:

CO1: Be exposed to different fields of Social Work

CO2: Understand the role of professional Social Worker in a structured agency

CO3: Understand and reflect on diverse needs and problems of the target groups

CO4: Appraise on the theoretical framework, approaches, models and practices

CO5: Develop positive framework about the profession

SEMESTER I		CC	OURSE CO	DDE:		TITLE	OF THE PAP	ER: FIELD W	ORK PRACTI	сим			
			PSWF1								HOURS:5	CREDITS:4	
COURSE OUTCOMES		PROGRAMME OUTCOMES (PO)					PROGRAMME SPECIFIC OUTCOMES (PSO)					MEAN SCORE OF	
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	5	4	5	4	5	5	5	3	4	5	4.5		
CO2	5	4	4	3	5	5	4	3	4	4	,	4.1	
CO3	4	4	5	4	5	5	5	3	5	5	,	4.5	
CO4	5	4	5	4	5	5	4	3	5	5	,	4.5	
CO5	5	4	5	3	5	5	4	3	4	5	,	4.3	
	Mean Overall Score								4	.38			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Field Work is very important element in the curriculum of Social Work. Extension activities are being promoted to develop the community towards different aspects of development. Observation visits and Group Project on current social issues are expected be organized as the field work requirements in the first semester. To execute these extension activities towards the needy, the students of Social Work are prepared to develop their skills by observation visits to Community, Medical & Psychiatric and Industrial settings.

Field work practical components are scheduled every week equivalent to theory classes. To improve their physical fitness as well as mental capacity and to equip the students on the conceptual development of social issues, ten days street theatre training programme is being organized.

Field Work Components:

- 1. Observational Visits -The first year students during the first semester go for observational visits to various settings: Medical & Psychiatric, Rural Community Setting, Slum Visits, Industrial Setting, Correctional Setting and Tribal Setting.
- 2. Street Theatre training for a week
- 3. Group Project on Current Issues.

Every week the students write a report of their activities and submit to the concerned field work supervisor on Mondays. The supervisor conducts individual and group conference every week regularly.

At the end of the semester Viva Voce is conducted by an external examiner and marks are awarded.

The CA Mark – 40 and the SE Mark - 60. Marks Allotments

S.	Activity	Internal	External
No		Marks	Marks
1	Observation Visit, Street Theatre Training and Group	40	
	Project		
2	Presentation, Quality in Components, Communication		60
	Total	100	

YEAR – I	DUDAL COCIAL MODIC	CODE: 19PSWE1		
SEMESTER – I	RURAL SOCIAL WORK	CDEDIT . 2		
EXTENSION – I	PERSPECTIVES (RURAL CAMP)	CREDIT : 2		

Course Outcome:

After completing this course, students will:

CO1: Experience to the village setup.

CO2: Understand the social problems and attaining solution.

CO3: Set their leadership qualities.

CO4: Be experienced in organizing programme and create awareness to

the people.

CO5: Identify their ability to cope up with the society.

SEMESTER I	COURSE CODE: 19PSWE1					TITLE OF THE PAPER: RURAL SOCIAL WORK PERSPECTIVES (RURAL CAMP)					HOURS:	CREDITS:2
COURSE OUTCOMES		PROGRAMME OUTCOMES PROGRAMME SPECIFIC OUTCOMES (PSO)							MEAN SCORE OF CO'S			
(CO)	(CO) PO1 PO2 PO3 PO4		PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		US	
CO1	3	3	4	2	5	5	5	3	5	4	3.9	
CO2	4	3	4	3	4	5	5	3	4	5	4	
CO3	4	3	5	3	5	5	5	3	5	5	4	1.3
CO4	4	3	5	3	5	5	5	3	5	5	4	1.3
CO5	5	4	5	4	5	5	5	4	5	5	4	l. 7
		Mean Overall Score						4	.24			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

The main objective of the rural camp will be to enable the students experience rural life and group living. The students with the support and guidance from the faculty will involve themselves in all the planning and executing activities of the camp. This includes identification of the village, pilot visits for identification of projects in the village and liaise with various NGOs and Government officials.

The entire class will be divided into various committees to facilitate division of work and participation of each student. A camp leader elected from the student group, will co-ordinate along with the camp in-charge faculties for efficient execution of the camp. A periodic evaluation of the camp will be conducted in the department. The students are expected to document and submit a report on their experiences and learning in the Rural Camp during the Vice-voce which is conducted internally. After the Internal Viva-voce, the students are awarded with 2 credits.

Tasks during Rural Camp:

- 1. Selection of a theme for the rural camp
- 2. Identification of a suitable village-Pilot study
- 3. Formation of committees and allocating work
- 4. Planning the programmes to be executed during the camp
- 5. Implementation of the programmes

Skills Development:

Co-operating, planning, participation, adaptability, accommodating, co-ordination, organizing, networking, leadership skills, fund raising, accounting, self evaluating skills and documenting skills.

Course Outcome:

CO1: Experience to the village setup.

CO2: Understood the social problems and finding solution.

CO3: Set their leadership qualities.

CO4: Experienced in organizing programme and awareness to the

people.

CO5: Identifying their ability to cope up with the society.

YEAR – I	SOCIOLOGY AND PSYCHOLOGY	CODE: 19EPS15A
SEMESTER – I	FOUNDATION FOR SOCIAL WORK	HRS/WEEK: 4
ELECTIVE – I (A)	FOUNDATION FOR SOCIAL WORK	CREDIT: 3

Course Outcome:

After completing this course, students will:

CO1: Be exposed to the diverse Sociological theories and its role in Social Work

CO2: Demonstrate professional traits in dealing with the context of social stratification in India

CO3: Gain knowledge on the stages of human development and its influences

CO4: Adopt the effective style of learning; realize the importance of sustainable motivation

CO5: Be aware of application of Social Work knowledge to enhance the mental well being

SEMESTER I		CC	OURSE CO	DDE:		TITLE OF	THE PAPER:	SOCIOLOGY	AND PSYCI	HOLOGY		
			19EPS15	iΑ			FOUNDATI	ON FOR SOC	IAL WORK		HOURS:4	CREDITS:3
COURSE OUTCOMES		PROGRA	AMME O (PO)	UTCOME	S		PROGRAMN	IE SPECIFIC OUTCOMES (PSO) MEAN SCORE OF				
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S	
CO1	5	3	5	3	5	5	4	3	5	5		4.3
CO2	4	4	4	4	5	4	5	3	4	5		4.2
CO3	4	4	4	4	5	5	5	3	4	4		4.2
CO4	4	4	5	4	5	5	5	4	5	4		4.5
CO5	5	3	5	4	5	5	5	3	5	4		4.4
	Mean Overall Score									4	.32	

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Sociological Concepts: Society, Community, Association, Institutions, Social Group — Types and Functions; Cultural Processes: Accommodation, Acculturation, Assimilation, Diffusion, Cultural Conflict, Cohesion, Integration, Cultural Lag, Cultural Change; Social Stratification — Caste and Class System. Social Change: Urbanization, Industrialization, Modernization, Sanskritisation. Social Control and Social Deviance: Norms, Folkways, Mores, Customs.

Unit II

Social Problems in India: Poverty, Over Population, Beggary, Illiteracy, Unemployment, Under employment, Corruption, Housing and Slums, Communicable Diseases, HIV or AIDS, STD. Infidelity, Nepotism, Terrorism, Communal and Caste Issues, Honour Killing, Child Trafficking, Dowry, Mal-Nutrition, Problems of Vulnerable Groups: Women, Children, and Aged; Physically Challenged, Alcoholism and Drug Abuse, Environment Issues: Climate Change.

Unit III

Psychology: Definition, Psychological Approach to understand Human Behavior. Introduction to Human Growth and Development, Developmental Stages, Developmental tasks. The Beginning of life: Human Reproductive System: Fertilization, Delivery, Pre and Postnatal Care. Developmental Periods: Infancy, Babyhood. Childhood, Puberty Adolescence, Adulthood, Middle Age and Old Age; Physical Intellectual Emotional and Social Development.

Unit IV

Personality, Perception, Measurement of Intelligence, Self Esteem, Self Efficacy, Self Awareness through SWOT Analysis, Johari Window, Attitude, Positive Attitude, Adjustment and Maladjustment, Stress, Frustration, Conflict, Responsible Sexual Behaviour.

Unit V

Abnormal Psychology: Concepts of Normality and Abnormality. Causation of Mental Illness, Neuroses, Psychoses, Classification of Psychological Disorders. Defense Mechanism Developmental Disorders, Anxiety related Disorders, Conduct Disorders Epilepsy, Learning Disabilities, Scholastic related Problems. Personality Disorders, Suicidal Tendencies. Rehabilitation.

TEXT BOOK:

- Social work perspective in Human Behaviour, Margarete Parrish, New Delhi,
 2012
- 2. Roshni jain, An Introduction to Sociology, AITBS Publishers, India.
- 3. Richard, T. Schaefer, ,2011, Sociology A Brief Introduction, Tata Mcgraw Hill Eduction pvt ltd, Newdehi.

- 4. C.N. Shankar Rao, 2012, Sociology Principles of Sociology with an into Social Thought. S.Chand & Company ltd, Newdelhi.
- 5. Niraj Ahuja, 2011, A Text Book of Psychiatry, Jaypee Brothers Medical Publishers (Pvt) Ltd.
- 6. Dr. R.N. Sharma, 2010, Abnormal Psychology, Subject Publication.

REFERENCES:

- 1. Antony Gidden. 2001. Sociology. Polity Press. Cambridge.
- 2. Bhusan Vidya & D.R.Sachdeva. 2005. An Introduction to Sociology. Kitab Mahal Publications. Allahabad.
- 3. Carson (2012). Abnormal Psychology. (15thed). Pearson Education
- 4. Hurlock, Elizabeth (2001): Developmental Psychology, Tata McGraw Hill, New York.
- 5. Mangal, S.K. (2006): An Introduction to Psychology, Sterling Publishers Pvt. Ltd.
- 6. Misra, Girishwar Misra (2011): Handbook on Psychology in India, Oxford University Press, New Delhi.
- 7. Park, K (2015): Park's Textbook of Preventive and Social Medicine, Banarsidas Bhanot Publishers, Jabalpur.
- 8. Priya, Ritu and Shweta A.S. (2010). Status and Role of AYUSH Services and Use of Local Health Traditions under the NRHM: A Health Systems Study across 18 States (co-author: Shweta Awasthi Saxena), National Health Systems Resource Centre.
- 9. Sarason & Sarason (2011). Abnormal Psychology The Problem of Maladaptive Behaviour(12thed). Pearson Education.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. What is Psychology?
- 2. Mention the two major stages of human growth and development.
- 3. Name any four environmental factors that determine personality.
- 4. Expand SWOT.
- 5. How can you deal with frustration?
- 6. State some of the benefits of positive attitude.
- 7. How does WHO define 'Mental Health'?
- 8. What are the causes of neurotic reaction?
- 9. Define 'Anxiety'.
- 10. Mention the Psychological symptoms of Anxiety Disaster.

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Explain the factors influencing 'prenatal Stage'.

(or)

- b) Describe the important changes that occur during the 'Partunate' stage of the Infancy period.
- 12. a) Explain the characteristics of 'Personality.

(or)

- b) How do internal factors affect one's perception?
- 13. a) Enumerate the symptoms of 'Frustration'.

(or)

- b) Who is a 'Well Adjusted' Person?
- 14. a) Distinguish the difference between 'Normality' and 'Abnorality'.

(or)

- b) Describe the factors Contributing to 'Mental Illness'?
- 15. a) Differentiate Epilepsy from 'Seizure'.

(or)

b) Describe the psychological factors leading to 'Suicidal Behaviour'.

SECTION - C (3X10=30)

Answer any THREE Questions

- 16. Discuss the various development tasks significant to the period of Adolescence.
- 17. Explain the ways and means to improve once perception.
- 18. Describe 'Maladjustment'.
- 19. Explain various defense mechanisms.
- 20. Discuss the learning difficulties involved in a person who finds hard to understand language or concepts.

YEAR – I		CODE: 19EPS15B
SEMESTER – I	FAMILY AND MARITAL COUNSELLING	HRS/WEEK: 4
ELECTIVE - I (B)		CREDIT: 3

Course Outcome:

After completing this course, students will:

CO1: Be enriched to work with dysfunctional family system and be aware of methods to resolve

CO2: Be provided with conceptual understanding of family as a system and changes involved and its reflection on family relationship

CO3: Be provided with theoretical perception on family welfare management

CO4: Be facilitated to develop skills and insight of social worker in resolving issues.

SEMESTER I		C	OURSE CO	DDE:		TITL	E OF THE PA	PER: FAMILY	AND MARI	TAL			
			19EPS15	В			C	OUNSELLING	ì		HOURS:4	CREDITS:3	
COURSE OUTCOMES						1E SPECIFIC ((PSO)	OUTCOMES		MEAN SCORE OF				
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	4	3	4	3	4	4	4	3	4	4	3.7		
CO2	4	3	3	3	4	3	4	4	4	4	;	3.6	
CO3	5	4	3	4	5	5	5	4	4	4		4.3	
CO4	5	4	5	3	4	5	5	3	4	5		4.3	
	Mean Overall Score							3.975					

This Course is having **HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Family definition, Marriage, Types of families, Emerging families, Family ecology, Family functions, Family norms, Family patterns, Family structure, Family practices. Family as system, Family development tasks. Changing pattern of family in India. Communication in family: Importance, patterns of communications, factors affecting communications in families.

Unit II

Theoretical foundations for counseling: Cognitive – Developmental cognitive behavioral, Humanistic Theories, Existential counseling, Adlerian Systems theory, Post modern theories.

Unit III

Understanding the Dysfunctional family: Factors contributing to dysfunctional family system, broken families, single parent families. The impact of broken families on children.

Unit IV

Marriage and family; aims and types of marriage. Factors contributing to marital conflicts. Separation and divorce, Stress, Lack of adequate child care, inflexible work environment, infertility, Adoption, surrogate mothers Family Violence: Wife battering, Husband abuse, Child abuse, Elder abuse, Parent abuse. Family Intervention: Genogram, Methods of assessment, Rehabilitation, Crisis intervention, strengths and resilience

Unit V

Counseling: Definition, Family counseling; Marital Therapy; Pre-marital Counseling; approaches to marital Therapy.

TEXT BOOK:

- 1. Personality psychology, Randy J Larsen, New Delhi, 2011 Sister Mary Vishala, SNO, 2006, Guidance and Counseling (for teachers, parents & students), S. Chand & Company Limited, New Delh.
- 2. Robert L. Gibson, Marianne H. Mitchell, 2009, Introduction to Counseling and Guidance, PHI Learning Private Limited, New Delhi.
- 3. Colin Feltam, Windy Dryden, 2010 Brief counseling A Practical Integrative Approach, Tata McGraw Hill publishing company limited, New Delhi.
- 4. Samuel T. Gladding, 2009, Counseling A Comprehensive Profession, Pearson, New Delhi.

REFERENCES:

- 1. Augustine Meier, and Micheline Boivin (2010), Counseling & Therapy Technique, Theory and Practice (Sage)
- 2. Desai and Raju(2000) Gerontological Social Work in India: Some issues and perspectives, BR Publishers, New Delhi
- 3. Egan, G. (2013). The skilled helper A Problem Management Approach to Helping. Brooks/Cole Publishers.
- 4. Fonseea Mabe: Counseling for marital happiness, Leensufala, Bombay. Indian Social Institute: The family in the change and challenge of the seventies sterling publications, New Delhi.
- 5. Nelson-Jones (2010). The theory and practice of counseling and Therapy (5thed). Sage.
- 6. Nelson-Jones (2008). Basic Counselling Skills. Sage Publications.
- 7. Rosemary A Thompson (2016). Counseling Techniques-Improving relationships with others, ourselves, our families, and our environment, 3rd ed. Routledge.

YEAR – I	SOCIAL WORK RESEARCH AND	CODE: 19PSW21
SEMESTER - II		HRS/WEEK :5
CORE – V	SOCIAL STATISTICS	CREDIT: 4

Course Outcome:

After completing this course, students will:

CO1: Develop the theoretical understanding of Social Work Research.

CO2: Employ suitable research design and formulate research hypothesis.

CO3: Adopt suitable sampling technique, tool and method of data collection.

CO4: Identify appropriate statistical tests for data analysis and gain insights for data interpretation.

CO5: Develop skills to write research proposal and prepare research report.

SEMESTER II		CC	OURSE CO	DDE:		TITLE OI	F THE PAPER	SOCIAL WO	RK RESEARC	CH AND		
			19PSW2	21			soc	IAL STATIST	ICS		HOURS:5	CREDITS:4
COURSE OUTCOMES	PROGRAMME OUTCOMES PROGRA (PO)					PROGRAMN	GRAMME SPECIFIC OUTCOMES (PSO)			MEAN SCORE OF		
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S	
CO1	4	5	4	5	4	4	4	5	4	4		4.3
CO2	3	5	4	4	4	4	4	5	3	3	:	3.9
CO3	2	4	3	4	2	3	3	4	3	3	;	3.1
CO4	2	4	3	3	2	3	3	4	3	3		3
CO5	4 5 4 4 4					4	3	4	3	3	;	3.8
	Mean Overall Score								3.62			

This Course is having **HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Social Work Research: Meaning, Definition, Types – Qualitative, Qualitative and Mixed, Purpose of Research, Social Research and Social Work Research. Scientific Method: Nature, Characteristics, Purpose and Steps, in Research Process; Concepts: Operationalisation of Concepts, Variables and its Types, Hypothesis: Sources, Formulation, Attributes of Hypothesis and Types. Review of the Literature.

Unit II

Research Design and Sampling: Types of Research Design: Concept and Types. Identification and Formulation of Research Problems. Sampling: Definition, Principles, Types and procedures; Population and Universe; Measurement of Scales: Meaning, Concept; Levels of Measurement; Validity and Reliability.

Unit III

Sources and Methods of Data Collection: Sources: Primary and Secondary; Quantitative Method Research Tools: Observation, Survey Methods: Interview Guide, Interview Schedule, and Questionnaire: Construction of Questionnaire or Interview Schedule – Concept, Types of Questions. Qualitative Method: Focused Group Discussion and Case Studies. Pilot Study and Pre-testing.

Unit IV

Data Processing and Analysis: Editing, Coding, Code Book preparation, Frequency distribution, Tabulation; Diagrammatic and Graphical Representation of Data: Types, Report writing and Referencing; Agencies involved in Social Research; Ethical Considerations of Social Work Research. Research Proposal Writing.

Unit V

Social Statistics: Statistics: Meaning, Use and its Limitations in Social Work Research, Descriptive and Inferential Statistics, Measures of Central Tendency: Arithmetic Mean, Median and Mode, Measures of Dispersion: Range, Standard Deviation and Mean Deviation. Tests of significance: 't' Test, Chi-Square Test, ANOVA. Correlation: Meaning, Types and Uses. Karl Pearson's Coefficient of Correlation and Rank Correlation, Spearman's Rank Correlation.

TEXT BOOK:

- 1. Research in social work, 3rd edition, Anne E. Fortune, India, 2017
- 2. Research in Social Work 3rd edition, Annie E. Fortune, William J. Beird, Rawat Publications, 2017.
- 3. Qualitative Research for Education an Introduction to Theories and Methods Fifth Edition, Robert C. Bogdan Sari Knopp Biklen.
- 4. The Hand Book of Social Work Research ,ethods, Professor D. K. Karyap, Shikar Publications, 2017

- 5. Essentials of Research Methodology, PC. Vainketesh, Mark Publishers, 2012
- 6. Research Methodology for Life Sciences, Dr. N. Arumugam, Saras Publications.
- 7. Research Methodology with Business Correspondence and Report Writing, P. Ravi Lochanan, 2013, Margham Publications

REFERENCES

- 1. Ahuja R, 2010, Research Methods, Rawat Publications, Jaipur.
- 2. Alston M, Bowles W, 2012, Research for Social Workers, An introduction to methods, 3rd Edition, Australian Publications, Australia.
- 3. Babbie E, 2013, The Practice of Social Research, 13th Edition Cengage Learning, USA.
- 4. Chakraborty D, 2009, Research Methodology, SAURABH Publishing, New Delhi.
- 5. Dawson C, 2010, Introduction to Research Methods, A practical guide for anyone undertaking a Research Project, Viva Books, New Delhi.
- 6. Gupta B L, 2010, Research studies in Staff Development, Mahamaya Publishing house, New Delhi.
- 7. Pawar B S, 2009, Theory building for Hypothesis Specification in Organizational Studies, Response Books, New Delhi.
- 8. Rajathi A, Chandran P, 2010, SPSS for you, MJP Publications, Chennai
- 9. Tripathi P C, 2010, Research Methodology in Social Sciences, Sultan Chand and Sons, New Delhi.

QUESTION PATTERN SECTION A (10X2=20)

Answer ALL the Questions

- 1. Define Social Work Research.
- 2. Mention the advantages of Review of Literature.
- 3. What is Snow ball sampling?
- 4. What is the difference between Interval and Ratio variables?
- 5. What is Non Participant Observation?
- 6. Mention the advantages of Interview Guide.
- 7. Mention the types of Coding.
- 8. List any 4 agencies involved in social research.
- 9. What is "spurious correlation"?
- 10. List the two mathematical properties of Mean.

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Write a detailed note on Qualitative Research.

(Or)

- b) Mention the Steps in Scientific Method.
- 12. a) Discuss the Reliability Tests used in research

(Or)

- b) How will you formulate the research Problem?
- 13. a) Differentiate Pilot Study and Pre test.

(Or)

- b) Discus the types of Secondary Data.
- 14. a) What are the ethical considerations of Social Work Research?

(Or)

- b) Discuss the types of Diagrams in Social Science Research.
- 15. a) Explain the meaning, uses, and abuses of Statistics.

(Or)

b) Discuss the process of doing 'testing of hypotheses'.

SECTION - C (3X10=30)

Answer any THREE Questions

- 16. Explain the types of Hypotheses with your own example.
- 17. Describe the Probability sampling methods with illustrations.
- 18. Prepare a model interview schedule for the topic "problems of high school students in the city'.
- 19. Prepare a dummy research proposal for the topic of your own interest.
- 20. Describe the types of Correlations with examples.

YEAR – I	SOCIAL WELFARE	CODE: 19PSW22
SEMESTER - II		HRS/WEEK: 5
CORE – VI	ADMINISTRATION	CREDIT: 4

Course Outcome:

After completing this course, students will:

CO1: Gain insight on HSO, NGO.

CO2: Be able to register the human service organizations and can administer it effectively.

CO3: Understand the different administration process.

CO4: Develop an understanding on various social legislations and its implementation.

CO5: Practice social legislations for the betterment of the society.

SEMESTER II		CC	OURSE CO	DDE:		Т	ITLE OF THE	PAPER: SOC	AL WELFARI			
			19PSW2	22			AD	MINISTRATIO	ON		HOURS:5	CREDITS:4
COURSE OUTCOMES	PROGRAMME OUTCOMES (PO)					PROGRAMME SPECIFIC OUTCOMES (PSO)					MEAN SCORE OF	
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S	
CO1	5	3	4	4	5	5	4	3	4	4	4	4.1
CO2	5	3	5	3	4	5	4	3	4	5	4	4.1
CO3	5	3	5	4	4	5	4	3	4	5	4	4.2
CO4	4	3	4	3	3	4	3	2	2	3	:	3.1
CO5	4 3 4 3 4					4	3	3	4	4	;	3.6
	Mean Overall Score									3	.82	

This Course is having **HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Human Service Organizations – Features - Non-Government, Non-Profit making and Self –Governing. Types of Human Service Organizations –By Orientation, Levels of operation and Focus. National Policy on Voluntary Sector, 2007. Organizational structure and characteristics of Human Service Organizations. Approaches to Organizational Management – Bureaucratic model, Human Relations model and System Theory.

Unit II

Basic Administration Processes: Planning, Organizing, Staffing and Directing, Controlling, Reporting and Budgeting (POSDCORB). Elements of Directing – Supervision, Motivation, Leadership, Communication, Monitoring and Evaluation. Elements of Democratic Administration: Delegation, Decentralization and Participation.

Unit III

Personnel Administration: Manpower planning, Job design, Induction, Training, Staff welfare and Service conditions. Management by Objectives as applied to Human Service Organizations. Supervision. Organizational Climate. Public Relations and Networking.

Unit IV

Financial Administration: Budgeting, Accounting and Auditing. Banking Procedures & Practices. Maintenance of books of Accounts and Financial Documents and Records. Mobilization of Financial Resources, Grants in Aid. Administrative skills — Writing reports, letters and minutes of meetings. Maintaining Records and Data Banks.

Unit V

Procedures in Registering an Organization - Societies Registration Act, 1860, Indian Trust Act, 1882, Section 3 & 25 of Indian Companies Act, 1956. Foreign Contribution and Regulation Act, 1976. Exemption from Income Tax. Administrative Structure – Memorandum, Bye laws, Constitution, Functions and responsibilities of governing board, committees and office bearers. Administrative structure at the Central, State and Local level. Social Welfare Departments. Programme of Central Social Welfare Board and State Social Welfare Board.

TEXT BOOK:

- 1. Social Work Administration and Development, New Delhi: Rawat Publication, 2009.
- 2. Social Welfare Administration and Development, Sanjay Bhattacharya, Rawat Publications, 2017
- 3. Social Administration, Roger A. Lohmann, Nancy Lohmann, Rawat Publications, 2015

- 4. Non Governmental Organization Origin and Development, Suresh Chandra Anne Karen Trollope, Rawat Publications, 2015
- 5. Techniques and Guidance for Social Work Practice Ninth Edition, Bradford W. Sheafor Charles J. Horejsi, Eastern Economy Edition, 2011
- 6. Social Work Philosophy and Methods, P. D Mishra, Inter India Publications.

REFERENCES:

- 1. Allison, M. & Kaye, J. (2005). Strategic Planning for Nonprofit Organizations, 2nd ed. New York: John Wiley & Sons.
- 2. Batra, Nitin. 2004. Administration of social Welfare in India. Jaipur: Raj Publishing House.
- 3. Bhattachary, Sanjay. 2009. Social Work Administration and Development. New Delhi: Rawat Publication
- 4. Harihar Bhattacharya, Parthasarkar and AngshumanKar (eds) (2009) The Politics of Social Exclusion in India: Democracy at the Crossroads, Routledge.
- 5. P. Subba Rao, 2017. Management and Organsiation behavior (Text and Cases) Himalaya publishing House.
- 6. Proehl, R. (2001). Organizational Change in the Human Services. Thousand Oaks, CA:
- 7. Robin Lall 2004 The Dynamics of NGO's New Delhi, Dominant Publishers.
- 8. Samvel.C. Certo And S. Trevis Certo. Modern Management. Prentice Hall of India Pvt Ltd. 2007.
- 9. Sooryamoorthy R and Gangrade K.D 2006 NGOs in India-A cross Sectional study New Delhi: Rawat.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. Name any two HSO's with human relations approach.
- 2. List the characteristics of human service organizations.
- 3. What do you mean by staffing?
- 4. Define decentralization.
- 5. What do you mean by induction?
- 6. Write any two advantages of networking.
- 7. What do you mean by Data Bank?
- 8. Define Budget.
- 9. Expand the following a) SSWB b) FCRA
- 10. Enlist any two acts for registration of non government organizations.

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Explain in brief the systems theory for social welfare administration.

(or)

- b) Write briefly about the types of Human Service Organizations.
- 12. a) Write short notes on the administrative processes planning and organizing.

(or)

- b) Explain the elements of democratic administration.
- 13. a) What are the advantages of management by objectives?

(or

- b) Write short notes on the following
- a) Public relations b) Organizational climate
- 14. a) Briefly explain budgeting as an essential skill for administration.

(or)

- b) Write short notes on Grants in Aid.
- 15. a) Compare and contrast the HSO's registered as Trusts and Societies.

(or)

b) Explain in brief the functions of Governing Boards and Committees.

SECTION -C (3X10=30)

Answer any THREE Questions

- 16. Critically examine the India's National Policy for voluntary sector, 2007.
- 17. Write in detail the about the elements of Direction.
- 18. Write an essay on staff welfare and service conditions in HSO.
- 19. Elaborate on mobilization of financial resources for a Human Service Organization.
- 20. Explain in detail the organizational structure and programs of State Social Welfare Board.

YEAR – I	SOCIAL POLICY AND SOCIAL LEGISLATIONS	CODE: 19PSW23		
SEMESTER – II		HRS/WEEK: 5		
CORE – VII	LEGISLATIONS	CREDIT: 4		

Course Objectives:

- 1. To learn about social policy and Indian Constitution.
- 2. To understand Policies and Programmes in India.
- 3. To know about social legislations legal system.
- 4. To learn various social legislations.
- 5. To understand the significance of various Social Legislations

Course Outcome:

At the end of the course the students should have:

CO1: Learnt about social policy and Indian Constitution.

CO2: Understood the Policies and Programmes in India.

CO3: Learnt about social legislations legal system

CO4: Gained knowledge on social legislations.

CO5: Understood the significance of various Legislations.

SEMESTER II		COURSE CODE:				TITLE (OF THE PAPE	R: SOCIAL PO	DLICY AND S	OCIAL		
			19PSW	23		LEGISLATIONS					HOURS:5	CREDITS:4
COURSE		PROGR	AMME C	UTCOME	S		PROGRAMN	IE SPECIFIC (OUTCOMES			
OUTCOMES	(PO)					(PSO)					MEAN SCORE OF	
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	C	:O'S
CO1	5	3	5	3	4	5	5	4	4	4	•	4.2
CO2	5	3	5	3	5	5	5	4	4	5		4.4
CO3	5	3	5	3	5	5	5	4	4	5		4.4
CO4	5	3	5	3	5	5	5	4	4	5	4.4	
CO5	5	3	5	3	4	5	5 5 4 4 4			4		4.2
		Mean Overall Score									4.32	

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Social policy: Meaning, Scope, Objectives and Types - Social Welfare policy - Indian Constitution: Fundamental Rights and Directive principles of State Policy

Unit II

Policies and Programmes in India – Education, Health, Housing, Environment, Employment, Family, Child, Women, Elderly, Disabled and Backward Classes.

Unit III

Social Legislation: Meaning and Scope, Social Legislations in India, Indian Penal Code, Family Courts, Lok Adalats, The Legal Aid, Public Interest Litigation.

Unit IV

The Special Marriage Act 1955, Dowry Prohibition Act 1961, Hindu Adoption and Maintenance Act 1956, Juvenile Justice (Care and Protection of Child) Act 2015, Labour Abolition and Regulation Act 2016, Bonded Labour Abolition Act 1976, Protection of Civil Rights Act 1955, Protection of Consumer Act 1986, Right to Information Act 2005.

Unit V

Prevention of Immoral Traffic Act 1986, Transplantation of Human Organ Act 1994, Tamil Nadu Prohibition of Eve Teasing Act 1988, Tamil Nadu Prohibition of Ragging Act 1998, Domestic Violence Act 2005, Mahatma Gandhi National Rural Employment Guarantee Act 2005, Right to Education 2009, Protection of Children from Sexual Offences (POCSO) Act 2012, The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013, Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Amendment Act, 2015

TEXT BOOK:

- 1. Social policy themes and approaches, Paul Spicker, 7th edition, New Delhi,2010
- 2. Social legislation and and social change, K.Shanmugavelayutham Chennai, 1998
- 3. Social Policy Themes and Approaches, Paul Spicker, Revised Second Edition, Rawat Publications, 2008

- 4. Indian Polity 4th Edition, M. Lazmikanth, MC Graw Hill Education Media Private Ltd, Chennai, 2018
- 5. Constitutional History of Media, J. Jayapalan, MS Publications, Chennai
- 6. UGC NET Tutor Social Work, Arihant Publications New Delhi, 2014

REFERENCES:

- 1. Gaikwad, P. E. (2004) Law Basic Concepts. Pune: YASHADA.
- 2. Gangrade, K.D. Social Legislation in India (Vol-1 & Vol.2), Delhi: Concept Publishing Co.
- 3. Gaur K. D. (2004) A Text Book on the Indian Penal Code, Delhi: Universal Law Publication Co. Ltd.
- 4. Mathew, P. D. (1993) Constitution of India Simplified, New Delhi : Indian Social Institute.
- 5. Purohit, B. R. & Joshi, Sandeep (Ed) (2003) Social Justice in India, Jaipur :Rawat Publication.
- 6. Shah, Ghanshyam (1998) Social Justice- A Dialogue. Jaipur: Rawat Publication.
- 7. Shanmugavelayutham, K, 1998 Social Legislation and Social Change, VazhaValamudan Publishers, Chennai.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. What is the meaning of welfare?
- 2. What is social policy?
- 3. What is social security?
- 4. Who is a disabled person?
- 5. What is family court?
- 6. What is Indian Penal code?
- 7. Who is a Juvenile?
- 8. Who is a child laborer?
- 9. What is immoral traffic?
- 10. What is eve teasing?

SECTION - B (5X5=25)

Answer ALL Questions

- 11. a. Explain the objectives of social policy.
- (or) b. Explain the process of planned social change with social legislations.
- 12. a. Give details of housing policy of India.

(or)

- b. What are the programs for backward classes?
- 13. a. Explain the functions of Lok adalats.

(or)

- b. Give details of functions of legal aid.
- 14. a. Give details of special marriage act 1955.

(or)

- b. What are the important features of Bonded Labor Abolition act 1976?
- 15. a. Give details of protection of civil rights act1955.

(or)

b. Give details of Tamil Nadu prohibition of ragging act 1997.

SECTION -C (3X10=30)

Answer any THREE Questions

- 16. Explain the role of social policy in social welfare in India.
- 17. Explain the importance of health, women and social security policies in India.
- 18. Explain the use of right to information act with an example.
- 19. Explain the uses and impact of Juvenile Justice act 1986.
- 20. Explain the salient features of transplant of human organ act 1994.

YEAR – I	COUNSELING: THEORY AND	CODE: 19PSW24 HRS/WEEK: 5		
SEMESTER – II				
CORE – VIII	PRACTICE	CREDIT: 4		

Course Outcomes:

After completing this course, students will:

CO1: Be exposed to the counseling, principle of counseling.

CO2: Understand the counseling process and theories.

CO3: Be aware of different settings in counseling.

CO4: Understand the family and marital counseling.

CO5: Learn the ethics and role of social worker in counseling process.

SEMESTER II		CC	OURSE CO	ODE:		TITLE (OF THE PAPE	R: COUNSEL	ING: THEOR	/ AND			
			19PSW2	24		PRACTICE					HOURS:5	CREDITS:4	
COURSE		PROGRA	AMME O	UTCOME	S		PROGRAMN	/IE SPECIFIC (OUTCOMES				
OUTCOMES	(PO)				(PSO)					SCORE OF			
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	С	O'S	
CO1	5	4	5	4	4	4	4	3	4	4	4	4.1	
CO2	5	3	4	3	4	5	5	4	4	4	4	1.1	
CO3	4	3	5	3	4	5	5	4	4	5	4	1.2	
CO4	5	4	4	3	5	5	5	3	4	5	4.3		
CO5	5	4	5	4	4	5	5	4	4	5	4.5		
		Mean Overall Score									4.24		

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Introduction to Counseling: Meaning, Definition, Types, Needs, Importance of Counseling and Professional Counseling. Basic Principles of Counseling: Participation, Individualization, Confidentiality, Communication, Acceptance, Self-Confidence, Self Awareness and other Principles Governing the Counseling Relationship.

Unit II

Counseling Process: Interview and its Significance in Counseling – Use of Observation in Counseling and Understanding of Emotions in Counseling. Theories of Counseling: Psychoanalytic, Adlerian, Client Centered, Behavioural, Rational Emotion, Reality, Gestalt, Transactional analysis and Electric Theories.

Unit III

Counseling in different settings: School Counseling, Career Counseling, Industrial Counseling, Alcoholic and De-Addiction Counseling, Crisis and Trauma Counseling, Supportive Counseling with Persons Living with HIV, TB Patients, Persons with Disabilities, Counseling against Suicidal thoughts and Community Counseling. Techniques and Strategies in Counseling. Barriers to Effective Counseling Sessions; Counseling Evaluation.

Unit IV

Family and Marital Counseling: Family System – Factors affecting Communication in families – Marriage and family; Aims and types of Marriage; factors contributing to marital conflicts – Family Counseling; Infertility Counseling; Marital Therapy; Pre – Marital Counseling – Approaches to Marital therapy.

Unit V

Counselor as Professional; Ethical standards in Counseling; Relevance of counseling as a Social Work Practice; Role of Professional Social Worker in counseling field. Alternative Therapies: Art, Music, Recreation, Laughter, Play and Yoga.

TEXT BOOK:

- 1. S. Narayana Rao, 2007, Counseling and Guidance, Tata McGraw Hill publishing company limited, 2nd Edition, New Delhi.
- 2. Sister Mary Vishala, SNO, 2006, Guidance and Counseling (for teachers, parents & students), S. Chand & Company Limited, New Delh.
- 3. Robert L. Gibson, Marianne H. Mitchell, 2009, Introduction to Counseling and Guidance, PHI Learning Private Limited, New Delhi.

- 4. Colin Feltam, Windy Dryden, 2010 Brief counseling A Practical Integrative Approach, Tata McGraw Hill publishing company limited, New Delhi.
- 5. Samuel T. Gladding, 2009, Counseling A Comprehensive Profession, Pearson, New Delhi.

REFERENCES

- Egan, Gerard, 2006 The skilled helper: A problem management and opportunity, Development Approach to helping, Wadsworth publishers, Boston, USA
- 2. Marshal T.F & Rose. G: Counseling and School Social Work, John Wiley & Sons, NY.
- 3. Mcleod & John, 2003 Introduction to Counseling, Open university press, UK
- 4. Neukrug. E, 2012 Counseling theory and practice.
- 5. Palmer, 2004 Counseling, The BAC Counseling reader, British Association for Counseling, Vol. 1 & 2,Sage publications, New Delhi, India
- 6. Rao, Narayana, 2003 Counseling and Guidance, Tata McGraw Hill, New Delhi. India Sanders, 2002 First steps in Counseling, PCCS Books Ltd, UK.
- 7. Windy, Dryden, 2002 Handbook of Individual Therapy, Sage Publications, New Delhi.
- 8. Personality psychology, Randy J Larsen, New Delhi, 2011

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. Define Counselling.
- 2. What is self awareness?
- 3. What do you mean understanding of emotions?
- 4. What are the uses of observation in counselling?
- 5. What are the causes of marital disharmony?
- 6. What is Group Counselling?
- 7. Define family.
- 8. What is conflict?
- 9. Define rehabilitation.
- 10. What are the causes of anxiety?

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Explain the basic principles of counselling.

(or)

- b) Enumerate on Individualization.
- 12. a) Write a short note on Adlerian theory.

(or)

- b) Explain Rational Emotive Theory and its uses in counseling.
- 13. a) Enumerate the interviewing techniques in counselling.

(or)

- b) Explain about individual counselling.
- 14. a) Elucidate on factors affecting communication in families.

(or)

- b) Explain the causes of divorce.
- 15. a) Enumerate the functions of counsellors in schools.

(or)

b) State the role of a counsellor in hospital.

SECTION – C (3X10=30) Answer any THREE Questions

- 16. Discuss the needs, importance of professional Counselling with suitable examples.
- 17. Critically analyse Transactional Analysis.
- 18. Discuss the needs and importance of Industrial counselling.
- 19. Describe the various stages of marital conflict that increase marital discord and steps to resolve them.
- 20. Evaluate the causes of mental illness and methods to promote mental health in the society.

YEAR – I	CONCURRENT FIELD WORK PRACTICUM - II	CODE: PSWF2	
SEMESTER – II		HRS/WEEK : 2(15)*	
CORE PRACTICAL - II	PRACTICUM - II	CREDIT: 4	

Course Outcome:

After completing this course, students will:

CO1: Be exposed as a social worker in different settings.

CO2: Be exposed to different NGO, agency and company.

CO3: Be known to handle the client as a case worker.

CO4: Understand the group work process.

CO5: Organize Community organization programme.

SEMESTER II		COUR	SE CODE	: PSWF2		TITLE	OF THE PAPE	R: CONCUR	RENT FIELD \	VORK		
						PRACTICUM - I					HOURS: 2	CREDITS:4
COURSE OUTCOMES	PROGRAMME OUTCOMES (PO)					PROGRAMME SPECIFIC OUTCOMES (PSO)					MEAN SCORE OF	
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	co's	
CO1	5	4	5	5	5	5	5	4	5	5	4.8	
CO2	5	4	5	5	5	5	4	4	5	5	4	1.7
CO3	5	4	5	4	5	5	5	4	5	5	4	1.7
CO4	4	3	5	4	5	5	5	3	5	5	4.4	
CO5	5	3	4	5	4	5	5	3	5	5	4	1.4
	Mean Overall Score									4.6		

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

The first year students during the second semester go for practice based social work for two days in a week and expected to spend a minimum of 15 hours per week in the field. The first year students are placed in villages or hospitals or schools or NGOs or government offices or counseling centers or welfare organizations or service organization for a semester.

During the placement they have to practice all the primary methods of social work. One has to complete 5 cases in case work, two group following all the stages of group work practice with at least 10 sessions which include the formation, naming, fixing of objectives, organizing programmes based on the objectives, evaluation, sociometry and sociogram. In the community students are expected to conduct one programme or solve an issue of the community following the principles of community organization and social action. The community organization programme is being organized by each student to promote extension activities towards different villages, institutions and organizations.

Every week the students write a report of their activities and submit to the concerned field work supervisor. The supervisor conducts individual and group conference every week regularly. At the end of the semester Viva- Voce is conducted by two examiners, one being an external examiner and the other would be the supervisor. 20 marks are being awarded by the internal faculty supervisor, 20 Marks are awarded by the Agency Supervisor and 60 marks are being awarded by the external examiner.

Marks Allotments

S.	Assigned Wo	ork	Internal	External
No			Faculty	External
				Examiner
1	Case Work, Group Work, Com	40		
	Programme			
2	Presentation, Quality	in Components,		60
	Communication			
	Total		100	

YEAR – I		CODE: 19EPS25A
SEMESTER – II	DISASTER MANAGEMENT	HRS/WEEK: 4
ELECTIVE – II (A)		CREDIT: 3

Course Objectives:

- 1. To understand disaster and its effects.
- 2. To learn about the process of assessment in disaster management.
- 3. To understand the phases in disaster management.
- 4. To learn about Disaster Management Authority and Acts.
- 5. To know about role of Social Workers and Voluntary Agencies in disaster management.

Course Outcome:

At the end of the course the students should have:

CO1: Exposed to the disaster.

CO2: Learnt the process of disaster management.

CO3: Understood the phases of disaster management.

CO4: Learnt about Disaster Management Authority and Acts.

CO5: Gained knowledge on Role of Social Workers and Voluntary

Agencies in disaster management.

SEMESTER II	COURSE CODE: 19EPS25A					TITLE OF THE PAPER: DISASTER MANAGEMENT					HOURS: 4	CREDITS:3	
COURSE OUTCOMES		PROGRAMME OUTCOMES (PO)					PROGRAMME SPECIFIC OUTCOMES (PSO)					MEAN SCORE OF	
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	C	O'S	
CO1	4	2	3	4	4	4	4	3	3	3	3.4		
CO2	4	2	3	4	4	4	4	3	3	3	3	3.4	
CO3	4	2	3	4	4	4	4	3	3	3	3	3.4	
CO4	4	2	3	4	4	4	4	3	3	3	3	3.4	
CO5	5	3	4	5	5	5	5	4	4	4	4	1.4	
	Mean Overall Score										3.6		

This Course is having **HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Disaster: Meaning, Concept and related Concepts, Disaster, Risk, Hazard. Models of Disaster - Crunch Model and Release Model. Types and Effects of Disaster. Natural Disaster: Meteorological: Storm, Cyclone. Topological: Avalanche. Telluric: Earthquake. Manmade disasters. Effects: Physical, Social, Economic, Psychological, Spatial.

Unit II

Participatory Assessment of Disaster Risk Steps - Preparation, Hazard Assessment, Vulnerability Assessment, Capacity Assessment, Key Informant Interviews and Action Planning.

Unit III

Disaster Management and Phases: Pre-disaster: Prevention, Preparation, Education Vulnerability and Preparedness. Actual Disaster: Contingency, Short-Term and Long Term Plans. 4 Rs: Rescue, Relief, Recovery and Resettlement. Post disaster: Rehabilitation and Commemorations.

Unit IV

Disaster Management Act 2005, National Disaster Management Authority and National Institute of Disaster Management. Functions of District, State and National Disaster Management Authority. Resources Mobilization, Working with Other Professionals, Working with Government and Voluntary Organizations.

Unit V

Role of Social Workers and Voluntary Agencies in disaster both at the International and National level, Role of Media in disaster, Psycho Social Support and Mental Health Services, Case Studies on Bhopal Gas Tragedy 1984, Chernobyl Disaster 1986, Tsunami 2004, Thanae 2011, Vardha 2016, Ghaja 2018 Cyclones and Riots

TEXT BOOK:

- 1. Sulphey M.M. 2016. Disaster Management, Kindle Edition. New Delhi: PHI Learning Pvt. Ltd.
- 2. Ksyama Sagar Meher, Disaster Management New Edition, Neeraj Publications.
- 3. Varun Dutt Sharma, 2009, Environmental Education and Disaster Management, CBS Publication and distributors, New Delhi.
- 4. V. Jay Nichol, 2015, Environmental Studies and Disaster Management, Rawat Publication, New Delhi.

REFERENCES

- 1. Abarquez I and Murshed Z .2004. Community-Based Disaster Risk Management: Field Practitioners' Handbook. New Delhi: Asian Disaster Preparedness Center
- 2. Anderson M and Woodrow P. 1998. Rising from the Ashes: Development Strategies in Times of Disaster. London: ITDG Publishing,
- 3. Blaikie P, Cannon T, Davis I and Wisner B. 2004. At risk: Natural hazards, people's Vulnerability and Disaster. London: Routledge.
- 4. Carter I. 2002. Preparing for disaster, PILLARS Guide, Tearfund UK.
- 5. Carter I. 2003. Mobilizing the community, PILLARS Guide, Tearfund UK.
- 6. Heijmans A and Victoria L 2001. Citizenry-Based and Development-Oriented Disaster Response. Philippines: Centre for Disaster Preparedness.
- 7. Tearfund UK. 2004. Development and Risk Reduction in the Indian State of Andhra Pradesh: A case study

QUESTION PATTERN SECTION – A (10X2=20)

Answer ALL Questions

- 1. Define disaster management?
- 2. What is hazard?
- 3. Differentiate storm with cyclone?
- 4. What is Avalanche?
- 5. Mention the need for participatory assessment.
- 6. List few action plans for Tsunami victims.
- 7. What do you mean by 'contingency'?
- 8. What is rehabilitation?
- 9. Name few NGOs in your area, working in the field of disaster management?
- 10. Mention the innovative skills required for a social worker in the field of disaster management

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Explain the release model of disaster management

(or)

- b) What are the risk factors for any disaster?
- 12. a) "Man-made disaster is more dangerous than the natural disasters" justify

(or)

- b) Explain the psycho social and economical implications due to cyclone.
- 13. a) Explain the steps to be followed in vulnerability assessment (or)
- b) What are the advantages of key informant interviews?
- 14. a) What are the methods available for doing post disaster evaluation (or)
- b) What are the rehabilitation services provided for the victims of "Thane Cyclone"
- 15. a) "Voluntary organizations are the boon for disaster management" Justify

(or)

b) Explain the role of state government in disaster management.

SECTION -C (3X10=30)

Answer any THREE Questions

- 16. Explain crisis intervention model with your own example.
- 17. Describe the socio-psychological and economic effects due to natural disaster.
- 18. Write a detailed note on capacity assessment method with example.
- 19. Discuss in detail the activities for pre-disaster management.
- 20. Describe the various methods of resource mobilization for disaster management.

YEAR – I	ENVIRONMENTAL SOCIAL WORK	CODE: 19EPS25B
SEMESTER – II		HRS/WEEK: 4
ELECTIVE - II (B)		CREDIT: 3

Course Outcome:

After completing this course, students will:

CO1: Be exposed to the disaster management.

CO2: Understand the natural resources.

CO3: Be equipped with knowledge about biodiversity.

CO4: Understand the environmental social issues.

CO5: Be exposed to the field based visit and cause and effects of

environment.

SEMESTER II		CC	OURSE CO 19EPS25			TITLE OF	THE PAPER :	HOURS:4 CREDITS:3						
COURSE OUTCOMES	PROGRAMME OUTCOMES (PO)					PROGRAMME SPECIFIC OUTCOMES (PSO)				MEAN SCORE OF				
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5		:0'S		
CO1	5	5	4	4	5	5	5	4	4	4	4.5			
CO2	4	3	4	3	4	5	5	4	4	4		4		
CO3	3	3	3	4	4	4	3	3	4	4		3.5		
CO4	5	4	4	4	4	5	5	4	4	4		4.3		
CO5	5	4	4	4	5	5	4	5	4	4	4.4			
	Mean Overall Score									4	1.14			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Introduction to Environment and Environmental Studies: Definition and Components of Environment, Relationship between the different components of Environment, Man and Environment relationship, Impact of technology on Environment, Environmental Degradation, Multidisciplinary nature of the Environment studies, its scope and importance in the present day Education

System.

Unit II

Natural Resources: Renewable and non-renewable resources, Natural resources and associated problems, Forest resources, Water resources, Mineral resources, Food resources, Energy resources, Land resources, Role of an individual in conservation of natural resources, Equitable use of resources for sustainable lifestyles.

Unit III

Biodiversity and its conservation Definition: genetic, species and ecosystem diversity, Bio-geographical classification of India, Value of biodiversity, Biodiversity at global, national and local levels, Threats to biodiversity, Conservation of biodiversity.

Unit IV

Social Issues and the Environment from unsustainable to sustainable development, Urban problems and related to energy, Water conservation, rain water harvesting, watershed management, Resettlement and rehabilitation of people; its problems and concerns. Case studies, Climate change, global warming, Environmental Protection Act 1986, Public awareness Population growth, Role of Information Technology in Environment and Human Health. Role of Social Workers in Environmental Protection

Unit V

Field Work: Visit to a local area to document Environmental assets – River or Forest or Hill or Mountain. Visit to a local polluted site – Urban or or Rural or Industrial or Agricultural. Study of simple ecosystems – Pond, River, hills slopes.

TEXT BOOK:

- 1. Environmental social work Mel gray , John coates and Tiani Hetherington , New york , 2013
- 2. Disaster management, M.M. Sulphey
- 3. Disaster Management New Edition, Ksyama Sagar Meher, Neeraj Publications
- 4. Environmental Education and Disaster Management, Varun Dutt Sharma, CBS Publication and distributors, New Delhi 2009

5. Environmental Studies and Disaster Management, V. Jay Nichol, Rawat Publication, 2015, New Delhi

REFERENCES

- 1. Prabhakar V.K. 2000. Basic Laws on environment. (Many Volumes) Anmol Publishers. New Delhi.
- 2. Prabhakar V.K.2001. Environment and Agricultural Pollution. Encyclopedia of Environmental Pollution and Awareness in 21st Century Series. Anmol Publishers. New Delhi.
- 3. Purushotham Reddy. 2003. Environmental education. Neel Kamal Publishers, New Delhi.
- 4. Ravichand. M. 2007. Environmental Management. Concept Publishers. New Delhi.
- 5. Mohan I. 2002. Environmental Problems in 21st Century. Anmol Publishers. New Delhi.
- 6. Aravind Kumar. 2008. Environmental Resource Management. Daya Publishers. New Delhi:
- 7. Asthana. D.K. 2001. Environmental Problems and solutions. S. Chand publishers. New Delhi.
- 8. Benny Joseph. 2005. Environmental studies. Tata McGraw Hill Publishers. New Delhi:

YEAR – I	LIFE SKILLS FOR SOCIAL	CODE: 19PSWS1
SEMESTER – II	WORKERS	HRS/WEEK: 1
SKILL	WORKERS	CREDIT : 2

Course Outcome:

After completing this course, students will:

CO1: Be exposed to their personal skills and development.

CO2: Be determined with the communication and writing skill.

CO3: Be capable of understanding human behavior.

CO4: Be equipped with the professional skills for their future

development.

CO5: Learn the ethics and role of social worker.

SEMESTER II		COURS	E CODE:	19PSWS1		TITLE OF	THE PAPER: I	IFE SKILLS F	TITLE OF THE PAPER: LIFE SKILLS FOR SOCIAL WORKER				
											HOURS:1 CREDITS:2		
COURSE		PROGRAMME OUTCOMES PROGRAMME SPECIFIC OUTCOMES											
OUTCOMES			(PO)				(PSO)				MEAN SCORE OF		
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	co's		
CO1	4	3	4	4	4	5	4	4	4	4	4		
CO2	4	3	4	4	4	4	3	4	4	4	;	3.8	
CO3	4	4	3	4	4	4	5	4	4	4		4	
CO4	5	4	5	4	4	4	5	4	4	4	4	4.3	
CO5	4	3	4	3	4	4	3	3	4	3	3.5		
	Mean Overall Score							3.92					

This Course is having **HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Components:

- 1. Imparting practical knowledge on Life Skills which covers understanding self through a SWOT, Communication, Presentation skill, Interpersonal Skills such as Group Decision Making and Negotiation Skills.
- 2. Practical Exercises on Communication.

- 3. Conducting and Staging Two Street Plays in the Society or service and educational institutions by the students in group on relevant current issues of the society.
- 4. Awareness Creation Programme by the students in the Society or Service and educational institutions.

At the end of the semester Viva- Voce is conducted internally by two examiners by the faculty of the department. The students will be awarded with one credit.

Marks Allotments

Submission of Report - 20 Marks
 Presentation & Performance - 20 Marks
 Completion of Components - 20 Marks
 Skills Acquired - 20 Marks
 Learning Content - 20 Marks

YEAR – II	SUMMER PLACEMENT	CENTECTED II
	(OPTIONAL)	SEMESTER – II

At the end of I year during summer vacation, the students should do internship (non-supervised) for a period of 30 days in an agency or industry related to his or her specialization so as to utilize the Summer Vacation fruitfully to develop the professional self in oneself. There is no credit allotted for this and no examination conducted. This is to motivate students to engage in Self Learning.

Course Outcome:

After completing this course, students will:

CO1: Be exposed to the industry and social welfare organization.

CO2: Be experienced with management operation and work settings.

CO3: Be applying theoretical knowledge into practical.

CO4: Carry out research project.

CO5: Learn the ethics and role of social worker.

SEMESTER II		CC	OURSE CO	DDE:		TITLE OF THE PAPER: SUMMER PLACEMENT (OPTIONAL			PTIONAL)				
											HOURS :	CREDITS:	
COURSE OUTCOMES		PROGRA	AMME O (PO)	UTCOME	S	PROGRAMME SPECIFIC OUTCOMES (PSO)					MEAN SCORE OF		
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	5	3	5	4	5	5	4	3	5	5	4.4		
CO2	5	4	5	4	5	5	4	3	5	5		4.5	
CO3	5	4	5	4	5	5	4	3	5	5		4.5	
CO4	4	5	4	5	5	4	4	4	4	4		4.3	
CO5	5	3	5	4	5	5	5	3	5	5	4.5		
	Mean Overall Score							4.44					

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Process:

- 1. The learner must volunteer to locate a setting (own choice) about two months in advance and explore the possibilities of a 4 week practice learning practice placement.
- 2. The practice learning setting should preferably have a professionally trained social worker on the team of a staff.
- 3. The department will provide official letter for undertaking training in any organization.
- 4. The learner is to record the learning and submit a comprehensive report (in the format provided by the department) at the beginning of the II academic year both to the department (compulsory) and to the setting (on requirement).
- 5. Each student is expected to make a presentation on the placement experiences before the class and faculty (in the format provided by the department).
- 6. Mark or credit is not awarded for this.

SPECIALISATION PAPER – I

COMMUNITY DEVELOPMENT SPECIALIZATION

YEAR – II	RURAL AND TRIBAL	CODE: 19PSW31A
SEMESTER – III	COMMUNITY	HRS/WEEK: 5
CORE – IX	DEVELOPMENT	CREDIT: 4

Course Outcome:

After completing this course, students will:

CO1: Be exposed to the rural community.

CO2: Be determined to the development of the community.

CO3: Be capable of understanding human behavior.

CO4: Be committed to work with the tribal community.

CO5: Be equipped with skills to work with the community.

SEMESTER III		C	COURSE CODE: TITLE OF THE PAPER: RURAL						TRIBAL COM	MUNITY			
			19PSW3	31A			D		HOURS:5	CREDITS:4			
COURSE	PROGRAMME OUTCOMES				S		PROGRAMME SPECIFIC OUTCOMES						
OUTCOMES			(PO)				(PSO)				MEAN SCORE OF		
(CO)	PO1	PO2	PO3	PO4	PO5 PSO1 PSO2 PSO3 PSO4 PSO5				С	co's			
CO1	5	4	5	3	4	5	5	4	4	4	4.3		
CO2	5	4	5	3	5	5	5	4	5	5	4	1.6	
CO3	5	4	5	3	5	5	5	5	4	5	4	1.6	
CO4	5	3	5	3	5	5	5	4	5	5	4.5		
CO5	5	4	5	3	4	5	5	5	5	4	4.5		
	Mean Overall Score								4	1.5			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Rural Community: Meaning, Characteristics. Assessment of Needs and Problems in the Community. Participatory Rural Appraisal — Meaning, Characteristics, Principles, Tools, Steps and Limitations. Rural Organization and Rural Development. Rural Problems: Poverty, Illiteracy, Unemployment, Problems related to agriculture, Community Health.

Unit II

Community Development: Meaning, Objectives, Principles, and Models; methods; Earlier experiments in rural developments - Sriniketan Experiment and Marthandam Experiment. Rural Extension, Millennium Development and Sustainable Development Goals. Rural Development Administration and Panchayat Raj Institutions (PRI), 73rd Amendment and its Salient Features, Features of Tamil Nadu Panchayat Act 1994. Rural development Agencies: DRDA & BDO.

Unit III

Rural Development Programmes: A) Area Based - Drought Prone Area Programme (DADP), Intensive Agriculture Area Programme (IAAP) and High Yield Variety Programme, MP's & MLA's Area development programme. B) Target Based programmes: IRDP, TRYSEM, SGSY, and Employment Assurance Scheme, MGNREGA. C) Welfare Programmes: Minimum Needs Programme, ICDS, Five year Plans and Strategies for Rural Development. Community Participation.

Unit IV

Tribes: Definition, Concept, Characteristics of the Tribal Community; Nomadic and De- Notified Tribes; Regional Distribution of Tribes and Nehru's Panchasheel Principles of Tribes. Social System of Tribes: Socio economic conditions; Cultural and religious aspects; status of women: Status of Children; Tribal leadership and Political Participation -Local, State, and National levels.

Unit V

Problems of Tribes: Child Marriage, Poverty, Ill-Health, Illiteracy, Exploitation and atrocities on tribes. Tribal Resettlement and Rehabilitation and its related problems. Tribal Movements and Tribal Revolt, Naxalpari Movement. Tribal Development Programmes: Tribal Development Policies, Tribal Area Development Programme; Tribal Sub-Plans, Need and Importance of Social Work practice in Tribal areas. Problems in implementation of tribal development programmes.

TEXT BOOK:

- 1. Margaret Ledwith, 2006, Community Development A Critical Approach, Rawat PublicationJaipur.
- 2. Samuel H. Taylor and Robert W. Roberts, 2013, Theory and Practice of Community Social Work, Rawat Publications, Jaipur.
- 3. Asha Ramagonda Patil, 2013, Community Organisation and Development An Indian Perspective, PHI Learning Private Limited, Delhi.
- 4. Dr. P. V. Ramana Rao, Rural Development and Poverty Alleviation Programmes NGNREGS, Aryan Publication, New Delhi.
- 5. Alison Gilchrist, Marilyn Taylor, Short Guide to Community Development.

REFERENCES:

- 1. Christopher, A J. and Thomas William. 2006. Community Organisation and Social Action. New Delhi: Himalaya Publishing House.
- 2. Devendra Thakur (1994) Tribal life in India (Ten Vols), Deep & Deep Pub., New Delhi.
- 3. Dutt&Sundaram, 2013, Indian Economy, Sultan& Chand, New Delhi.
- 4. Jain, S.C.,1998 Community development and Panchayat Raj in India, AlliedPublishers Ltd., Chennai-2
- 5. Suresh Chandra, Anne Karen Trollope, 2015, Non-Governmental Organizations, Rawat Publications,
- 6. Kumar, Somesh. 2004. Participatory Method in Community Work. New Delhi: Himalya Publisher.
- 7. Sachinanda and Purnendu, 2001 Fifty Years of Rural Development in India, Firma KLM Pvt Ltd., Kolkata.
- 8. William, A. Thomas and A. J. Christopher. 2011. Rural Development concept and recent approaches. Jaipur: Rawat Publications.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. Define rural community.
- 2. What is poverty?
- 3. Define sustainable development.
- 4. What is MDG?
- 5. Define 'HYV'.
- 6. Explain community participation.
- 7. Who are de-notified tribes?
- 8. Define political participation.
- 9. What is tribal resettlement?
- 10. Where is Naxalbari located?

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Write a note on problems related to community health.

(or)

- b) Explain rural organization and rural development.
- 12. a) Highlight the key features of the Sriniketan experiment on rural community development.

(or)

- b) Explain DRDA and its importance.
- 13. a) Write a note on DADP.

(or)

- b) Explain MLA's area development programme.
- 14. a) Discuss Nehru's Panchasheel principles on tribes.

(or)

- b) Explain with suitable examples the status of tribal women.
- 15. a) Explain tribal area development programme.

(or)

b) Write a note on tribal sub plans.

SECTION -C (3X10=30)

Answer any THREE Questions

- 16. Define PRA. Critically analyze PRA principles, tools and steps.
- 17. Critically analyze Panchayat Raj Institutions' role in rural development administration with special emphasis on Tamil Nadu Panchayat Act, 1994.
- 18. Evaluate, quoting suitable examples, the role of ICDS as welfare programme.
- 19. Portray the status of tribal leadership and political participation in India.
- 20. Examine the need and importance of social work practice in eradicating exploitation and atrocities on tribes.

SPECIALISATION PAPER - I

HUMAN RESOURCE MANAGEMENT SPECIALIZATION

YEAR – II		CODE: 19PSW31B
SEMESTER – III	HUMAN RESOURCE MANAGEMENT	HRS/WEEK: 5
CORE – IX		CREDIT: 4

Course Outcome:

After completing this course, students will:

CO1: Be exposed to the concept of human resource management.

CO2: Be determined to the process of human resource planning.

CO3: Be equipped with the knowledge on training and development.

CO4: Be capable of handling with administrative structure.

CO5: Learn the human resource development.

SEMESTER III	COURSE CODE: 19PSW31B					TITLE OF THE PAPER: HUMAN RESOURCE MANAGEMENT					HOURS : 5	CREDITS:4	
COURSE OUTCOMES	PROGRAMME OUTCOMES (PO)					PROGRAMME SPECIFIC OUTCOMES (PSO)				MEAN SCORE OF			
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	5	3	5	3	5	5	4	4	5	5	4.4		
CO2	5	3	5	3	5	5	4	4	5	5	4	4.4	
соз	5	3	5	3	5	5	4	4	5	5	4	4.4	
CO4	5	3	5	3	5	5	4	4	5	5	4	4.4	
CO5	5	3	5	3	5	5 4 4 5				5	4	4.4	
	Mean Overall Score								4	4.4			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Human Resource Management: Concept, Scope, Objectives, Evolution, Approaches, Structure, Policies and Functions of Human Resource Management. Emerging trends of Competencies and Roles of HR Professionals.

Unit II

Human Resource Planning: Concept, Objectives, Need, Process. Job Analysis: Uses, Content. Job Description, Job Specification. Recruitment: Meaning, Sources and Methods of Recruitment. Selection: Meaning, Steps, Application Blank, Psychological test, Interviews and Physical Examination. Talent Acquisition: Goals, Polices, Sources and Methods. Placement and Induction. Compensation Management: Compensation structure, Factors influencing Compensation Plans and Policies. Incentive Schemes, Rewards and Recognition

Unit III

Training and Development: Meaning, Importance, Purpose, Types and Methods. Wages and Salary Administration: Definition, Objectives, Process of Wage Determination, Methods of Wage payment, Principals of Wages, Factors influencing Wage and Salary administration, Fringe Benefits. Concept of Wage and Salary – Wage Theories – Types of wages – wage differentials – wage regulators – Incentive Schemes.

Unit IV

Performance Appraisal Systems; – Transfers and Promotions – Discharge, and Superannuation Dismissal. Employee Retention and Separation: Attrition and Retention – Concept, - Employee benefit plans. Disciplinary procedures – Domestic enquiry – Grievance Procedure — Retirement: Exit Interview, Retirement Benefits – Voluntary Retirement Scheme.

Unit V

Contemporary trends in HRM: Corporate Social Responsibility, Benchmarking, Core Competency, Business Process Outsourcing (BPO), Business Process Reengineering (BPR), Competency Mapping, Balanced Score Card, Skill Matrix, People Capability Maturity Model (PCMM), Quality Circle, Total Quality Management (TQM) and Total Productivity Maintenance (TPM), Six Sigma and Lean Sigma, 5S Model, and Kaizen. International Organization for Standardization (ISO)

TEXT BOOK:

- 1. VSP Rao, 2010, Human Resource Management text and cases, New Delhi: Excel Books.
- 2. Dr. S.S.Khanka, 2003 Human Resource Management text and cases S. Chand and Company Pvt. Ltd., New Delhi.
- 3. BPP Learning Media, 2009, Human Resource Management, Viva Books, New Delhi.
- 4. K. Aswathappa, 2008, Human Resource Management text and cases, Tata McGraw Hill publishing company limited, New Delhi.
- 5. P. Subba Rao, 2016, Personnel and Human Resource Management Himalaya Publishing House, New Delhi.

REFERENCES:

- 1. Andrew J. Dubrin, 2012 Essentials of Management, New York: Thomson Southwestern.
- 2. Bernadin John H, 2012, Human Resource Management, New York: McGraw Hill.
- 3. Ivancevich, 2012, Human Resource Management, New York: McGraw Hill.
- 4. Luis R.Gomez-Mejia, David B.Balkin, Robert L Cardy. 2012, Managing Human Resource. New Delhi: PHI Learning.
- 5. Monir Tayeb. 2007, International Human Resource Management. New York: Oxford University Press.
- 6. Robert L. Mathis and John H. Jackson, 2007, Human Resource Management, New Delhi :Cengage Learning.
- 7. Uday Kumar Haldar, Juthika Sarkar.2012, Human Resource management. New Delhi: Oxford University Press.
- 8. Wayne Cascio, 2007, Managing Human Resource, New York: McGraw Hill.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. Give the meaning of Human Resource Management.
- 2. Specify two characteristics of Human Resource Management.
- 3. What is employee sourcing?
- 4. Mention two uses of maintaining an application blank.
- 5. State two employee benefit plans.
- 6. What do you understand by the term attrition?
- 7. Mention two objectives of wage administration.
- 8. Give the meaning of 'Fringe Benefits'.
- 9. What do you understand by the term 'Management Development Programme'?
- 10. Identify two features of Human Resource Development.

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Briefly describe the managerial functions of Human Resource Management.

(or)

- b) Write a note on the objectives of the Human Resource Management.
- 12. a) Write short notes on the process of job analysis.

(or)

- b) Differentiate 'Placement' from 'Induction' with suitable examples.
- 13. a) State the implications of Voluntary Retirement Scheme for the scope of employment of workers.

(or)

- b) Enumerate the merits of transfers and promotions.
- 14. a) Differentiate 'Fair Wage' from 'Living Wage'.

(or)

- b) Write a note on the components of 'Earnings' and 'Deductions'.
- 15. a) State the importance of training for the employees in an organization.

(or)

b) Highlight the various features of employee counselling.

SECTION – C (3X10=30) Answer any THREE Questions

- 16. Discuss in detail the various roles played by a Human Resource Manager in an organization.
- 17. Elaborately discuss the various sources of recruitment applicable to the industries in India.
- 18. Present a detailed note on the steps involved in handling discipline in an industry.
- 19. Give an account of the various theories relating to wage and salary administration.
- 20. Elucidate the various Human Resource Development Instruments and their implementation in organizations and compare some of the practices applicable to your field work organization.

Medical Social Work

SPECIALISATION PAPER - I

MEDICAL AND PSYCHIATRY SPECIALIZATION

YEAR – II		CODE: 19PSW31C
SEMESTER – III	MEDICAL SOCIAL WORK	HRS/WEEK: 5
CORE - IX		CREDIT: 4

Course Outcome:

After completing this course, students will:

CO1: Be exposed to the importance of social work.

CO2: Understand health care measure.

CO3: Be equipped with hospital administration.

CO4: Understand communicable and non-communicable disease.

CO5: Be applicable to work in hospital setting.

SEMESTER III		CC	OURSE CO	DDE:		TITLE OF THE PAPER: MEDICAL SOCIAL WORK							
			19PSW3	1C							HOURS:5	CREDITS:4	
COURSE OUTCOMES		PROGRA	AMME O (PO)	UTCOME	S	PROGRAMME SPECIFIC OUTCOMES (PSO)					MEAN SCORE OF		
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	5	4	5	4	5	5	5	4	4	4	4	1.5	
CO2	4	4	4	3	4	4	4	4	5	4		4	
CO3	4	4	4	4	4	5	5	4	4	5	4	1.3	
CO4	5	4	5	5	4	5	5	4	4	5	4	1.6	
CO5	4	3	4	4	4	5 4 4 5 5				4	1.3		
	Mean Overall Score								4	.34			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Medical Social Work: concept, Definition, Need of medical social work –Role and functions of medical social worker. The meaning of health, hygiene, illness and handicap: medicine through the ages; changing concept of health: concept of patient as a person. Historical development in Medical Social Work

in the West and in India. Trends, Scope and Limitations of Medical Social Work practice in India.

Unit II

Health care models - medical health prevention and promotion model, integrative model and development model; holistic approach to health: alternative system of health - yoga naturopathy.

Unit III

Organization and Administration of Medical Social Work department in Hospital. Present practice and equipment of medical social work in various setting. a) Government Hospital, Corporate and Private, Specific Disease Hospitals, Specialized Clinics, Community Health Centers, Blood Banks, Eye Banks, Health Camps b) Schools for the Physically and Mentally challenged, Sheltered Workshops, Residential institutions for Physically and Mentally Challenged.

Unit IV

Communicable and Non Communicable diseases - TB, STD, AIDS, Polio. Diarrhoeal diseases. Malaria, typhoid, leprosy, leptospirosis. Major non communicable diseases - cancer, diabetes, hypertension, cardio disorders, neurological disorders, and asthma; Physically challenged, Nutritional disorders, Occupational health problems, Women's health problems, Pediatric health problems and Geriatric health problems

Unit V

Medical social work practices in different in Settings. Outpatient unit, ICU, Maternity and Pediatric ward, STD and HIV clinic, Cardiology department, TB sanatorium and Cancer hospitals. Role of Medical Social Worker in Organ Transplantation and Palliative Care Unit. Supportive services and networking for practice of medical social work teamwork in medical setting. Skills and techniques used in medical social work practice. Fund Mobilizing in Medical Social Work.

TEXT BOOK:

- 1. Preventive and social medicine 21st edition, K. Park
- 2. K. Park, 2013, Park Text Book of Preventive and Social Medicine, M/S Banarsidas Bhanot Publishers.
- 3. Pondicherry Aids Control Society, 2007 Pregnancy, Byword books Private Limited.

REFERENCES

- 1. Blaxter, Mildred, 2004 Key Concepts on Health, Polity Publishers, New Delhi
- 2. Bradshaw & Bradshaw, 2004 Health Policy for Health Care Professional, Sage Publications, New Delhi.
- 3. Brannon& Feist, 2000 Health Psychology, TLARC Publication, Toronto.
- 4. Dziegielewski, Sophia, 2003 Changing Phase of Health Care, Social Series II Education, Sara book, New Delhi.
- 5. Sarah Ghelert, 2006 Hand book of Health Social Work, John Wiley & Co., London
- 6. Sirohi, Anand, 2005 Modern Perspectives in Social Work, Dominant Publishers, New Delhi.
- 7. Zastrow, Charles, 2000 Introduction to Social Work and Social Welfare, Wadsworth Publication, Belmont.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. Write down any two objectives of Medical social work.
- 2. Mention any two social work methods which are practiced in hospital setting.
- 3. What is Team Work?
- 4. What is illness? Differentiate from disease.
- 5. What is Naturopathy?
- 6. What is sheltered workshop?
- 7. Expand HIV & STD.
- 8. Mention any two techniques used in Medical Social Work.
- 9. Write any two Occupational problems.
- 10. What are Supportive services?

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Define Medical Social Work and write down the scope of Medical Social Work.

(or)

- b) Define the concept of illness and its types.
- 12. a) Briefly write a note on Preventive model of health care

(or)

- b) Discuss the limitations of practicing Medical Social Work.
- 13. a) Explain the functions of medical social work department in a hospital.

(or)

- b) Differentiate impairment, disability and handicapped with examples.
- 14. a) Write a short note on Geriatric health problems.

(or)

- b) What is a non communicable disease? List down the major non communicable diseases.
- 15. a) Explain the importance of networking in the practice of Medical Social Work.

(or)

b) Discuss the scope of practicing Medical Social Work in Schools.

SECTION – C (3X10=30) Answer any THREE Questions

- 16. Explain elaborately on the historical development of Medical Social Work in India and in the West.
- 17. Write in detail the different models of health care.
- 18. Explain the role of social worker in dealing with persons with disability.
- 19. Write an essay on Nutritional Disorders.
- 20. Describe the various skills required for a Medial Social Worker.

SPECIALISATION PAPER - II

COMMUNITY DEVELOPMENT SPECIALIZATION

YEAR – II	URBAN COMMUNITY	CODE: 19PSW32A
SEMESTER – III		HRS/WEEK: 6
CORE - X	DEVELOPMENT	CREDIT: 4

Course Outcome:

After completing this course, students will:

CO1: Be exposed to the urban communities.

CO2: Be aware of slum legislation.

CO3: Understand urban community development.

CO4: Be capable of handling urban administrative structure.

CO5: Learn the role of stake holders in urban community development.

SEMESTER III		-	OURSE C			TITLE OF THE PAPER: URBAN COMMUNITY DEVELOPMENT					HOURS:5	CREDITS:4	
COURSE OUTCOMES				OUTCOME	S	PROGRAMME SPECIFIC OUTCOMES (PSO)					MEAN SCORE OF		
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	co's		
CO1	5	4	5	3	4	5	5	4	4	4	4	1.3	
CO2	5	4	5	3	5	5	5	4	5	5	4	1.6	
соз	5	4	5	3	5	5	5	5	4	5	4	1.6	
CO4	5	3	5	3	5	5	5	4	5	5	4	1.5	
CO5	5	4	5	3	4	5 5 5 5 4				4	1.5		
	Mean Overall Score								4	1.5			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Urbanization: Concept, Characteristics and Theories. Related Concepts: Corporation, Municipality, Town, City, Metropolis, Megapolis, Suburbs, Satellite Town, Smart Cities, Hinterland, Agglomeration, and Urbanism. Urbanization and Social Problems Urban Problems: Pollution, Crime, Accidents, Commercial Sex Work, Drug Addiction, Housing, Human Trafficking, Juvenile Delinquency, Urban Traffic Problems and Suicide.

Unit II

Slums: Definition, Causes, Characteristics, Socio-Psychological Issues of Slum Dwellers, Effect of Industrialization and Globalization on Slum. Displacement and Rehabilitation. Slum Clearance Board and its functions. Tamil Nadu Slum Area (Clearance and Improvement) Act 1971. National Slum Development Programme. Urban Development Policy, Town planning and Rules of town planning. Urban Services and Urban Deficiencies, Housing and Urban Development Corporation (HUDCO).

Unit III

Urban Community Development: Meaning, Scope. Early Development Interventions: SPARK Mumbai, People Project of Action Aid, Oxfam, Unorganized Workers' Federation, National Domestic Workers Movement, National Slum Dwellers Federation. Welfare Extension Projects of Central Social Welfare Board. Problems in implementation of Urban Community Development Programmes.

Unit IV

Urban Municipal Administration- Structure, Composition, Functions and Current issues. Democratic functioning of Urban local bodies, 74th Constitutional Amendment, Governance and Citizen's Participation. E-Governance in Urban Development, National Urban Information System (NUIS).

Unit V

Urban Community Development Programme: Five Year Plans and Urban Development. Major National Missions: JNNURM (AMRUT), Housing for all 2022. Institutions and Government departments for Urban Development: CMDA, TNHB, TNSCB, CMWSSB. Urban Training Institutions: TNIUS, NIUA. Role and skills of Community Development Worker in Urban Community Development. Mechanisms to address Urban Social Concerns: 108 Service, Women Helpline, Child helpline.

TEXT BOOK:

- 1. Urban community development Jacob Z. Thudipara, second edition, New Delhi,2017
- 2. Urban Community Development Second Edition, Jacob Z. Thudipara, Rawat Publications, 2017, Jaipur

- 3. Theory and Practice of Community in Social Work, Samuel H Taylor, Rawat Publications, 2017, Jaipur
- 4. Community Development a Critical Approach, Margaret Ledwith, Rawat Publications, 2006, Jaipur.
- 5. Rural Development and Poverty Alleviation Programmes, Dr. P. V. Ramana Rao, Aryan Publications New Delhi, 2018
- 6. Community Organization and Development in Social Work an Indian Perspective, Asha Ramagonda Patil, PH Learning Private Ltd Delhi, 2013
- 7. UGC NET Tutor Social Work, Arihant Publications New Delhi,2014

REFERENCES:

- 1. Ashish Bose, 2001 India's Urbanization, Institute of Economic Growth, McGraw Hill, New Delhi.
- 2. Bala, 2000 Trends in Urbanization in India, Patel enterprises, New Delhi
- 3. Bhattacharya B, 2000 Urban Development in India, Shree Publishing House, New Delhi.
- 4. Census of India Government of India Publication, 2011.
- 5. H.U.Bijlani, 2013, Urban Problem, Centre for Urban Studies, Lipa, New Delhi
- 6. Harper Collins, 2014, Transforming our Cities.
- 7. Urbanisation and Urban System in India, Oxford University Press, New Delhi. Mitra,

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. What is Urbanism?
- 2. What is urbanization?
- 3. What is UBSP?
- 4. What is Town Planning?
- 5. What is Urban Planning?
- **6.** What is Urban Development?
- 7. Mention any two problems of Municipality.
- **8.** Mention any two functions of Municipality.
- 9. Mention any two uses GIS in urban development.
- 10. Mention any two limitations of GIS.

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Explain the theories of Urbanization.

(or)

- b) Give details of problem of pollution in urban areas.
- 12. a) Explain the characteristics of slum in India.

(or)

- b) Explain problems of implementing urban community programmes.
- **13.** a) Explain the salient features of town and country planning act.

(or)

- b) Explain the origin of urban community development.
- **14.** a) Explain the functions of municipality.

(or)

- b) Explain the functions of metropolitan development authority.
- **15.** a) Explain impact of GIS on urban development.

(or)

b) Explain the nature of GIS.

SECTION - C (3X10=30)

Answer any THREE Questions

- 16. Explain various urban social problems in India.
- **17.** Explain the various programmes for slum dwellers in India.
- 18. Differentiate urban development and urban community development.
- **19.** Explain the history of local self government in India.
- **20.** Explain the various uses of GIS with Examples.

SPECIALISATION PAPER - II

HUMAN RESOURCE MANAGEMENT SPECIALIZATION

YEAR – II	LABOUR LEGISLATIONS AND	CODE: 19PSW32B
SEMESTER – III	LABOUR LEGISLATIONS AND LABOUR WELFARE	HRS/WEEK: 6
CORE - X	LABOUR WELFARE	CREDIT: 4

Course Outcome:

After completing this course, students will:

CO1: Understand labour system.

CO2: Be aware of working environment and legislations.

CO3: Learn about the labour classification.

CO4: Understand the wage legislation.

CO5: Learn about the social legislation.

SEMESTER III			COURSE CODE: TITLE OF THE PAPER: LABOUR LEGI 19PSW32B LABOUR WELFARE							S AND			
			19PSW3	2B			LAE		HOURS :6	CREDITS:4			
COURSE	PROGRAMME OUTCOMES (PO)				PROGRAMN	ME SPECIFIC (DUTCOMES						
OUTCOMES						(PSO)					MEAN SCORE OF		
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	5	3	5	4	5	5	4	4	4	5	4.4		
CO2	5	4	4	3	5	5	4	3	4	4	4	1.1	
CO3	5	3	5	4	5	5	4	4	4	5	4	1.4	
CO4	5	4	4	3	5	5	4	3	4	4	4	1.1	
CO5	4	4	4	3	4	4 2 4 4 4				3.7			
	Mean Overall Score							4	.14				

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Labour- Concept, Labour Legislation, Concept, Objectives, Importnce and Principales. Industrialization — Labourers at various occupations. Characteristics of Indian Labour - Labour Problems in India - Labour Welfare: Concept, need, objectives, principles, theories, scope, limitations. Classification

Administration of labour, - Central and State level . Labour Welfare Officer : Qualifications, Roles and Responsibilities.

Unit II

Legislations relating to working condition and safety- The Factories Act of 1948, The Mines Act 1952, The Motor Transport Workmen Act 1961, Plantation Labour Act 1951, Tamil Nadu Shops and Establishment Act 1947. The Tamil Nadu Catering from Establishment Act 1952.

Unit III

Contract Labour (Regulations and Abolition) Act 1970, The Apprenties Act 1961, Tamilnadu Industrial Establishment (National and Festival Holidays) Act 1958 and the Amendment of this Act, 2017.

Unit IV

Wage Legislations: Workmen's Compensation Act 1923, Payment of wages Act, Minimum wages Act 1948, Payment of Bonus Act 1965, Equal Remuneration Act 1976.

Unit V

Social Security Legislations: Employees State Insurance Act 1948, Employees Provident Fund Act 1952, Payment of Gratuity Act 1972, Maternity benefit Act 1961.

TEXT BOOK:

- 1. Labour law in factories, mines, plantations, transport shops & other industrial establishments, S.C. Srivastava New Delhi, 1995.
- 2. Labour Welfare Trade Unionism and Industrial Relations, Punekar Deodhar Sankaran, Himalaya Publishing House 1992
- 3. Labour Problems and Social Welfare, RC Saxena, K Nath and CO. Meerut Publications, 1996
- 4. Labour Relations in India, RC Saxena, SR Saxena, Prakashan Kendra, 1998
- 5. Industrial Relations and Labour Laws, SC Srivastava, Vikas Publishing House, Pvt Ltd, 1995
- 6. Labour Problems and Social Welfare, RC Saxena, K Nath and Co Meeru, 1996

- 7. Labour Law in Factories, Mines, Plantations, Transport, Shops and other Industrial Establishment, S.C. Srivastava, Prentice Hall of India Private Limited, 1992
- 8. Contract Labour (Regulation and Abolition Act, 1970) YB Bhonsle, S. Chand and Company Ltd, 1972
- 9. UGC NET Tutor Social Work, Arihant Publications New Delhi,2014

REFERENCES:

- 1. Babu Sharath and Rashmi Shetty. 2007. Social Justice and Labour Jurisprudence. New Delhi: SAGE Publication.
- 2. Kapoor, N.D. 1993. Elements of Industrial Law. New Delhi: Sultan Chand & Sons.
- 3. Kapoor, N.D. 1995. Hand Book of Industrial Law. New Delhi: Sultan chand & Company.
- 4. Ramaswamy, E.A. & Uma Ramaswamy. 1981. Industry and Labour: An Introduction New Delhi: Oxford University Press.
- 5. Vaidyanathan, S. 1986. Factory Laws Applicable in Tamilnadu, Vols: 1,2,3, Madras:Madras Bood Agency.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. Give the meaning of Labour.
- 2. What is Labour Welfare?
- 3. Write any two legislations relating to the working condition and safety of the workers.
- 4. Write any two legislations enacted in the year 1952.
- 5. Mention any two legislations relating to industrial relations.
- 6. Write the names of the legislations relating to employment.
- 7. What is Bonus? How it is generally calculated?
- 8. Write the difference between wage and salary.
- 9. Give the meaning of Social Security.
- 10. What do you understand by the term Provident fund?

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Describe the characteristics of Indian Labour.

(or)

- b) Write a short note on Industrialization.
- 12. a) Explain the sections relating to working conditions for the employees in Factories Act.

(or)

- b) Discuss the salient features of Plantation Labour Act.
- 13. a) Explain the important sections of the act which talks about standing orders.

(or)

- b) Give the salient features of contract labour act.
- 14. a) Write a short note on minimum wages act.

(or)

- b) Write the significance of payment of bonus act.
- 15. a) Explain the importance of ESI act.

(or)

b) Discuss the scope of maternity benefit act.

SECTION -C (3X10=30)

Answer any THREE Questions

- 16. Explain the role and functions of a Labour Welfare Officer.
- 17. Write in detail the sections relating to the safety of the workers.
- 18. Explain the role trade unions and its related acts in industries.
- 19. Write an essay on Equal remuneration act.
- 20. Describe the salient features of Payment of gratuity act.

SPECIALISATION PAPER II

MEDICAL AND PSYCHIATRY SPECIALIZATION

YEAR – II	NACNITAL LICALTIL AND COCIAL	CODE: 19PSW32C
SEMESTER – III	MENTAL HEALTH AND SOCIAL WORK	HRS/WEEK: 6
CORE - X	WORK	CREDIT: 4

Course Outcome:

After completing this course, students will:

CO1: Be exposed to the mental health.

CO2: Learn about stress and coping mechanism.

CO3: Gain knowledge about psychiatric assessment.

CO4: Understand the neurotic and psychotic disorder.

CO5: Learn about the childhood disorder.

SEMESTER II	COURSE CODE: TITLE OF THE PAPER: MENTAL HEALTH AND SC			SOCIAL								
	19PSW32C				WORK					HOURS:6	CREDITS:4	
COURSE	PROGRAMME OUTCOMES (PO)				PROGRAMME SPECIFIC OUTCOMES							
OUTCOMES					(PSO)				MEAN SCORE OF			
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	co's	
CO1	4	4	5	4	5	4	4	5	4	5	4.4	
CO2	4	4	4	5	4	4	5	4	4	4	4.2	
CO3	5	4	5	4	4	5	5	4	4	4	4.4	
CO4	4	4	4	3	4	5	5	4	4	4	4.1	
CO5	5	4	5	4	5	5	5	4	4	5	4	4.6
Mean Overall Score					4.34							

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Mental Health: Meaning, Definition. History and Scope of Psychiatric Social Work; Changing Perspective of Psychiatric Social Work; Mental Health and Wellbeing in India. India view of Mental Health and Well Being. Attitudes and Beliefs Pertaining to Mental Illness in Ancient, Medieval and Modern Times.

Unit II

Stress and Coping: Stress and Mental Health Factors influencing Stress among Children, Adolescents, Women, Workers, Elderly and related to Physical Illness, Coping with Stress, Emotions and Crisis.

Unit III

Psychiatric Assessment and Intervention: History Taking and Mental Status Examination, Psycho Social and Multidimensional Assessment of Mental Disorders in Psychiatric Social work. Common Mental Disorders - Symptoms, Causes and Treatment of Neuroses, Psychoses Psycho Physiological Disorders, Personality Disorders - Mental Health Act 1987.

Unit IV

Neurotic and Psychotic Disorder: Anxiety, Phobia, Obsessive Compulsive Disorder, Posttraumatic Stress Disorder and Psycho Somatic Disorder. Alcoholism, Drug abuse and Suicide. Mental Retardation and Alzamirs disease, sexual deviation, epilepsy, culture bound syndrome.

Unit V

Childhood Disorders: Autism and Infantile Schizophrenia, Attention Deficit and Hyperactivity Disorder, Behaviour and Habit Disorder, Disorders associated with Eating, Speech and Sleep, Scholastic backwardness, Identity Crisis. National Mental Health Programmes.

TEXT BOOK:

- 1. A text book of psychiatric, Niraj Ahuja
- 2. K. Park , 2013, Park Text Book of Preventive and Social Medicine, M/S Banarsidas Bhanot Publishers.
- 3. Niraj Ahuja, 2011, A Text Book of Psychiatry, Jaypee Brothers Medical Publishers (pvt) Ltd.
- 4. Randy J. Larsen, David M. Buss, 2011, Personality Psychology, Tata McGraw Hill Edition.

REFERENCES

- 1. Abelin, T. Brzenski and V.D. Car stairs. Measurement in Health Promotion and Protection. Copenhagen: WHO.
- 2. Francis, C. M. 1991. Promotion of Mental Health with Community Participation. Kerala: The Center for Health Care Research and Education.
- 3. Jay, Pee. 1994. Diagnostic and Statistical Manual of Mental Disorders (DSM IV). New Delhi: Oxford Press.
- 4. Bhugra, Gopinath, Vikram Patel, 2005 Handbook of Psychiatry- A South Asian Perspective. Byword Viva Publishers Pvt.Ltd., Mumbai
- 5. WHO, 2004 The ICD-10 Classification of Mental and Behavioral Disorders, Diagnostic Criteria for Research, AITBS Publishers and Distributors, Delhi
- 6. Kappur. M. Sheppard. Child Mental Health-Proceedings of the Indo-US symposium.
- 7. Mane P. & Gandevia K. 1994. Mental Health in India Issues and Concerns; Tata Institute of Social Sciences, Mumbai.
- 8. World Health Organization. Geneva. 1992. The ICD 10 Classification of Mental and Behavioral disorders, Clinical Description and Diagnostic Guidelines; Oxford University. Press

QUESTION PATTERN SECTION – A (10X2=20)

Answer ALL Questions

- 1. What is psychiatric social work?
- 2. What is well being?
- 3. What is mental health?
- 4. What is stress?
- 5. What is neurosis?
- 6. What is psychosis?
- 7. What is drug abuse?
- 8. What is epilepsy?
- 9. What is hyperactivity?
- 10. What is identity crisis?

SECTION - B (5X5=25)

Answer ALL Questions

11. a. What is the scope of psychiatric social work?

(or)

- b. What are the changing trends in psychiatric social work?
- 12. a. What are the stresses among adolescents?

(or)

- b. What are the stresses for women workers?
- 13. a. What are the causes for neuroses?

(or)

- b. Explain the process of multidimensional assessment.
- 14. a. What are the causes for suicidal tendencies?

(or)

- b. What is the treatment for drug abuse?
- 15. a. Explain the symptoms of mental retardation.

(or)

b. Explain the nature of culture bound syndrome.

SECTION -C (3X10=30)

Answer any THREE Questions

- 16. Explain the characteristics of psychiatric social work in India.
- 17. Explain the various causes of stress among different types of people.
- 18. Explain the process of psychiatric assessment with examples.
- 19. Explain the causes, symptoms and treatment for alcoholism.
- 20. Explain the various childhood disorders

YEAR – II	CONCLIDENT FIELD WORK	CODE: PSWF3
SEMESTER – III	CONCURRENT FIELD WORK PRACTICUM - III	HRS: 10
CORE PRACTICAL – III	PRACTICOIVI - III	CREDIT: 4

After completing this course, students will:

CO1: Gain social workers professional knowledge on different settings.

CO2: Learn about human resource management.

CO3: Be exposed on role of medical social worker in hospital settings.

CO4: Understand the community problem.

CO5: Organize group work and community organization programme.

SEMESTER III		COUR	SE CODE	: PSWF3		TITLE OF THE PAPER: CONCURRENT FIELD WORK							
							PRACTICUM – II					CREDITS:4	
COURSE OUTCOMES		PROGRA	AMME O (PO)	UTCOME	S	PROGRAMME SPECIFIC OUTCOMES (PSO) MEAN SCORE OF							
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	1	co's	
CO1	5	4	5	3	5	5	4	3	5	5	4	1.4	
CO2	5	4	5	4	5	5	5	4	5	5	4	1.7	
CO3	5	4	5	4	5	5	5	4	5	5	4	1.7	
CO4	5	4	5	4	5	5	5	4	5	5	4	1.7	
CO5	5	3	5	4	5	5	5	4	5	5	4	1.6	
		-	•	•	М	ean Overall Score			4	.62			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	1 2 3		4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

The second year students during the third semester go for practice based social work for two days in a week and expected to spend a minimum of 15 hours per week in the field. The students are placed in villages or hospitals or schools or NGOs or government offices or counseling centers or welfare organizations or service organization or industries according to their field of specialization for a semester.

During the placement they have to practice all the primary and secondary methods of social work in their respective fields of specialization. During the placement the students are expected to learn about the vision, mission, philosophy, administration, strategies, programmes, activities, achievements and also involve with the activities of the organization to whatever extent possible.

The students also undertake any assignments given to them by the agency, they may also undertake any research for the organization. The community organization programme is being organized by each student to promote extension activities towards different villages, institutions and organizations.

Every week the students write a report of their activities and submit to the concerned field work supervisor. The supervisor conducts individual and group conference every week regularly. At the end of the semester Viva- Voce is conducted by two examiners, one being an external examiner and the other would be the supervisor. 20 marks are being awarded by the internal faculty supervisor, 20 Marks are awarded by the Agency Supervisor and 60 marks are being awarded by the external examiner.

Marks Allotments

Specialization - Community Development

S.	Assigned Work	Internal	External
No		Faculty	External
			Examiner
1	Organization Profile, Group Work, Community	40	
	Organization Programme		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

Specialization – Human Resource Management

S.	Assigned Work	Internal	External
No		Faculty	External
			Examiner
1	Organization Profile, Role of Human Resource	40	
	Management Department, Community Organization		
	Programme		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

Specialization - Medical and Psychiatric

S.	Assigned Work	Internal	External
No		Faculty	External
			Examiner
1	Organization Profile, Case Work, Community	40	
	Organization Programme		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

YEAR – II	NATIONAL SOCIAL WORK	CODE: 19PSWE2
SEMESTER – III	PERSPECTIVES – AN	CDEDIT . 3
EXTENSION – II	ACADEMIC VISIT	CREDIT : 2

National Social Work Perspectives – An Academic Visit is a part and parcel of the field work to training in social work education. It is compulsory for final year students as a part of social work training. Students will be visiting various reputed organization at the national level related to their field of Specialization and understand the functioning of such successful organizations. The students need to prepare the report of the Academic Visit and present it during the Viva. Vice-voce examination is conducted internally for 100 marks. After the Internal Viva-voce, the students are awarded with 2 credits.

Course Outcome:

After completing this course, students will:

CO1: Experience group dynamics.

CO2: Be exposed to the various socio-cultural patterns.

CO3: Understand the functioning of successful organizations.

CO4: gain awareness on Implementation and execution of tasks.

CO5: Be exposed to different atmosphere.

SEMESTER III		COURSE CODE: 19PSWE2				TITLE OF THE PAPER: NATIONAL SOCIAL WORK PERSPECTIVES – AN ACADEMIC VISIT								
											HOURS :	CREDITS:2		
COURSE		PROGR/	AMME O	UTCOME	S		PROGRAMN	1E SPECIFIC (OUTCOMES					
OUTCOMES			(PO)					(PSO)				SCORE OF		
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	С	co's		
CO1	5	3	4	3	5	5	5	4	5	5	4	1.4		
CO2	4	3	4	3	4	4	4	3	3	4	3	3.6		
CO3	5	3	4	3	4	4	4	3	4	4	3	3.8		
CO4	5	5	5	5	5	5	4	4	5	5	4	1.8		
CO5	5	3	4	3	5	5	5	4	5	5	4.4			
		Mean Overall Score							4	1.2				

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Academic Visit Process

The students are involved in the entire planning of the Academic Visit-beginning from the selection of the places for visit, getting prior permission, drafting the schedule for the entire visits & arranging for travel and accommodation. Two faculties would be in charge for the Visit. They would be guiding the students in the whole process of planning and execution and also accompanying them for the visits.

Tasks to be carried out

- 1. Actively take part in the process of planning for the Academic Visit.
- 2. Formation of committees, allocation and execution of concerned responsibilities.
- 3. Respecting individuality and accommodating oneself for the cause of the group.
- 4. Implementing the suggestions and guidance of the Faculty.

Skills to be acquired

Skills in Planning, Organizing, Execution, Group Living, collateral contacting, Rapport Building, Budgeting, Accounting, Time Management, Leadership etc.

YEAR – II	COMPUTER	CODE: 19PSW33
SEMESTER – III	APPLICATION IN SOCIAL	HRS/WEEK: 6
CORE - XI	WORK	CREDIT: 4

After completing this course, students will:

CO1: Be exposed to the fundamentals of computer.

CO2: Gain Knowledge on office applications.

CO3: Understand the usage of SPSS in the field of Social Work research.

CO4: Be capable of creating data file and to develop practical knowledge.

CO5: Be aware of applications of Statistical Calculation.

SEMESTER III		C	OURSE C			TITLE OF THE PAPER: COMPUTER APPLICATION IN SOCIAL WORK				HOURS:5 CREDITS:4		
COURSE OUTCOMES	PROGRAMME OUTCOMES (PO)				PROGRAMME SPECIFIC OUTCOMES (PSO)					SCORE OF		
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	C	o's
CO1	5	3	5	5	3	5	2	4	3	4	Ş	3.9
CO2	5	3	5	5	3	5	2	5	3	4		4
соз	5	3	5	5	3	5	2	5	3	4		4
CO4	5	3	5	5	3	5	2	4	3	4		3.9
CO5	5	3	5	5	3	5	2	4	3	4	3.9	
		•	•		Mean Overall Score					3	.94	

This Course is having **HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Fundamentals of a Computer: Meaning, Characteristics, basic operations – input, storage, processing, output, ALU and control. Devices of a computer hard ware, software, types of software – application, system, utility. Meaning of programme. Computer language – machine, assembly high level. Assembler, interpreter and compiler, operating system.

Unit II

Office Applications: MS Office (MS Word, MS Excel or Spreadsheets, PowerPoint. Internet and browsing E-Mail, Use of Internet in Research. Practicals – creating document, excel, power point and mail merge.

Unit III

Statistical Package for Social Science: Basics of Statistical analysis – population, sample, case, case number, variable, variable level, types of variable – numeric, string, alphanumeric, system missing value, user defined missing value, code book and code sheet, types of statistics, statistical tests, types of analysis. Structure of SPSS windows.

Unit IV

Creating data file, syntax file and output file: Defining data, Variable name, Variable label Values, value labels. Editing data file, adding cases, adding variables, saving files, retrieving data files, printing data file. Recoding of data. Practicals — creating data file, syntax file, Output file, Recoding of Data. Exporting output file to Ms-Word.

Unit V

Analysis of data: Univariate and Bivariate Analysis, charts and diagrams. Editing of table and charts, exporting tables and charts in Word document. Interpretation of data, Application of Statistical Calculation and Test, Measurement of Central Tendency, Dispersion, 't' test, Chi-square Test. Application of Correlation, Regression. ANOVA. Practicals – Creating frequency table, Cross tables, Charts, Statistical tests – Chi square test, t test.

TEXT BOOK:

- 1. Saxena, Sanjay. 1999. A First Course in Computers. Vikas Publishing House Pvt. Ltd. New Delhi.
- 2. Fundamentals of Computers, V. Rajaraman, Eastern Economy Edition, 2001
- 3. Computer Applications in Business, Alexis Leon, Vijay Nicole imprints Pvt Ltd, 2013
- 4. Computer Literacy Programme (CLP), Vijay Nicole Imprints Private Ltd, 2011
- 5. UGC NET Tutor Social Work, Arihant Publications New Delhi,2014

REFERENCES:

- 1. Foster, J.J. 1998. Data Analysis Using SPSS for Windows. Sage Publications Ltd. London.
- 2. Kelle, V. 1998. Computer Aided Qualitative Data Analysis. Theory, Methods and Practice. Sage Publications Ltd. London.
- 3. Mansfield, Ron. 1997. The Compact Guide to Microsoft Office Professional. Sybex Computer Books Inc. USA.
- 4. Saxena, Sanjay. 1999. A First Course in Computers. Vikas Publishing House Pvt. Ltd. New Delhi.
- 5. Singh and Singh. 1998. Windows 95 Illustrated. Asian Publishers. New Delhi.
- 6. Spencer, D.D. 1998. The Illustrated Computer Dictionary. Bell and Howell Company. USA.
- 7. Sundarajan, K. 1998. Internet. Kandadasan Pathippagam. Chennai.
- 8. Taxali, R.K. 1998. PC Software for Windows Made Simple. Tata MC Graw-Hill Publishing Company Ltd. New Delhi.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. What are the fundamentals of computer?
- 2. What is input?
- 3. What is OS?
- 4. Mention any two features of word processing?
- 5. What are the uses of power point?
- 6. What is SPSS?
- 7. What is variable?
- 8. What is data?
- 9. What is analysis?
- 10. What is't' Test?

SECTION – B (5X5=25)

Answer ALL Questions

11. a. Explain the devices of Computer?

(or)

- b. What is windows in Computer?
- 12. a. How will u create a structure in window?

(or)

- b. What are the uses of windows Excel?
- 13. a. Explain about Samples?

(or)

- b. What are the types of analysis?
- 14. a. How will you create a data file?

(or)

- b. How will you export a file to MS-Word?
- 15. a. What is Chi-Square test?

(or)

b. What is interpretation of data?

SECTION – C (3X10=30)

Answer any THREE Questions

- 16. Explain the fundamentals of computer?
- 17. Explain the presentation packages?
- 18. Explain variables and its types?
- 19. What is recording of data?
- 20. Explain the following; regression, correlation, ANOVA?

VEAR _ II		CODE:
YEAR – II	CORPORATE SOCIAL RESPONSIBILITY	19PSW33A
SEMESTER – III	& SOCIAL ENTERPRENEURSHIP	HRS/WEEK: 4
CORE PAPER - XVII (B)		CREDIT: 2

After completing this course, students will:

CO1: Understand the concept of CSR.

CO2: Be exposed to the CSR implementation.

CO3: Understand CSR in different settings.

CO4: Learn the models in CSR. **CO5:** Gained the CSR guidelines.

SEMESTER III	R III COURSE CODE: 19PSW33A TITLE OF THE PAPER: CORPORATE SOCIAL RESPONSIBILITY & SOCIAL ENTERPRENEURSHIP						HOURS:4	CREDITS:2						
COURSE OUTCOMES		PROGRAMME OUTCOMES (PO)					PROGRAMME SPECIFIC OUTCOMES (PSO)					MEAN SCORE OF		
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S			
CO1	5	4	4	4	4	4	3	4	4	4		4		
CO2	5	4	5	4	4	5	4	4	5	4	4	1.4		
CO3	5	4	5	4	5	5	4	4	4	4	4	1.4		
CO4	5	4	4	4	4	5	4	5	4	4	4.3			
CO5	5	4	5	5	4	5	3	3 4 4 4						
	Mean Overall Score									4	.28			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

ELECTIVE - III

UNIT - I

Corporate Social Responsibility Definition, Concepts, Overview of Corporate Social Responsibility, Concentration areas; Needs to be Social responsibility; Corporate Social Responsibility in Indian context and International; Business ethics and Corporate Social Responsibility; Phases of CSR. Legal Provisions and

specification on CSR; Difference between CSR and CSI (Corporate Social Initiatives)

UNIT - II

Skills and Techniques in CSR Corporate Community Participation and Role and Skills of Social Worker in CSR; Corporate Perspective on building successful partnership; Tools and Techniques; Roles and skills: Advocacy, Administration, Marketing, Mediating, Budgeting, Organizing, Documenting, Presenting, Public speaking, Teaching, Supervising and Reporting..

UNIT-III

Case Studies of Successful CSR Initiative AMM Foundation, Bajaj Auto, Coca – Cola India, NLC, Hindustan Lever, Infosys, Wipro, Ranbaxy, TATA, LXT, Titan, TVS, MRF, Saint Gobain, Orchid and ACC. Implementation of CSR in Market place and Work place, CSR in the Communities, CSR in the ecological environment.

UNIT-IV

Social Entrepreneurship Concept, Definition, Importance of Social Enterprise and Entrepreneurship; Social Entrepreneurship and Business Entrepreneurship; Social Entrepreneurs and Social Change; Types of Social Enterprises; Growth and Performance of Social Enterprises in India; Relationship between Social Enterprise, State and Civil Society.

UNIT-V

Mobilizing and Managing Capital for Social Enterprises Aid agencies; Government, Corporate and Community support; Financial accountability; Marketing of Social Services; Application of marketing principles in Welfare and Development field; Select case studies of Indian Social Enterprises and Entrepreneurs such as Ela Bhatt, M.S.Swaminathan, Vargeese Kurien, Aruna Roy, and Rajinder Singh.

References:

- 1. Crane A et al., 2008, The Oxford Hand Book on CSR, New York, Oxford University press Inc.
- 2. The business of social responsibility Harsh Shrivastava, books for change, Bangalore, Yr 2000
- 3. Corporate social responsibility concepts and cases, CV. Baxi, yr 2005.
- 4. Global strategic management, Dr. M. Mahmoudi, Deep & Deep Publications Pvt. Ltd, Delhi yr.2005
- 5. International Human resource management Global perspective, SK. Bhatia, Deep & Deep Publications Pvt. Ltd., Delhi, yr.2005.
- 6. David Bornstein, (2007) how to change the world, social entrepreneurs and the power of New Ideas, Oxford university Press
- 7. Alex Nichollls, 2006, social Entrepreneurship: New models of Sustainable Social change, Oxford university Press.
- 8. Peter Drucker, 1990, Managing the Non-Profit organizations, Practices NAD Principles, Harapercollins.

YEAR – II		CODE: 19SPS34A
SEMESTER -III	CHILD WELFARE AND SOCIAL WORK	CDEDITS: 2
SELF STUDY- I (A)		CREDITS: 2

After completing this course, students will:

CO1: Understand basic theoretical knowledge on child welfare concepts and Institution working for child Welfare

CO2: Equip them with the knowledge on welfare services of children

CO3: Be enabled to work in the different field based legislations related to children

CO 4: Create knowledge on various issues related to children

CO5: Address the problems of women and children

SEMESTER III		COURSI	E CODE:	19SPS34/	4	TITLE O	F THE PAPER	R: CHILD WE	LFARE AND	SOCIAL			
								WORK			HOURS:	CREDITS:2	
COURSE		PROGRA	AMME O	UTCOME	S		PROGRAMME SPECIFIC OUTCOMES						
OUTCOMES	(PO)				(PSO)					MEAN SCORE OF			
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	5	4	5	5	4	5	5	4	4	5	4.6		
CO2	5	4	5	4	4	5	5	4	4	5	4	1.5	
CO3	5	4	5	4	4	5	5	4	4	5	4	1.5	
CO4	5	4	5	4	4	5	4	4	4	5	4	1.4	
CO5	4	4	4	5	4	5 4 4 4 5				4	1.3		
	Mean Overall Score								4	.46			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Child: meaning, demographic profile of children in India – rural & urban, its place in family and society; status of girl child; concept of socialisation; factors influencing socialisation; role of family in socialisation; parental socialization during childhood and adolescence; role of peers in socialisation, role of school in socialisation; impact of television on children.

Unit II

Problems of Children: childhood diseases and immunization; behaviour disorders of children; causes, consequences and prevention of child malnutrition, nutritional disorders, neglected children and abused children, child workers, child trafficking, child prostitution, HIV/AIDS affected and infected children

Unit III

Child Education and Problems: Children with disabilities, School dropouts; Rural – Urban and gender differences – Problems in school settings. School Social Work: Concept, Need, Objectives, and Functions. – Child friendly schools initiative. Child Participation.

Unit IV

Internationals and National instruments to promote and protect rights of children United Nations Charter of Children's Rights and Constitutional directives, Child welfare policies and programmes for children. Legislations relevant for protecting the rights of children-The Children (Pledging of Labour) Act 1935 - Employment of Children Act, 1938 – Minimum Wages Act 1948 - Child Labour (Prohibition and Regulation) Act 1986 – Juvenile Justice Act 2001.

Unit V

Role and Functions of Professional Social worker in Family setting, Institutional settings, Child Guidance Clinic, Children's hospital, Foster care and adoption, Rehabilitation settings. Child help line services, School Social work — Current research studies in India on Child Rights, Child related services and issues — Specific skills required for Social Work intervention with the children.

TEXT BOOK:

1. Chowdhry, Paul D (2000): Child Welfare Manual, Atma Ram & Sons Publishers, New Delhi.

REFERENCES

- 1. Bhat, Bilal (2011): Rehabilitation of Child Labour: Problems and Prospects. Shipra Publications, Delhi.
- 2. Chowdhry, Paul D (2000): Child Welfare Manual, Atma Ram & Sons Publishers, New Delhi.
- 3. Deb, Sibnath and Aparna Mukherjee (2009): Impact of Sexual Abuse on Mental Health of Children. Concept Publishing Company, New Delhi.
- 4. Goonesekere, Savitri (2000): Children, Law and Justice: A South Asian Perspective. Sage Publication, New Delhi.
- 5. Lieten, G. K., (2004). Working children around the world: Child rights and child reality. Institute for Human Development, New Delhi and IREWOC Foundation, Amsterdam.

YEAR – II	CARING THE PERSONS WITH	CODE: 19SPS34B
SEMESTER -III	DISABILITIES	CDEDITS: 2
SELF STUDY- I (B)	DISABILITIES	CREDITS: 2

After completing this course, students will:

CO1: Identify forms of disabilities.

CO2: Learn to diagnose and assess the functional abilities.

CO3: Be exposed to rehabilitative measure.

CO4: Understand the approaches in rehabilitation.

CO5: Be determined to the role of the social worker in this setting.

SEMESTER III		COURSI	E CODE:	19SPS34	В	TITLE C	F THE PAPE	R: CARING T	HE PERSONS	WITH		
							ı		HOURS:	CREDITS:2		
COURSE	OUTCOMES (PO)				PROGRAMN	/IE SPECIFIC	OUTCOMES					
					(PSO)					MEAN SCORE OF		
(CO)	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	J	:O'S	
CO1	5	4	5	4	5	5	5	4	4	5	4.6	
CO2	5	4	5	4	4	5	4	5	4	4		4.4
CO3	4	4	4	3	5	4	5	4	4	4		4.1
CO4	5	4	4	4	3	5	5	4	3	4	4.1	
CO5	5	4	4	5	4	4 4 3 3 4						4
	Mean Overall Score									4	.24	

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Definition of impairment, Disability, handicap: Types of various Disabilities: magnitude, Causes and consequences.

Unit II

Identification, Assessment of functional abilities and differential diagnosis. Myths and misconceptions, societal attitudes, reactions of parents, family members and ways of coping. Prevention of disabilities at primary, secondary

and Tertiary levels, Intervention strategies at individual, family and community levels.

Unit III

Agencies involved in the field of rehabilitations, Multidisciplinary rehabilitation team and their roles, Educational Institutes, Vocational Rehabilitation centers, State and Central Government Agencies, National and International non-governmental organizations, (AICB, NAB &CBM etc.) National policies and welfare programmes.

Unit IV

Accessibility and Assistive devices, Accessible India Campaign, Inclusive India campaign, CBR, (Community based rehabilitation).

Unit V

Acts related to Persons with disabilities. Persons with Disability Act-2016, Rehabilitation Council of India Act-1992, National Trust Act-1999, United Nation Convention on the Rights of Persons with Disabilities (UNCRPD)

TEXT BOOK:

1. Albrecht G.L, et al (2001) Hand Book of disability Studies, Sage, London

REFERENCES:

- 1. Albrecht G.L, et al (2001) Hand Book of disability Studies, Sage, London
- 2. Blaxter M. (1976), The meaning of disability: A sociological study of impairment, London: Heinemann.
- 3. Grant, (2005) Learning disability: A lifecycle approach to valuing people, Open University Press, London
- 4. Handbook on Assistive Devices and Technology: CBM India Trust
- 5. Hegarty Seamus & MithuAlur, (2002) Education and Children with special needs, sage, London,
- 6. Karanth, Pratibha& Joe Rozario, (2003) Learning disability in India, Sage, London
- 7. Mani M.N.G & Jaiganesh.M.B, (2010). Source Book on disability, Coimbatore: UDIS Forum.
- 8. Moore, (2005) Researching disability issues, Open University Press, London.
- 9. Samus, H & Patri. A (eds) (2005) Women disability and identity, New Delhi: sage publications.

YEAR – II		CODE: 19SPS34C
SEMESTER -III	HOSPITAL ADMINISTRATION	CDEDITS: 2
SELF STUDY – I (C)		CREDITS: 2

After completing this course, students will:

CO1: Be clear about the hospital and its classification.

CO2: Be exposed to planning and process.

CO3: Understand the hospital administration.

CO4: Understand the staffing and recruitment process.

CO5: Gain knowledge on hospital budgeting.

SEMESTER III		COURS	E CODE:	19SPS340	С	TITLE C	F THE PAPE	R: HOSPITAL	ADMINISTR	ATION			
											HOURS : - CREDITS: 2		
COURSE OUTCOMES		PROGRA	AMME O (PO)	UTCOME	S	PROGRAMME SPECIFIC OUTCOMES (PSO)					MEAN SCORE OF		
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	4	2	5	3	5	5	4	3	4	5	4		
CO2	5	3	5	4	5	5	5	4	4	4		4.4	
CO3	5	3	5	4	5	5	5	3	5	5		4.5	
CO4	5	3	5	4	5	5	5	3	5	5	4.5		
CO5	4	3	4	4	4	5 4 3 4 5						4	
	Mean Overall Score								4	.28			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Meaning of hospital, Evaluation of Hospital from charity to modern hospital classification of hospitals, General, special, public, Trust, Teaching-cum Research Hospital, Small or Large Size Hospital.

Unit II

Planning a Hospital, The planning Process, Choosing a Site, Location and Access, Building Space Utilization, Physical Facilities residential facilities

requirements of various types of wards, out patients services and in-patients services emergency services in Hospital - Medico legal case - Different departments required in the hospital.

Unit III

Hospital Administration -Meaning, Nature and Scope Management of Hospitals- principles of Management need for Scientific management . Human resource management in Hospital personnel policies - Condition of Employment Promotional and Transfers - Performance appraisal. Working hours levels rules and benefits - safety conditions - salary and wages policies, Training and development.

Unit IV

Staffing the hospital - selection and requirement of medical professional and technical staff -social workers -physiotherapist and occupational therapist Pharmacist - Radiographers - Lab technicians - dieticians - records officers - mechanics - electricians. Roles of Medical Records in Hospital Administration Content and their needs in the patient care system.

Unit V

Hospital Budget - Department budget as a first step - specific elements of a department at budget including staff salary - supply cost- projected replacement of equipment - energy expenditures - contingency funds. Uses of computers in Hospital purchase centralization Shared Building system purchase agreements.

TEXT BOOK:

1. Benjamin Rober-t, et al 1983, Hospital Administration Desk Book Newjerky Prentice hall

REFERENCES

- 1. Benjamin Rober-t, et al 1983, Hospital Administration Desk Book Newjerky Prentice hall
- 2. Davies r lawelyn eta -1966, Hospital planning & administration Geneva WHO
- 3. Goal S L 1981, Health care Administration A Text Book New Delhi Steling Publishers Pvt.
- 4. Rabick & Jonathan etal 1983, Hospital Organization and Management London Spectrum Publishers. 5. Who Expert Committee 1975, Role of Hospital in programme of Community health protection WHO technical Report service.
- 5. WHO Expert Committee 1968 Hospital Administration WHO technical Report Services No.395.

YEAR – II		CODE: 19SPS34D
SEMESTER -III	WORKING WITH ELDERLY	CDEDITS: 2
SELF STUDY – I (D)		CREDITS: 2

After completing this course, students will:

CO1: Understand the functions and theories of ageing.

CO2: Learn about the policies and Programme for the elder people.

CO3: Be exposed to family context and relationship.

CO4: Understand the kinds of service rendered to the aged people.

CO5: Be Determined to the family intervention techniques.

SEMESTER III		COURS	E CODE:	19SPS34I)	TITLE	OF THE PAP	ER: WORKIN	IG WITH ELD	ERLY			
											HOURS: CREDITS:2		
COURSE OUTCOMES	PROGRAMME OUTCOMES (PO)						PROGRAMME SPECIFIC OUTCOMES					MEAN SCORE OF	
			(FO)				(PSO)						
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	4	4	5	4	5	5	5	4	4	5	4.5		
CO2	5	4	5	4	4	5	5	4	3	4		4.3	
CO3	4	4	4	3	4	4	5	4	4	4		4	
CO4	4	3	4	3	4	5	4	4	5	4		4	
CO5	5	4	4	3	4	5	4	4	3	4	4		
	Mean Overall Score									4	.16		

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Ageing: Definition, Concept— Dimensions of Ageing: Physiological, Psychological, Social and Functional — Theories of Ageing: Biological, Psychological & Social. Problems of Ageing: Social, Economic and Psychological—Demographic Aspects of Population, Ageing-National and International Trends — Status of the Aged in India — Ageing and Development.

Unit II

Policies and Programmes:UN- Principles, International Plan of Action and Programme on Ageing. Government Policies and Programmes and welfare Schemes for the Elderly in India

Unit III

Family Context— Intimate Ties/Partnership in Later Life, Transitions in Marital Status: Widowhood, Divorce and Remarriage, Inter-Generational Relations: Common Medical and Psychiatric Problems of Old age, Institutionalisation and Related Problems.

Unit IV

Services for the Aged: Geriatric Clinics, Old Age Homes, Facilities& Services for the Terminally III, Recreational Centres, Day Care Centre, Information and Referral Services, Preventive and Supportive Services.

Unit V

Application of CW, GW, Research & CO with Elderly: Gerontology and geriatrics, Case Work, Group Work, Research and Counselling. Family Intervention Techniques, Health Promotion, Disability Management, Role of Social Workers

TEXT BOOK:

1. Gerontological SocialWork in India: Some Issues & Perspectives / Edited by Desai Murli&Raju Siva, 2000.

REFERENCES

- 1. Bob G Knight, Psychotherapy with Older Adults, Sage, New Delhi, 2004.
- 2. Gerontological SocialWork in India: Some Issues & Perspectives / Edited by Desai Murli&Raju Siva, 2000.
- 3. IrudhayaRajan,S., Mishra,U.S,: India's Elderly Burden or Challenge, SankaraSarma, P. Sage, New Delhi, 1999.
- 4. KumudiniDandekar, TheElderly in India, Sage, New Delhi, 1996.
- 5. Ward, The Ageing Experience: An introduction to Social Gerontology, Harpen&Rere New York, 1984.

YEAR – II		CODE: 19SPS34E
SEMESTER -III	WOMEN AND DEVELOPMENT	CREDITS: 2
SELF STUDY – I (E)		CREDITS: 2

After completing this course, students will:

CO1: Understand the functions of women development.

CO2: Learn the importance of women education.

CO3: Be exposed to gender analysis and relationship.

CO4: Understand the women problems and circumstances.

CO5: Be aware of the role of state and national level commission in women's development.

SEMESTER III		COURS	E CODE:	19SPS34	E	TITLE O	F THE PAPER	: WOMEN A	ND DEVELO	PMENT			
											HOURS: CREDITS:2		
COURSE		PROGRAMME OUTCOMES PROGRAMME SPECIFIC OUTCOMES											
OUTCOMES			(PO)				(PSO)			MEAN SCORE OF			
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	4	4	4	3	4	4	5	3	4	4		3.9	
CO2	4	4	5	4	3	4	4	3	4	4		3.9	
CO3	4	3	4	4	3	5	4	3	4	4		3.8	
CO4	4	3	5	4	3	4	4	4	4	4		3.9	
CO5	4	4	5	4	4	5 4 3 4 4				4		4.1	
		Mean Overall Score								(3.98		

This Course is having **HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Concept of development with reference to women: Women in development, women and development, Gender in development – meaning, strategic and practical needs, Patriarchy and patriarchal structures in India. Feminism and its types. Women's movements.

Unit II

Education: Differences between male and female children in enrolment and educational achievement, problems in education of the girl child, participation in higher education; NGO and Government efforts to improve women's education. Employment: work participation of women, trends, exploitation of women, multiple roles of women. Health issues of women in India: Health problems, maternal health, maternal mortality, family planning choices and access to health services. HIV/AIDS and impact on women in India.

Unit III

Gender analysis and its framework: Moser Framework, Social Relations Framework (SRF) (Kabeer), Harvard Framework, Gender Analysis Matrix (Parker), Women's Empowerment Framework (Longwe). Gender Census, Sex Ratio, WID, WAD, GAD. Gender Mainstreaming, Gender budgeting. Self Help Groups: benefits, procedures and best practices.

Unit IV

Women in difficult circumstances: sex work, female headed households, women and displacement, women and disasters or riots and war, violence against women, transgender. Legal rights of women (salient features only): Marriage, divorce, maintenance, inheritance, adoption, employment, maternity benefits.

Unit V

International conventions and efforts: CEDAW, Beijing Conference, International organizations and policies. Development programmes for women - Government policies and programmes for women-State and Center; Constitutional provisions; reservations for women. Best practices, Conventions, Committees, Policies and programmes. Role of National and State Women's Commissions

TEXT BOOK:

1. Kanhere U S (1995) Women and Socialization, Mittal Publishers, New Delhi

REFERENCES

- 1. Bhasin, K (1984), Women and media analysis, alternatives and actions, Kali for Women, New Delhi
- 2. Blumberg and Dwaraki (1980), India's educated women : options and constraints, Hindustan Publishing corporation, New Delhi
- 3. Devendar, Kiran (1985), Status and position of women in India, Shakthi Books, New Delhi
- 4. Hamilton r (1992) The liberation of women: a study of patriarchy, George Allen and Unwin, London
- 5. ICSSR (1985) Status of women in India- report of the National Commission, Allied publishers, New Delhi
- 6. Kanhere U S (1995) Women and Socialization, Mittal Publishers, New Delhi
- 7. Kaushik, Susheela (1993) Women's Oppression: patterns and perspective, Shakti Books, New Delhi
- 8. LWF (1990) Women's Human Rights, Lutheran World Foundation, Geneva.
- 9. Neera Desai (1987) Women and society in India, Ajanta Publications, New Delhi
- 10.Usha Rao (1983), Women in Development Society, Ashish Publishing house, New Delhi.

YEAR – II		CODE: 19SPS34F
SEMESTER -III	COMPENSATION MANAGEMENT	CDEDITS: 2
SELF STUDY – I (F)		CREDITS: 2

After completing this course, students will:

CO1: Understand the meaning of compensation.

CO2: Learn the managing compensation and its structure. **CO3:** Be exposed to employer compensation and bonus.

CO4: Understand to manage the employee benefits.

CO5: Be aware of the employee benefits.

SEMESTER III		COURS	E CODE:	19SPS34I	=	TITLE OF	THE PAPER:	COMPENSA	TION MANA	GEMENT			
										HOURS:	CREDITS:2		
COURSE		PROGRAMME OUTCOMES					PROGRAMME SPECIFIC OUTCOMES						
OUTCOMES			(PO)				(PSO)					MEAN SCORE OF	
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	4	3	4	4	3	4	3	4	4	3	3.6		
CO2	4	3	4	3	4	4	4	3	4	3	;	3.6	
CO3	4	3	4	4	3	4	3	4	4	4	;	3.7	
CO4	4	3	4	4	4	3	4	4	3	4	;	3.7	
CO5	4	4	4	3	4	4 4 3 4 4				;	3.8		
	Mean Overall Score								3	.68			

This Course is having **HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Introduction: Compensation meaning, objectives, nature of compensation, types of compensations, compensation responsibilities, Compensation system design issues: Compensations Philosophies, compensation approaches, decision about compensation, compensation- base to pay, individual Vs team rewards, Perceptions of pay Fairness, legal constraints on pay systems.

Unit II

Managing Compensation: Strategic Compensation planning, determining compensation-the wage mix, Development of a Base Pay System: Job evaluation systems, the compensation structure- Wage and salary surveys, the wage curve, pay grades and rate ranges, preparing salary matrix, government regulation on compensation, fixing pay, significant compensation issues, Compensation as a retention strategy

Unit III

Variable Pay and Executive Compensation: Strategic reasons for Incentive plans, administering incentive plans, Individual incentive plans-Piecework, Standard hour plan, Bonuses, Merit Pay, Group incentive plans- Team compensation, Gain sharing incentive Plans, Enterprise incentive plans- Profit Sharing plans, Stock Options, ESOPs, executive compensation elements of executive compensation and its management, International compensation Management.

Unit IV

Managing Employee Benefits: Benefits- meaning, strategic perspectives on benefits-goals for benefits, benefits need analysis, funding benefits, benchmarking benefit schemes, nature and types of benefits, Employee benefits programs- security benefits, retirement security benefits, health care benefits, time-off benefits, benefits administration

Unit V

Employee benefits required by law, discretionary major employee benefits, creating a work life setting, employee services- designing a benefits package.

TEXT BOOK:

1. B. D. Singh (2017), "Compensation and Reward Management" published by Excel Books, ISBN-13: 978-9350626313

REFERENCES:

- 1. B. D. Singh (2017), "Compensation and Reward Management" published by Excel Books, ISBN-13: 978-9350626313
- 2. Biswanath Ghosh (2012), "Compensation and Reward Management" published by Sterling Publishers Pvt.Ltd, ISBN-13: 978-8120777422
- 3. Dr. Kanchan Bhatia(2014), "Compensation Management" published by Himalaya Publishing House, ISBN-13: 978-9352022151
- 4. Henderson (2007), "Compensation Management in a Knowledge based World" published by Pearson Education India, ISBN-13: 978-8131711101
- 5. J. Martocchio Joseph (2018), "Strategic Compensation: A Human Resource Management Approach" published by Pearson Education, ISBN-13: 978-9332584839

SPECIALISATION PAPER III

COMMUNITY DEVELOPMENT SPECIALISATION

YEAR – II		CODE: 19PSW41A
SEMESTER – IV	PROJECT MANAGEMENT	HRS/WEEK: 6
CORE – XII		CREDIT: 4

Course Outcomes:

After completing this course, students will:

CO1: Learn the concept of project cycle management.

CO2: Understand the project identification and implementation.

CO3: Be aware of project design.

CO4: Understand the CSR.

CO5: Determine the role of central and state governments in advocacy.

SEMESTER IV		C	OURSE C	ODE:		TITLE	OF THE PAI	PER: PROJEC	T MANAGEM	ENT			
			19PSW4	11A								CREDITS:4	
COURSE		PROGRAMME OUTCOMES					PROGRAMN	/IE SPECIFIC	OUTCOMES				
OUTCOMES			(PO)			(PSO)						SCORE OF	
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	co's		
CO1	5	3	5	3	4	5	4	5	4	4	4.2		
CO2	5	3	5	3	5	5	4	5	4	5		4.4	
CO3	5	3	5	3	5	5	4	5	4	5		4.4	
CO4	5	4	5	3	5	5	4	4	4	5		4.4	
CO5	5	3	5	3	4	5 4 4 4 4					4.1		
	Mean Overall Score									4.3			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Planning – Meaning, Process, Reasons, Usefulness, Types, Barriers, Importance. Development Cycle in Planning – Existing Development Cycle and Desired Development cycle. Project Cycle – Meaning, Phases – Identification, Design, Implementation, Evaluation. Project Cycle Management – Meaning and the Importance. Concept Note – Meaning, Outline.

Unit II

Project Identification – Need Assessment, Tools for Need Assessment – Listening, Interviewing, Focus Groups, Community Mapping, Priority Fixing. Capacity Assessment – Meaning, Types of Assets in Capacity Assessment. Assets and Capacity. Appreciative Inquiry – Discover, Dream, Design and Deliver.

Unit III

Project design – Meaning. Process of Project Designing – Stakeholder Analysis, Research including Problem Analysis, Log Frame, Risk Analysis, Action Planning, Budgeting. Implementation – Meaning, Phases, Factors Affecting the Implementation. Monitoring Reviewing and Evaluation – Meaning, Purposes, Differences, Indicators, Reporting

Unit IV

Corporate Social Responsibility – Meaning, Importance, Theory and Models of CSR. Social Auditing – Meaning, Uses, Principles, Stages – Social Book Keeping, Social Accounting and Social Auditing. Methodology and Process of Social Auditing.

Unit V

Advocacy: Meaning, Approach, Role and Practice; National & International Funding Agencies; State and Central Government Projects; Project Proposal Writing.

TEXT BOOK:

- 1. Blackman, Rachel. 2003. Project Cycle Management. UK: Tearfund.
- 2. Text Book of Project Cycle Management, Gopala Krishnan. P, V.E Ramamoorthy, Trinity Publications, 2014
- 3. Project Management 2nd Edition, Thomas Ericson, Global Academic Publishers and Distributors, New Delhi, 2015
- 4. Project Cycle Management 3rd Edition, Harwey Maylor, Dorling Kindersley Private Limited Noida, 2012
- 5. Project Management, Vasanth Desai, Himalaya Publishing House, Private Limited, Mumbai

REFERENCES:

- 1. Blackman, Rachel. 2003. Project Cycle Management. UK: Tearfund.
- 2. Crooks, Bill. 2003. Capacity Self Assessment. UK: Tearfund.
- 3. Desai, Vasanth. 1988. Rural Development. Vol. I to VI. Bombay: Himalaya Publishing House.
- 4. Gordon, Graham. 2002. Practical Action in Advocacy. UK: Tear fund
- 5. Gordon, Graham. 2002. Understanding Advocacy. UK: Tear fund
- 6. Kadekodi, G.K. and K. Chopra. 1999. Operationalising Sustainable Development New Delhi: Sage Publications. India Pvt. Ltd.
- 7. Pareek, Udai. 1982. Education and Rural Development in Asia. Oxford and IBH Publications. New Delhi.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. What is planning?
- 2. What is concept note?
- 3. What is need assessment?
- 4. What is capacity assessment?
- 5. Mention any two examples for indicators of a project.
- 6. What is stake holder analysis?
- 7. What is social auditing?
- 8. What is social book keeping?
- 9. Mention any two roles of advocacy.
- 10. What is advocacy?

SECTION - B (5X5=25)

Answer ALL Questions

11.a) Explain the various types of planning.

(or)

- b) Explain the importance of project cycle management.
- 12. a) Explain the process if capacity assessment.

(or)

- b) Give details of appreciative inquiry.
- 13. a) Explain the process of project designing.

(or)

- b) Explain the process of project evaluation.
- 14. a) Explain the theory and models of CSR.

(or)

- b) Explain the process of social auditing.
- 15. a) Explain the uses of advocacy for development work.

(or)

b) Explain the process of advocacy cycle.

SECTION - C (3X10=30)

Answer any THREE Questions

- 16. Explain the project cycle phases with examples.
- 17. Explain the process of need assessment with examples.
- 18. Explain the implementation of project with details.
- 19. Explain the nature of CSR project of any one of the leading industries.
- 20. Explain the importance of advocacy with an example.

SPECIALISATION PAPER – III

HUMAN RESOURCE MANAGEMENT SPECIALISATION

YEAR – II		CODE: 19PSW41B
SEMESTER – IV	ORGANIZATIONAL BEHAVIOUR	HRS/WEEK: 6
CORE – XII		CREDIT: 4

Course Outcomes:

After completing this course, students will:

CO1: Understand the concept of organizational behaviour.

CO2: Learn the process of organizational development.

CO3: Be exposed to organization and personal behaviour.

CO4: Understand the group behavior at work place.

CO5: Be aware of role of behavioral scientist in industry.

SEMESTER IV	COURSE CODE:			TITLE OF THE PAPER: ORGANIZATIONAL BEHAVIOUR				HOURS 6	CDEDITC 4			
COURSE OUTCOMES (CO)	19PSW41B PROGRAMME OUTCOMES (PO)				PROGRAMME SPECIFIC OUTCOMES (PSO)					MEAN SCORE OF		
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	co's	
CO1	5	4	5	4	5	5	5	4	5	5	4.7	
CO2	5	4	5	4	3	5	5	3	5	5	4.4	
CO3	5	4	5	3	5	5	5	4	5	5	4.6	
CO4	5	4	5	4	5	5	5	4	5	5	4.7	
CO5	5	4	5	4	5	5	5	4	5	5	4	1.7
Mean Overall Score					•	4.62						

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Organizational Behaviour: Brief History, Definition, Characteristics, and Models. Contributions of the Behavioral Sciences. Human Behaviour at Work: Theories of Motivation – Motivating Humans – Systems Theory, Emotional quotient at Work. Emerging perspectives on Organization Behavior – Dimensions of Organization Behavior.

Unit II

Inter-Personal and Intra-Personal behavior: Physical and intellectual ability, Emotional Intelligence, Attitude, Job Satisfaction, Job Involvement and organizational commitment, Personality, Perception, Assertiveness, Learning: Process and Theories, Transactional Analysis, Johari window. Motivation: Concept, theories and Techniques. Morale: Meaning and importance, Factors, Measures and techniques of promoting positive morale.

Unit III

Foundation of Group Behaviour at Workplace: Concept, Types of Groups, Group Structure, Group Dynamics: Decision Making, Team work, Communication, Leadership - Meaning, Roles, Skills, Styles, Theories, Types of Leadership, Power and Politics - Quality of work life – Work Life Balance – Employee Empowerment and Employee Engagement.

Unit IV

Organizational Conflict: Concepts, causes and types — Conflict resolution strategies. Organizational change: Concept, forces of change and resistance to change, Managing organizational change and diversity. Organizational Culture and Climate. Organizational Development: Concept, Definition, theories and practice: Organizational Development and Organizational Behaviour, OD Intervention techniques: Sensitivity Training. Quality Circles. Survey Feedback, Management of change. Individual behaviour, Foundations of individual behaviour.

Unit V

Organizational Dynamics: Stress and Burn Out: Concepts, Causes, Consequences - Coping mechanism and strategies. Gender Sensitivity. Dysfunctional Behaviours: Absenteeism, Alcoholism, Fatigue, Monotony, Accidents and Boredom; Role of Behavioural Scientist in Industry. Employee Coaching and Mentoring. Employee Counselling: Concept, objectives, need, functions, techniques and advantages.

TEXT BOOK:

- 1. Organizational behaviour, 9th edition, M C Graw hill, India, 2002.
- 2. Personnel and Human Resource Management, P. Subha Rao, Himalaya Publishing House, 2016.

- 3. Organizational Behaviour, Dr. S. S. Khanka, S. Chand Company Pvt, Ltd 2008
- 4. Organizational Behaviour Human Behaviour at Work, John W. Newstorm, Tata Mc Graw Hill, 2007
- 5. Organizational Behaviour, Fred Luthans, Mc Graw Hill International Edition 2011

REFERENCES:

- 1. Aswathappa K. 2012. Organizational behaviour. Mumbai : Himalaya Publication house. Mumbai.
- 2. Management of Organizational Behaviour Utilizing Human Resource, Paul Hersey Kenneth H. Blanchard, Dewey E. Johnson, Prentice Hall of India Pvt Ltd, 2001
- 3. Organizational Behaviour, Fred Luthans, Mc Graw Hill International Edition, 2002
- 4. Hellriegul Don and Slocum John W., Jr, 2004 Organisational Behaviour, New Delhi, Thomson South-Western.
- 5. Khanka, S S., 2008 Organisational Behaviour, New Delhi, S.Chand and Co., Ltd.
- 6. Kumar Arun and Meenakshi N, 2009 Organisational Behaviour- A Modern Approach, NIILM Center for Management Studies, New Delhi.
- 7. Nalini. R. 2011. Social work and the workplace. New Delhi: Concept Publications
- 8. Nelson, Debra L and James Compbell, 2007 Organisational Behaviour-Foundations, Realities and Challenges, New Delhi, Thomson South-Western.
- 9. Robbins Stephen. P. et al. 2012. Organizational behaviour. New Delhi. Pearson publications.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. What is Organizational Behavior?
- 2. Explain the term Job Satisfaction?
- 3. What do you mean by Leadership?
- 4. What is an Informal Group?
- 5. What is Individual Behavior?
- 6. Define Organizational Climate?
- 7. What is Industrial Psychology?
- 8. Explain the term Employee morale?
- 9. What do you mean by two factor theory?
- 10. What is Need Hierarchy theory?

SECTION - B (5X5=25)

Answer ALL Questions

11. a) Narrate the history of Organizational Behaviour.

(or)

- b) Explain the process of group behavior
- 12. a) Examine the skills needed for acquiring leadership

(or)

- b) Explain the importance of informal groups in organizations.
- 13. a) Explain the functions of an Industrial Psychologist.

(or)

- b) Write the meaning and scope of Industrial Psychology?
- 14. a) Describe the contributions of Elton Mayo.

(or)

- b) Discuss David McClelland's Motivational Needs Theory?
- 15. a) What do you mean by Conflict Management? Explain its techniques?

(or)

b) Discuss the importance of Work-life Balance in organizations.

SECTION -C (3X10=30)

Answer any THREE Questions

- 16. Bring out the need for understanding human behavior in organizations
- 17. What is job satisfaction? What are the factors affecting job satisfaction?
- 18. Explain the types of leadership suitable to organizational set up.
- 19. What is Stress? Explain the causes of Stress?
- 20. Elaborate Maslow's need hierarchy theory.

SPECIALISATION PAPER - III

MEDICAL AND PSYCHIATRY SPECIALIZATION

YEAR – II		CODE: 19PSW41C
SEMESTER – IV	PSYCHIATRIC SOCIAL WORK	HRS/WEEK: 6
CORE – XII		CREDIT: 4

Course Outcomes:

After completing this course, students will:

CO1: Learn the psychiatric social work. **CO2:** Be equipped with clinical setting.

CO3: Be exposed to methods of psychological treatments.

CO4: Understand the children mentality.

CO5: Be aware of the role of social worker in rehabilitation Centre.

SEMESTER IV		VCOURS	E CODE:	19PSW4	1C	TITLE C	F THE PAPE	R: PSYCHIAT	RIC SOCIAL	WORK			
											HOURS:6	CREDITS:4	
COURSE OUTCOMES	PROGRAMME OUTCOMES PROGRAMME SPECIFIC OUTCOMES (PSO)							MEAN SCORE OF					
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	5	4	5	4	5	5	5	4	4	4	4.5		
CO2	5	4	5	4	5	5	4	4	4	4		4.4	
CO3	5	4	5	5	5	5	4	5	4	4		4.6	
CO4	4	5	4	5	4	5	4	5	4	4		4.3	
CO5	5	4	4	5	4	5	4	5	4	4	4.4		
		Mean Overall Score									4.44		

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Psychiatric Social Work: Concept, Definition, Limitations and difficulties faced in psychiatric social work practice, Magnitude of Mental Health Problems; Analysis of mental health problems among vulnerable groups such as women, aged, socio-economically disadvantaged, urban and rural population and disaster victims. Scope of Social Work in Mental Health.

Unit II

Present Practice and equipment of Psychiatric Social Work in various Clinical Setting. Mental health institutions, Government and Private Hospital and Psychiatric Clinic, Half way homes, Day care Centres, Sheltered Workshops, Dept of Preventive and Social Medicine.

Unit III

Psychiatric Social Work Practices: Psychoanalytical, Psycho-Social, Transactional analysis, Life Model, Family Centered Treatment, Tasks Centered, Therapeutic Intervention in Psychiatric illness: Psycho Surgery, Occupational therapy, Cognitive Behavior Modification therapy, Play therapy, Music therapy.

Unit IV

Child Mental Health and Social Work practice; development and psychological perspectives in child mental health; social work practice in child guidance clinic; Prevention and treatment intervention in family, school, neighborhood and community settings. Psychiatric Social Work Practice in Crisis intervention centers and with special groups such as rape victims and HIV or AIDS patients.

Unit V

Psychological Rehabilitation: Concept, Principles, Process and Programmes; Role of Social Workers. Mental health policies and legislation in India; national mental health programes. Research – Single Case Evaluation; Qualitative and Action research on mental health issues; monitoring and evaluation of programmes; Mental Health Care Models: TTK, SCARF and BANYAN. Role and Functions of Psychiatric Social Worker

TEXT BOOK:

- 1. Niraj Ahuja, 2011, A Text Book of Psychiatry, Jaypee Brothers Medical Publishers (pvt) Ltd.
- 2. Dr. R.N. Sharma, 2010, Abnormal Psychology, Subject Publication.
- 3. Robert L. Solso, 2001, Cognitive Psychology, Delhi: Pearson Education.
- 4. Randy J. Larsen, David M. Buss, 2011, Personality Psychology, Tata McGraw Hill Edition.

REFERENCES

- 1. Daver, Bhargavi, 1999 Mental Health of Indian Women, Sage Publications, New Delhi
- 2. Daver, Bhargavi, 2001 Mental Health from a Gender Perspective, Sage Publications, New Delhi
- 3. Dhanda, Amita, 1999 Legal Order and Mental Disorder, Sage Publications, New Delhi
- 4. Kapur, Malavika, 1997 Mental Health in Indian Schools, Sage Publications, New Delhi
- 5. Verma, Ratna, 1991 Psychiatric Social Work in India, Sage Publications, New Delhi
- 6. Ian Mathews(2000) Social Work and Spirituality, Learning Matters Ltd. Exeter, UK
- 7. WHO, 1991 Innovative Approaches in Mental Health Care, Psychosocial Interventions and Co-management, Geneva.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. What is mental health?
- 2. What is psychiatric social work?
- 3. What is half way home?
- 4. What is day care center?
- 5. What is life model?
- 6. What is crisis intervention?
- 7. What is child mental health?
- 8. What is de-addiction?
- 9. What is rehabilitation?
- 10. What is mental health legislation?

SECTION - B (5X5=25)

Answer ALL Questions

11. a. Explain the scope of Psychiatric social work practice

(or)

- b. What are the mental health problems of women? Reg.
- 12. a. Explain the functions of child guidance clinics.

(or)

- b. Explain the role and functions of private psychiatric clinics in mental health.
- 13. a. Explain the process of family centered treatment method.

(or)

- b. Explain the process of crisis intervention with an example.
- 14. a. Explain the psychiatric social work practice in schools.

(or)

- b. Explain the psychiatric social work practice in community.
- 15. a. Explain the mental health programs for community mental health.

(or)

b. Explain the nature of single case evaluation with an example.

SECTION -C (3X10=30)

Answer any THREE Questions

- 16. Explain the magnitude of mental health problems in India.
- 17. Explain the nature of psychiatric social work in mental health institutions.
- 18. Explain the various theory and models of psychiatric social work.
- 19. Explain the psychiatric social work in addiction center with examples.
- 20. Explain the mental health policies and legislations in India.

SPECIALISATION PAPER - IV

COMMUNITY DEVELOPMENT SPECIALIZATION

YEAR – II	COMMUNITY DEVELOPMENT	CODE: 19PSW42A
SEMESTER – IV	COMMUNITY DEVELOPMENT	HRS/WEEK: 6
CORE – XIII	MANAGEMENT	CREDIT: 4

Course Outcomes:

After completing this course, students will:

CO1: Understand the concept of NGO.

CO2: Learn the strategies to develop the community.

CO3: Be exposed to self help groups and panchayat system.

CO4: Understand about the structure of NGOs and their management aspects.

CO5: Be aware of entrepreneurship Training and Development of Entrepreneurs.

SEMESTER IV		C	OURSE C	ODE:		TITLE O	F THE PAPER	R: COMMUN	ITY DEVELO	PMENT				
			19PSW4	I2A			M		HOURS:5	CREDITS:4				
COURSE OUTCOMES	PROGRAMME OUTCOMES (PO)						PROGRAMN	MEAN SCORE OF						
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	co's			
CO1	5	3	5	3	4	5	5	5	4	4	4.3			
CO2	5	3	5	3	5	5	5	5	4	5	4	1.5		
CO3	5	4	5	3	5	5	5	5	4	5	4	1.6		
CO4	5	3	5	3	5	5	5	4	4	5	4	1.4		
CO5	5	3	5	3	4	5	5	4	4	4	4.2			
	Mean Overall Score								4	1.4				

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Introduction to NGO: Concept and Characteristics, Types of NGOs – Classification; Role of NGOs in National Development; History of NGO Sector in India and World. Registration of NGO under Tamil Nadu Societies Registration Act 1975. Tax Regulations concerning NGOs: Specific Tax Exemptions (Section

12A, Section 35AC, Section 80G & 80GG of Income Tax Act. Foreign Contributions: Legal Regulations (Foreign Contribution Regulations Act)

Unit II

Government Schemes for the NGO Sector: Grant – in Aid schemes and other concessions of the Government of India and Tamil Nadu State Government; Schemes for the Welfare of the Children, Youth, Women, Aged and Differently Abled. International Agencies and NGOs: UN and its Agencies, World Bank, Asian Development Bank and other International Donor Agencies, Networking and Partnership with Government and other agencies.

Unit III

Self Help Groups & Federation of SHGS at the Panchayats, Cluster, Block and District. Role of state, banks in SHGs. Maintenance of records in SHGs. Grading and Evaluation of SHGs. Role of SHGs in local Issue Tackling. Leadership in SHGs. Problems faced by SHGs. SHGs and Economic development. Role of NGOs in SHGs. Role of social workers in SHGs. Micro Finance- Meaning and Characteristics- Working of Micro Finance- Philosophy of Micro Finance- Role of Social Worker in Micro Finance.

Unit IV

Water shed Management – Meaning, Objectives, and Implementation. Economic Benefits, Social Benefits. Role of NGOs in Water Shed Management. Role of Social Workers in Water Shed Management. Waste Land Development – Meaning and Characteristics. Identification of Waste Land, Role of NGOs in Waste Land Development. Community Based Organizations for Sustainable Development – Meaning, Characteristics- Community Participation

Unit V

Entrepreneurship – Meaning, Characteristics. Problems of Entrepreneurship. Women Entrepreneurs, Rural Entrepreneur. Personality and Dynamics of Entrepreneurs. Training and Development of Entrepreneurs. Role of TN Small Indusries Development Corporation (SIDCO), National Bank for Agriculture and Rural Development (NABARD) and Khadi and Village Industries Commission (KVIC) in Entrepreneur development. Role of Social Workers in Entrepreneur development.

TEXT BOOK:

1. Jayashree. 2005. Entrepreneurial Development. Chennai: Marghan.

- 2. Non Governmental Organizations Origin and Development, Suresh Chandra Annie Karen, Rawat Publications Jaipur, 2015
- 3. Asha Ramagonda Patil, 2013, Community Organization and Development an Indian Perspective, Eastern Economy Edition,
- 4. Samuel H Taylor, 2013, Theory and Practice of Community Social Work, New Delhi.
- 5. W. Sheafor Charles J. Horejsi, 2011, Techniques and Guidance for Social Work Practice, Ninth Edition, Bradford Eastern Economy Edition.

REFERENCES:

- 1. Daniel A.V. 2011. Strategies for Agricultural Development Bombay: Vora.
- 2. Danial, Lazer. 2008. Micro Training Poverty and Eradication. New Delhi: New Century Book House.
- 3. Desai Vasant. 2004: Dynamics of Entrepreneurial Development. New Delhi: Sultan anand & sons.
- 4. Giriappa. S. 2011. Water the Efficiency in Agriculture. Calcutta: Oxford Press.
- 5. Gupta C.B. 2004: Entrepreneurial Development. New Delhi: Sultan Anand & Sons.
- 6. Sharma, R. K. 2011. Entrepreneurship Development. Bombay: Himiliya Publishing House
- 7. Upendra, Nath Roy. 2005. People Participation in Watershed Management. New Delhi: Kanishka Publisher.
- 8. Usharani, K. 2008. Marketing Strategies, Finance Viability of Self Help Group. New Delhi: Sarop & Sons,.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. What do you mean by Federation?
- 2. Define Micro Finance.
- 3. Define Sustainable Development.
- 4. What does Community Participation mean?
- 5. Mention any 4 problems of rural entrepreneurs?
- 6. List any two objectives of TADCO.
- 7. List any two Acts for NGO registration.
- 8. Write any two differences between Trust and Society
- 9. Who is disabled?
- 10. List any two programs of World Bank.

SECTION - B (5X5=25)

Answer ALL Questions

11. a. Explain in brief the grading and evaluation of SHG.

(or)

- b. Write in short the structure of SHG's.
- 12. a. Write short notes on Community Based Organization.

(or)

- b. Enlist the Social and Economic benefits of Water Shed Management.
- 13. a. Explain in brief the functions of KVIC.

(or)

- b. What are the characteristics of Entrepreneurs?
- 14. a. Write short notes on FCRA.

(or)

- b. Write about the classification of NGO's in India.
- 15. a. Write short notes on International Donor Agencies.

(or)

b. Explain in short the Government Schemes for Youth in India.

SECTION - C (3X10=30)

Answer any THREE Questions

- 16. Explain the characteristics and working of MFI in India and list the roles of Social Workers in relation to MFI.
- 17. Examine the roles of NGO's in Waste land Development.
- 18. Explain the roles of Social Workers in the development of Women Entrepreneurs.
- 19. "Non-Governmental Organizations have a significant Role in National Development" Illustrate with examples.
- 20. Analyze the Government schemes for women and child welfare in India.

SPECIALISATION PAPER - IV

HUMAN RESOURCE MANAGEMENT SPECIALIZATION

YEAR – II		CODE: 19PSW42B
SEMESTER – IV	INDUSTRIAL RELATONS	HRS/WEEK: 6
CORE – XIII		CREDIT: 4

Course Outcomes:

After completing this course, students will:

CO1: Understand the concept of industrial relation.

CO2: Understand the relationship between the industries.

CO3: Be exposed trade union and bargaining system.

CO4: Understand the industrial disputes.

CO5: Gain Knowledge on industrial legislations.

SEMESTER IV		CC	OURSE CO	DDE:		TITL	E OF THE PAI	PER: INDUST	RIAL RELATO	ONS			
			19PSW4	2B							HOURS :6	CREDITS:4	
COURSE	OURSE PROGRAMME OUTCOMES						PROGRAMN	ME SPECIFIC (OUTCOMES				
OUTCOMES		(PO) (PSO)						MEAN SCORE OF					
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	5	4	5	4	5	5	4	3	5	5	4.5		
CO2	5	4	5	4	5	5	5	3	4	5	4	1.5	
CO3	5	4	5	4	5	5	4	3	5	5	4	1.5	
CO4	5	4	5	4	5	5	5	3	4	5	4	1.5	
CO5	4	5	4	3	5	5	4	4	4	4	4.2		
	Mean Overall Score								4	.44			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Industrial Relations: Meaning, Definition, Scope, Need and Factors Influencing IR Evolution of IR- Characteristics and Participants of IR. Approaches to IR-Maxian, Giri, Webbs, Dunlop. Influence of Socio-Economic, Political and Technical Forces on Industrial Relations; IR at Shop Floor and Plant: Employee Discipline, Grievance Redressal Machinery.

Unit II

Trade Unions: Meaning, General features- Principals of Union- Major trade unions in India- Problems and Weakness of trade union- Measures to Strengthening the Functioning of trade union. Trade Union: Origin and Growth of trade union movement in India - Theories - Functions - Administration of Unions - Leadership - Membership and Finance. Trade Union Act.

Unit III

Collective Bargaining: Main Features –Importance- Contents and Coverage of Collective Bargaining: Concept, Goals, Principles, Prerequisites. Bargaining Strategies - The factors influencing Collective bargaining - Skills of an effective bargaining agent. Workers Participation in Management: Concept - Aims and objectives - Scope - Levels of Participation, Forms of Participation in India-Conditions essential for working of the Scheme of workers' participation in Management.

Unit IV

Industrial Dispute: Meaning, Concept, Instruments of Coercion – Strike, Picketing, Bandh, Strikes and Lock – Out; Dispute Settlement Mechanisms: Bipartite Approach – Negotiation, Mediation, Works Committee, Significance of Employers' Federations; Tripartite Approach - Conciliation, Arbitration, Adjudication - Court of Enquiry, Labour Courts, Industrial Tribunal, National Tribunal, Awards; industrial democracy – Workers Participation.

Unit V

Industrial Relations Legislation: Indian Trade Union Act 1926, Industrial Disputes Act 1947, Industrial Employment (Standing Orders) Act 1946. International Labour Organization: History - Aims and Objectives - Structure - Functions. Influence of ILO on Indian Industrial Relations - Labour welfare practices in India. Emerging Trends in Union - management relations: Impact of Liberalization, Privatization and Globalization.

TEXT BOOK:

- 1. B. Nandhakumar, Vijay Nicole, 2015, Industrial Relations Labour Welfare and Labour Laws, Imprints Private Limited, Chennai.
- 2. S C Srinivastava, 2007, Industrial Relations and Labour Laws, Vikas Publishing House Private Limited, New Delhi.

- 3. P. R. N. Sinha, Indu Bala Sinha, Seema Priyafarshini Shekhar, 2020, Industrial Relations, Trade Unions and Labour Registration, Pearson.
- 4. M. Sivakumar, 2011, Industrial Relations and Labour Welfare, Lakshmi Publications, Chennai.
- 5. Yoder, Dale. 1976. Personnel Management and Industrial Relations. New Delhi: Prentice Hall of India Pvt. Ltd.

REFERENCES

- 1. Johnson, T. L. 1981. Introduction to Industrial Relations. Britain: MacDonald & Enerd. Great
- 2. Mamkootam. Kuriakose. 1982. Trade Unions. Myth and reality. New Delhi: Oxford University press.
- 3. Mamoria, C. B. and Mamoria Satish. 1984. Industrial Labour. Social Security and Industrial peace in India. Allahabad: Kitab Mahal.
- 4. Punekar, S. D. et. al. 1981. Labour welfare. Trade Unions and Industrial Relations. Bombay: Himalaya Publishing House.
- 5. Ramassamy. E. A. and Uma Ramasamy. 1981. Industry and Labour An introduction. New Delhi: Oxford University Press.
- 6. White, K. Head. 1977. Industrial Relations. London: Hodder & Sought.
- 7. Yoder, Dale and Paul, D. Stanbhas, 1985. Personnel Management and Industrial Relations. New Delhi: Prentice Hall of India Pvt. Ltd.

QUESTION PATTERN

SECTION -A (10X2=20)

Answer ALL Questions

- 1. Mention two objectives of industrial relations.
- 2. What is the meaning of industrial relations?
- 3. Define 'leadership'.
- 4. What is meant by 'closed shop' and 'open shop'?
- 5. What is the meaning of collective bargaining?
- 6. Mention two strategies of collective bargaining.
- 7. What is meant by worker's participation in management?
- 8. Mention two skills of a bargaining agent.
- 9. What are the aims of ILO?
- 10. What is meant by 'liberalization'?

SECTION - B (5X5=25)

Answer ALL Questions

11.a) Describe the characteristics of industrial relations.

(or)

- b) Discuss the scope of industrial relations.
- 12. a) What are the principles of trade union?

(or)

- b) Give a brief note on the functions of trade unions in India.
- 13. a) Explain the importance of collective bargaining.

(or)

- b) Describe the prerequisites of collective bargaining.
- 14. a) List out the objectives of collective bargaining.

(or)

- b) Give a brief note on the conditions essential for the success of worker's participation in management.
- 15. a) Explain the Structure of ILO.

(or)

b) Describe the functions of ILO.

SECTION - C (3X10=30)

Answer any THREE Questions

- 16. Discuss the influence of ILO on industrial relation in India.
- 17. Give a detailed account on the major trade unions in India.
- 18. Describe the recent trends in collective bargaining with examples.
- 19. Discuss the various levels and forms of worker's participation in India.
- 20. Discuss the emerging trends in trade union management relations in India.

SPECIALISATION PAPER - IV

MEDICAL AND PSYCHIATRY SPECIALIZATION

YEAR – II		CODE: 19PSW42C
SEMESTER - IV	COMMUNITY HEALTH	HRS/WEEK: 6
CORE – XIII		CREDIT: 4

Course Outcomes:

After completing this course, students will:

CO1: Gain knowledge on health and hygiene.

CO2: Enlighten with occupational health disease.

CO3: Be exposed to health care delivery system.

CO4: Be aware on health education.

CO5: Understand the community health and its work process.

SEMESTER II			OURSE CO			TITI	E OF THE PA	APER: COMIV	IUNITY HEAL	.TH			
			19PSW4	2C							HOURS:6 CREDITS:4		
COURSE OUTCOMES		PROGRAMME OUTCOMES PROGRAMME SPECIFIC OUTCOMES (PSO)						MEAN SCORE OF					
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	CO'S		
CO1	5	4	4	4	5	5	5	4	4	4	4	4.4	
CO2	4	4	5	4	4	5	5	4	5	4	4	4.4	
CO3	4	4	5	4	5	5	4	4	4	4	4	4.3	
CO4	4	4	4	4	4	5	4	4	4	4	4	4.1	
CO5	5	4	5	4	5	5	4	5	4	5	4.6		
		Mean Overall Score								4.36			

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Concept of Health: Meaning, Definition, Historical Development, Factors Influencing Health-Social and Preventive medicine. Organization and Administration of Health Care at the Center, State, District, Municipality and

Village Level; Health Planning in India; Health Committees; Five Year Plan in Relation to Health Care. Emerging need for Palliative & Geriatric Care.

Unit II

Community Health Care - Changing Concepts; Primary Health Care for All; Health Status and Health Problems; Health Care Systems - Primary Health Centre; Private Health Systems Indigenous Systems; Voluntary Health Systems; Role of Social Worker in Community Health.

Unit III

Health Legislation; ESI Act 1948, Amendment 1975, Medical Termination of Pregnancy Act 1971. Doctors Patients and the Consumer Protection act 1986, PWD & Equal opportunities Act 1995, Reproductive health Act, Narcotics and Substance Act.

Unit IV

Community Health care needs Assessment: Assessing Community Health needs-Moralizing core groups and Community Participation- Training of multipurpose health workers in community health Programs. Health Policies, Health Care Programmes in India: State and Central Insurance Scheme, Rashtriya Arokya Nithya, Prime Minister National Relief Fund, National Health Policy 1983, Population Problems and control. Environment Protection Act.

Unit V

Health Programmes at the National level: National control of blind program, minimum need program, welfare program for physically challenged, national health Programmes: family welfare, maternal and child health, ICDS, schools health program UIP, NEMP, NLEP, Diarrhea Disease control program.

TEXT BOOK:

- 1. Govt. of India (2002): National Health Policy, New Delhi, Ministry of Health and Family Welfare, New Delhi.
- 2. K. Park, 2013, Park Text Book of Preventive and Social Medicine, M/S Banarsidas Bhanot Publishers.
- 3. Pondicherry Aids Control Society, 2007 Pregnancy, Byword books Private Limited

REFERENCES

- 1. Levant, Ronald F. 1984. Family Therapy. New Delhi: Prentice Hall of India Pvt. Ltd.
- 2. Mane P. and Gandevia K. 1992. Mental Health in India, Issues and Concerns. Bombay: Tata Institute of Social Sciences.
- 3. World Health Organization 1990. Schizophrenia Information for Families A Manual prepared by the World Schizophrenia Fellowship for Publication in Cooperation with the WHO.
- 4. World Health Organization 1992. Innovative Approaches in Mental Health Care. Psycho Social Interventions and Case Management. Geneva: WHO.
- 5. Jim Yong Kim et al (2000): Dying for Growth: Global Inequality and the Health of the Poor, Cambridge, Common Courage Press. Chapters 2&3.
- 6. Mackintosh, M and M.Koivusalo (Ed.) (2005): Commercialisation of Health Care: Global and Local Dynamics and Policy Responses, New York, UNRISD and Palgrave-Macmillan.

QUESTION PATTERN

SECTION - A (10X2=20)

Answer ALL Questions

- 1. Define Health.
- 2. What is Public Health?
- 3. What do you mean by voluntary health system?
- 4. Define Community health.
- 5. What do you mean by MTP?
- 6. Define Disability.
- 7. List out any four programmes under National Health Policy.
- 8. What is pollution?
- 9. What do mean by UIP?
- 10. List the salient feature of NLEP.

SECTION - B (5X5=25)

Answer ALL Questions

11. a. Explain the concept of Public health development in India.

(or)

- b. Discuss the administration of health care at state level.
- 12. a. Explain the concept of "Primary Health care For All".

(or)

- b. Narrate the role of social worker in community Health.
- 13. a. Highlight the salient features of consumer protection Act with respect to patients.

(or)

- b. Explain the need of ESI Act to the community.
- 14. a. Highlight the consequences of over population and suggest few control measures.

(or)

- b. Discuss the salient features of Environmental Protection Act.
- 15. a. Enumerate the importance of minimum need Programme.

(or)

b. Highlight the functions of ICDS.

SECTION -C (3X10=30)

Answer any THREE Questions

- 16. Narrate five year health care planning in India.
- 17. Discuss Health Care System in India.
- 18. Bring out the importance of PWD & Equal opportunities Act 1995.
- 19. Explain National Health Policy in India.
- 20. Enumerate National Health Programmes in India.

YEAR – II	CONCURRENT FIELD WORK PRACTICUM – IV	CODE: PSWF4
SEMESTER – IV		HRS/WEEK: 10
CORE PRACTICAL – IV	PRACTICOIVI – IV	CREDIT: 4

Course Outcomes:

After completing this course, students will:

CO1: Be applicable of practical knowledge in different settings.

CO2: Learn the role of HR manager in industries.

CO3: Learn the role of social worker in NGO settings.

CO4: Understand the role of medical social worker.

CO5: Be aware of organizing programme.

SEMESTER IV		COUR	SE CODE	: PSWF4		TITLE OF THE PAPER: CONCURRENT FIELD WORK							
							PRACTICUM – IV				HOURS :10	CREDITS:4	
COURSE		PROGRA		UTCOME	S		PROGRAMN	/E SPECIFIC	OUTCOMES				
OUTCOMES			(PO)					(PSO)				SCORE OF	
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	C	CO'S	
CO1	5	4	5	3	5	5	4	3	5	5	4	1.4	
CO2	5	4	5	4	5	5	5	4	5	5	4	1.7	
CO3	5	4	5	4	5	5	5	4	5	5	4	1.7	
CO4	5	4	5	4	5	5	5	4	5	5	4	1.7	
CO5	5	3	5	4	5	5	5	4	5	5	4	1.6	
					М	ean Overall	Score				4	.62	

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

In the final semester the students go for practice based social work for two days in a week and expected to spend a minimum of 15 hours per week in the field.

The students are placed in villages or hospitals or schools or NGOs or government offices or counseling centers or welfare organizations or service organization or industries according to the fields of specialization for a semester where MSW supervisor is available.

During the placement the students are expected involve with the activities of the organization to whatever extent possible.

The students make effort to get exposure and experience to relate the theoretical knowledge what they have gained in the class room and try to practice them. The students also undertake any assignments given to them by the agency; they may also undertake any research for the organization. The community organization programme is being organized by each student to promote extension activities towards different villages, institutions and organizations.

Every week the students write a report of their activities and submit to the concerned field work supervisor. The supervisor conducts individual and group conference every week regularly. At the end of the semester Viva- Voce is conducted by two examiners. 20 marks are being awarded by the internal faculty supervisor, 20 Marks are awarded by the Agency Supervisor and 60 marks are being awarded by the external examiner.

Marks Allotments

Specialization - Community Development

S.	Assigned Work	Internal	External
No		Faculty	External
			Examiner
1	Organization Profile, Group Work, Community	40	
	Organization Programme		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

Specialization – Human Resource Management

S.	Assigned Work	Internal	External
No		Faculty	External
			Examiner
1	Organization Profile, Role of Human Resource	40	
	Management Department, Community		
	Organization Programme		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

Specialization - Medical and Psychiatric

		Internal	External
S.	Assigned Work	Faculty	External
No			Examiner
1	Organization Profile, Case Work, Community	40	
	Organization Programme		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

YEAR – II		CODE: JPSW1016
SEMESTER – IV	RESEARCH PROJECT	HRS/WEEK: 6
PROJECT		CREDIT :5

Course Outcomes:

After completing this course, students will:

CO1: Understand the importance of research.

CO2: Determine the factors in collecting reviews for the research projects.

CO3: Be aware of writing research proposal

CO4: Determine the findings for chosen topic.

CO5: Finds suggestion and conclusion for the research projects.

SEMESTER IV		COURSI	URSE CODE: JPSW1016			TITLE OF THE PAPER: RESEARCH PROJECT							
											HOURS :6	CREDITS:5	
COURSE OUTCOMES	PROGRAMME OUTCOMES (PO)					PROGRAMME SPECIFIC OUTCOMES (PSO)						SCORE OF	
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	C	CO'S	
CO1	4	5	4	4	4	4	4	5	4	4	4	1.2	
CO2	2	5	4	3	4	4	4	5	4	4	3	3.9	
CO3	4	5	4	4	4	4	4	4	4	4	4	1.1	
CO4	3	5	2	4	4	4	3	5	5	5		4	
CO5	4	5	3	4	4	4	4	5	5	5	4	1.3	
		•	•	•	М	ean Overall	Score	•	•	•	4	1.1	

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

The students are placed under a supervisor for the research project work. The students are encouraged to start the project work in the third semester itself. Review meeting of three stages will be held in 20 days interval to monitor and guide the Students' Research Project.

Schedule for Review Meetings

Review Meet I — Finalization of Topic, Tool and Proposal — Introduction and Review of the Literature

Review Meet III — Data Analysis, Interpretation, Findings and Suggestions

In the fourth semester the students complete the research study and submit the final copy for valuation. At the end of the semester Viva- Voce is conducted by an external examiner (75 marks for Final Research Project Report and Viva Voce). The internal assessment is for 25 marks)

Research Report Format (The Research Project Report should be typed in Times New Roman Font, 12 font size with 1.5 line space)

- 1. Outer Cover
- 2. Title Page
- 3. Certificate
- 4. Preface
- 5. Acknowledgement
- 6. Table of Contents
- 7. List of Tables
- 8. List of Figures
- 9. List of Plates (if any)

{(The above nine items are the preliminaries of the research report, which should be numbered in Roman small numbers at the bottom of the page e.g. i, ii, iii.) Arabic numbers are used for the following items.}

Chapter I: Introduction

1. A brief General Introduction

2. Statement of the Research Problem

3. Need / Significance / Importance of the Study

Chapter II : It consists of Review of Literature (with an appropriate title)

This chapter ends with General and Specific Objectives

Chapter III : Methodology

This chapter describes the various steps used in carrying out the research task. It is described in the past tense.

- 1. Chapter Introduction
- 2. Field of Study.
- Pilot Study
- 4. Research Design
- 5. Selection of Sample
- 6. Tools of Data Collection
- 7. Sources of Data
- 8. Pre testing

9. Actual Data Collection

10. Definition of Terms

11. Analysis

12. Limitations

13. Organisation of the Report

Chapter IV : Analysis and Interpretation

This chapter presents the analysed data either by a table or a chart and not both for the same variable. The variable name is given as a sub title, introduction of the variable, presentation of data (table No. and table title) analysis then interpretation of data. Interpretation is not mere description of the numbers into words but giving meaning

for the data distribution.

Chapter V: Main Findings (Percentage in brackets) and Suggestions

Chapter VI : Summary and Conclusion

Bibliography: It is arranged in the alphabetical order by the author's

name. Author's surname, year, title, place, publisher

Appendix

YEAR – II	BLOCK FIELD WORK PRACTICUM (INTERNSHIP)	CODE: PSWF5
SEMESTER – IV		HRS/WEEK: 10
EXTENSION - III		CREDIT: 3

Course Outcomes:

After completing this course, students will:

CO1: Be applicable of practical knowledge in different settings.

CO2: Learn the role of HR manager in industries.

CO3: Learn the role of social worker in NGO settings.

CO4: Understand the role of medical social worker.

CO5: Be exposed to various skills in different settings.

SEMESTER IV		COUR	SE CODE	: PSWF5		TITLE OF THE PAPER: BLOCK FIELD WORK PRACTICUM							
										HOURS :10 CREDITS:3			
COURSE OUTCOMES	PROGRAMME OUTCOMES (PO)					PROGRAMME SPECIFIC OUTCOMES (PSO)						SCORE OF	
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	C	CO'S	
CO1	5	4	5	4	5	5	4	3	5	5	4	4.5	
CO2	5	3	5	4	5	5	5	3	5	5	4	4.5	
CO3	5	3	5	4	5	5	5	3	5	5	4	4.5	
CO4	5	3	5	4	5	5	5	3	5	5	4	4.5	
CO5	5	4	5	4	5	5	5	4	5	5	4	4.7	
		-	•	•	М	ean Overall	Score	•	•	•	4	.54	

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

The last month of the fourth semester the students go for block field placement training according to their fields of specialization (24 working days).

The student has to be part of the organization and take part in all the activities of the organization and undertake the assignments given to him.

After completion of one month placement the student submits an activity sheet, attendance certificate, daily reports to the department.

Every week the students write a report of their activities and submit to the concerned field work supervisor. The supervisor conducts individual and group conference every week regularly. At the end of the semester Viva- Voce is conducted by two examiners. 20 marks are being awarded by the internal faculty supervisor, 20 Marks are awarded by the Agency Supervisor and 60 marks are being awarded by the external examiner.

Block Field Work Practicum Marks Assessment

S.	Assigned Work	Internal	External
No		Faculty	External
			Examiner
1	Selecting the Agency, Report Submission, Agency	40	
	Profile		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

THEORY EXAMINATION EVALUATION COMPONENT

Continuous Internal Assessment (CIA) (25)

Assignment - 5 Marks
Seminar - 5 Marks
Two written Examination - 15 Marks
Total - 25 Marks

Question Pattern (Written Examination)

Part – A (10X2=20) (Answer all the Question)

Part – B (6X5=30) (Answer all the Questions)

External Examination (75 Marks)

Question Pattern

Time: 3 Hours Max. Marks: 75

Section – A (10X2=20) (Answer all the Question) Two Questions from each Unit

Section – B (5X5=25) (Answer either a or b from each Question) Five Questions from each Unit

Section – C (3X10=30) (Answer any three from five Questions) Five Questions from each Unit

MODEL QUESTION PAPER FOR THE SEMESTER EXAMINATIONS

SOCIAL POLICY AND SOCIAL LEGISLATIONS

Section – A (10x2=20)

Answer ALL Questions

- 1. What is the meaning of welfare?
- 2. What is social policy?
- 3. What is social security?
- 4. Who is a disabled person?
- 5. What is family court?
- 6. What is Indian Penal code?
- 7. Who is a Juvenile?
- 8. Who is a child laborer?
- 9. What is immoral traffic?
- 10. What is eve teasing?

Section - B (5x5=25)

Answer ALL Questions

11. a. Explain the objectives of social policy.

(or)

- b. Explain the process of planned social change with social legislations.
- 12. a. Give details of housing policy of India.

(or)

b. What are the programs for backward classes?

13. a. Explain the functions of Lok adalats.

(or)

- b. Give details of functions of legal aid.
- 14. a. Give details of special marriage act 1955.

(or)

- b. What are the important features of Bonded Labor Abolition act 1976?
- 15. a. Give details of protection of civil rights act1955.

(or)

b. Give details of Tamil Nadu prohibition of ragging act 1997.

Section – C (3x10=30)

Answer any THREE Questions

- 16. Explain the role of social policy in social welfare in India.
- 17. Explain the importance of health, women and social security policies in India.
- 18. Explain the use of right to information act with an example.
- 19. Explain the uses and impact of Juvenile Justice Act 1986.
- 20. Explain the salient features of transplant of human organ act 1994.

LIFE SKILLS FOR SOCIAL WORKERS – EVALUATION COMPONENT Marks Allotments

Submission of Report - 20 Marks
 Presentation & Performance - 20 Marks
 Completion of Components - 20 Marks
 Skills Acquired - 20 Marks
 Learning Content - 20 Marks
 Total - 100 Marks

RURAL SOCIAL WORK PERSPECIVES – EVALUATION COMPONENT Marks Allotments

Submission of Report - 20 Marks
 Individual Contribution - 20 Marks
 Presentation & Performance - 20 Marks
 Skills Acquired - 20 Marks
 Learning Content - 20 Marks
 Total - 100 Marks

NATIONAL SOCIAL WORK PERSPECIVES – EVALUATION COMPONENT Marks Allotments

Submission of Report - 20 Marks
 Individual Contribution - 20 Marks
 Presentation & Performance - 20 Marks
 Skills Acquired - 20 Marks
 Learning Content - 20 Marks
 Total - 100 Marks

FIELD WORK PRACTICUM EVALUATION COMPONENT

S.	Activity	Internal	External
No		Marks	Marks
1	Observation Visit, Street Theatre Training	40	
	Programme & Group Project		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

CONCURRENT FIELD WORK PRACTICUM EVALUATION COMPONENT

Concurrent Field Work Practicum - I

S.	Assigned Work	Internal	External
No		Faculty	External
			Examiner
1	Case Work, Group Work, Community Organisation	40	
	Programme		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

Concurrent Field Work Practicum - II

Specialization - Community Development

S.	Assigned Work	Internal	External
No		Faculty	External
			Examiner
1	Organization Profile, Group Work, Community	40	
	Organization Programme,		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

Specialization – Human Resource Management

		Internal	External
S.	Assigned Work	Faculty	External
No			Examiner
1	Organization Profile, Role of Human Resource	40	
	Management Department, Community		
	Organization Programme,		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

Specialization - Medical and Psychiatric

		Internal	External
S.	Assigned Work	Faculty	External
No			Examiner
1	Organization Profile, Case Work, Community	40	
	Organization Programme,		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

Concurrent Field Work Practicum - III

Specialization - Community Development

		Internal	External
S.	Assigned Work	Faculty	External
No			Examiner
1	Organization Profile, Group Work, Community	40	
	Organization Programme		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

Specialization – Human Resource Management

		Internal	External
S.	Assigned Work	Faculty	External
No			Examiner
1	Organization Profile, Role of Human Resource	40	
	Management Department, Community		
	Organization Programme		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

Specialization - Medical and Psychiatric

		Internal	External
S.	Assigned Work	Faculty	External
No			Examiner
1	Organization Profile, Case Work, Community	40	
	Organization Programme		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

SELF STUDY PAPERS EVALUATION COMPONENT

2 Written Examination - 60 Marks
 2 Seminars - 20 Marks
 2 Assignments - 20 Marks
 Total - 100 Marks

Question Pattern (Written Examination)

Part – A (5X2=10) (Answer all the Questions)

Part – B (4X5=20) (Answer either A or B from each Question)

PROJECT EVALUATION COMPONENT

Internals (25 Marks)

i.	Punctuality	- 5 Marks
ii.	Sincerity & Genuineness	- 5 Marks
iii.	Guidance Participation	- 5 Marks
iv.	Ability to do Research Independently	- 5 Marks
٧.	Quality of Work	- 5 Marks

External (75 Marks)

i. Presentation of the Dissertation (Materials) - 25 Marks
 ii. Quality of the work (Materials) - 25 Marks
 iii. Viva Presentation (Oral) - 25 Marks

BLOCK FIELD WORK PRACTICUM EVALUATION COMPONENT

S.No	Assigned Work	Internal	External
		Faculty	External
			Examiner
1	Selecting the Agency, Report Submission, Agency	40	
	Profile		
2	Presentation, Quality in Components,		60
	Communication		
	Total	100	

VALUE ADDED PROGRAMME

1. Eligibility for Admission to the Course

A candidate who is pursuing the Bachelor Degree or Master Degree is accepted eligible to study this programme.

2. Duration of the Course

This course of Study shall be for a month with 2 credits. There will be 30 hours consisting of 1 teaching hour per working day.

3. The Course of Study

Theory Papers - The Course of the Master of Social Work shall be under the Semester System according to the Syllabus to be prescribed from time to time. This Course consists of Core Subjects and Elective Subjects.

4. Objectives:

The programme is designed with the following objectives:

- To acquire specific knowledge on NGO Management.
- To understand the Project Management Dimensions, Planning and the implementation of Projects.
- To enhance skills and techniques on Project Proposal Writing.

5. Scope

- a. By studying this programme the student will get knowledge on the following
 - NGO Management
 - Project Management Dimensions, Planning and its implementation
 - Skills and Techniques of Project Evaluation or Resource Mobilization.
- b. The students will also get motivation to start a Nongovernmental Organization.

DURATION – ONE MONTH	NCO MANACEMENT	CODE: VAPSW711	
	NGO MANAGEMENT	HRS: 30	

Course Outcomes:

On successful completion of the course the students should enrich their knowledge about

- 1. NGO MANAGEMENT
- 2. Project Management Dimensions, Planning and its implementation
- 3. Skills and Techniques of Project management Evaluation or Resource Mobilization.
- 4. They will get motivation to start a Nongovernmental Organization.
- 5. Field based visit to NGOs.

DURATION – ONE MONTH	COURSE CODE: VAPSW711					TIT	TITLE OF THE PAPER: NGO MANAGEMENT				HOURS :30	CREDITS:
COURSE OUTCOMES		PROGRA	AMME O (PO)	UTCOME	S	PROGRAMME SPECIFIC OUTCOMES (PSO)					MEAN SCORE OF	
(CO)	PO1	PO2	PO3	PO4	PO5	PSO1	1 PSO2 PSO3 PSO4 PSO5				co's	
CO1	5	2	5	3	5	5	4	3	5	5	4	1.2
CO2	5	3	5	4	5	5	4	3	5	5	4	1.4
CO3	5	3	5	4	5	5	5	4	4	5	4	1.5
CO4	4	3	5	3	5	5	3	4	4	4		4
CO5	4	2	4	3	4	5	4	3	4	4	3	3.7
	Mean Overall Score					4	.16					

This Course is having **VERY HIGH** association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

Unit I

Management: Meaning, Definition, Concepts, Objectives and Functions. NGO's: Meaning, Definition, Concepts, Vision, Mission, Goals, Types, Functions and Approaches. Role of NGO's in Community Development.

Unit II

Legal - rational structure of Non-profits: Trusts and Societies with Special reference to Trust and Society Registration Acts- Foreign contributions and Regulation Act (FCRA) - Statutory Obligations- Income Tax Exemption (80-G, 12-A, & 35AC): Rules and Regulation - Resource Mobilization: Methods and Techniques of Fund Raising - International, National and Local Levels.

Unit III

Leadership in the NGO's Context – Practice of Human resources Management in NGO's - Human Resources Management and role of creating change agents – Staffing, recruiting, induction and training- CSR Activities: Definition, concepts and need - Concentration areas of CSR - Role of social workers in CSR- National and International CSR activities: TVS, Infosys and Tata .

Unit IV

Concept, Meaning, Definition and Types of projects – Projects Implementation and Management: Project Planning Matrix - Project Cycle Management - Identification and Formulation of Details Projects Report (DPP) with reference to Action AID and Save the Children- Rural Appraisal (PRA): Tools and Techniques, SWOC (Strengths, Weaknesses, Opportunities, and Challenges) Analysis.

Unit V

3 Field based visits to NGOs in Cuddalore, Villupuram and Pondicherry regions.

TEXT BOOK:

1. Non Govermental Organization, suresh Chandra, New Delhi, 2015

Evaluation Component

2 Written Examination - 50 Marks
Seminar - 10 Marks
Assignment - 10 Marks
Attendance - 10 Marks
Report of NGO Visit - 20 Marks
Total - 100 Marks

Question Pattern (Written Examination)

Part – A (10X2=20) (Answer all the Questions)

Part – B (6X5=30) (Answer either A or B from each Question)

I B.com (Bank Management)	MONETARY ECONOMICS	19AEBM22
SEMESTER - II		HRS/WK – 5 TOTAL 75 HRS
ALLIED-2		CREDIT –4

Objectives:

- > To give basic and clear understanding of Indian monetary system.
- To know the relevance of Inflation & Monetary Policy.

Unit I: Introduction

15 HOURS

Barter system and its defects-Evolution of money-Definition of Money-Kinds of Money-Functions of Money-Primary Functions of Money-Secondary Functions of Money-Contingent Functions —Static & Dynamic Functions of Money-Defects of Money-Significance of Money.

Unit II: Value of Money

15 HOURS

Concept of the value of Money- Quantity Theory of Money — Fisher's Transaction Approach — Assumption of Equation of Exchange- Criticism of Quantity Theory and Fishers Equation- Cambridge Cash Balance Approach and its criticism- Index Numbers- How to prepare an Index Number- Uses and Limitation of Index Numbers.

Unit III: Demand and Supply of Money

15 HOURS

The Demand for Money-Classical view of Demand for Money-Keynesian view of Demand for Money -The supply of Money-Money supply &Economic activity—Creation of Money- Bank as a Creator of Money-Central Bank as creator of Money-The Government as Creator of Money-Neutrality of Money-Velocity of circulation of Money.

Unit IV: Inflation 15 HOURS

Meaning & Definition – Characteristics Of Inflation-Types of Inflation-Causes of Inflation-Demand Pull Inflation-Cost Push Inflation-Demand Shift Inflation-Inflationary Gap-Effects of Inflation-Anti-inflationary Measures.

Unit V: Monetary Policy

15 HOURS

Meaning and Definition – Objectives of Monetary policy – Role of Monetary policy in Indian Economic Development- Central bank and Instrument of monetary policy - limitation of Monetary policy.

Text Books:

- 1. R.Cauvery, N.Kruparani, U.K.Sudha Nayak, A.Manimekalai, Monetary Economics, Sultan Chand & Company LTD, Ram Nagar New Delhi.
- 2. S.Sankaran , Monetary Economics , Margham Publication, Chennai .

Reference Books:

- 1. K.K.Dewett, Modern Economic Theory, S.Chand & Company LTD, New Delhi.
- 2. M.L.Jhingan, Monetary Economics, Sultan Chand & Company LTD, Ram Nagar New Delhi.
- 3. T.T.Sethi, Monetary Economics, Sultan Chand & Company, New Delhi.
- **4.** 4.Suraj,B.Gupta, Monetary Economics, Sultan Chand & Company, New Delhi.

Journals for Reference

- 1. Journal of monetary economics paper .
- 2. journal of money credit and banking

Websites for Reference

http://www.yahoo.com/socialscience/economics/infoseek-economics www.sciencedirect.com;

https://www.journals.elsevier.com/journal-of-monetary-economics

Question Paper Pattern

Time: 3 hours Marks: 75

Part - A : $(10 \times 2 = 20 \text{ marks})$ All the questions are to be answered

Part – B: (5 x 5 = 25 marks)
Five questions with internal choice.
(Either or pattern)

Part – C: $(3 \times 10 = 30 \text{ marks})$ Three out of five with open choice

YEAR – II		19ASCS31
SEMESTER-III	STATISTICAL METHODS FOR	HRS/WEEK – 8
ALLIED	COMPUTER APPLICATIONS –I	CREDITS - 6

Course Outcomes:

At the end of the Course the students will be able to

- ➤ CO1: Understand the Scope and limitation of Statistical methods, diagrammatic and graphical representation of data, Merits and demerits.
- ➤ CO2: Understand the concept of measures of Location, Dispersion, Absolute and relative measures.
- ➤ CO3: Know the concept of measures of skewness and learn how to measure the samples by the following methods Karl Pearson's, Bowley's, Kelly's coefficient of Skewness and kurtosis.
- ➤ CO4: Understand the concept of Probability and its related theorem
- ➤ CO5: Know the concept of random variables and its use in various density functions understand the concept of Mathematical Expectation its properties and Chebychev's inequality.

SEMESTER- III	COURSE CODE: 19ASCS31			TITLE OF THE PAPER: STATISTICAL METHODS FOR COMPUTER APPLICATIONS – I			HOURS:8	CREDITS:6		
COLIDGE	PROGRAMME OUTCOMES(PO)				PROGRAMME SPECIFIC OUTCOMES(PSO)					
COURSE OUTCOMES	PO1	PO2	PO3	PO4	PSO1	PSO2	PSO3	PSO4		CORE OF O'S
CO1	4	4	4	4	4	4	4	4	4	
CO2	5	5	5	5	5	5	5	5		5
CO3	4	4	4	4	5	5	5	5	4	1.5
CO4	4	4	4	4	4	4	4	4	4	
CO5	5	5	5	5	5	5	5	5		5
Mean Overall Score									4	1.5

Result: This Course is having VERY HIGH association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	$0 \le rating \le 1$	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

UNIT – I

Introduction – Scope and limitations of Statistical methods – Classification of data – Tabulation of data – Diagrammatic and Graphical representation of data – Graphical determination of Percentiles and Quartiles.

UNIT – II

Measures of Central tendency: Arithmetic Mean, Median, Mode, Harmonic Mean and Geometric Mean. Measures of Dispersion: Range, Quartile Deviation, Mean Deviation, Standard Deviation and Coefficient of Variation.

UNIT - III

Measures of Skewness: Karl Pearson's, Bowley's, Kelly's Coefficient of Skewness. Kurtosis based on Moments.

UNIT - IV

Sample Space – events – definition of Probability, Addition and Multiplications theorems – simple problems. Conditional probability – Baye's theorem (proof only).

UNIT -V

Concept of Random Variable – Probability mass function, Probability density function and Distribution function. Mathematical Expectation: Properties of expectations, Chebychev's inequality (only theorem).

Text Books:

- 1. "Fundamentals of Mathematical Statistics" (11th edition–2002), Gupta.S.C. and Kapoor.V.K., Sultan Chand & Sons, New Delhi.
- 2. "Statistical Methods" (32ndedition-2004), Gupta. S.P., Sultan Chand & Sons, New Delhi.

Reference Books:

- 1. "Statistics (Theory and Practice)" (3rd edition 1993), Pillai. R. S. N. and Bagavathi. V. Sultan Chand & Sons, New Delhi.
- 2. "Fundamentals of Statistics Volume II" (6th edition 1990), Goon. A. M., Gupta. M. K. and Dass Gupta. B, The World Press Private Ltd., Calcutta.
- 3. "Mathematical Statistics" (1st edition 2002), Vittal. P. R., Margham Publications, Chennai –17.

YEAR – II		19ASCS42
EMESTER – IV	STATISTICAL METHODS FOR	HRS/WEEK – 8
ALLIED	COMPUTER APPLICATIONS – II	CREDITS - 6

OBJECTIVE:

To motivate the students to understand the theoretical concepts in statistics and make them to apply the concepts in their respective major subjects.

Course Outcomes:

At the end of the Course the students will be able to

- CO1: Understand the concept of Correlation and Regression and its uses in various fields
- ➤ CO2: Understand the definition of Binomial, Poisson and Normal distributions and derivation of Mean and variance for each distribution.
- ➤ CO3: Know the concept of tests of significance (small sample) test. Understand the concept of large sample test and its proportion, mean and Standard deviation of correlation coefficients.
- ➤ CO4: Understand the concept of Analysis of variance, basic principles of design of experiments and problems related to CRD, RBD and LSD.
- ➤ CO5: Understand the diagrammatic representation of data, average, median, mode, STDEV,VAR, skewness and kurtosis functions using MS-Excel.

					TIT	LE OF	ГНЕ РА	PER:		
MESTER: IV	COURSE CODE: 19ASCS42			STATISTICAL METHODS				HOURS: 8	CREDITS:	
	PROGRAMME OUTCOMES(PO)				PROGRAMME SPECIFIC OUTCOMES(PSO)					
COURSE OUTCOMES						PSO2	PSO3	PSO4	MEAN S	CORE OF
OUTCOMES	101	1 02	103	1 0 1	1501	1502	1505	1504	C	O'S
CO1	4	4	4	4	4	4	4	4	4	
CO2	5	5	5	5	5	5	5	5		5
CO3	4	4	4	4	5	5	5	5	4	.5
CO4	4	4	4	4	4	4	4	4	4	
CO5	5	5	5	5	5	5	5	5	5	
Mean Overall Score								4	5	

Result: This Course is having VERY HIGH association with Programme Outcome and Programme Specific Outcome

Association	1%-20%	21%-40%	41%-60%	61%-80%	81%-100%
Scale	1	2	3	4	5
Interval	0<=rating<=1	1.1<=rating<=2	2.1<=rating<=3	3.1<=rating<=4	4.1<=rating<=5
Rating	Very Poor	Poor	Moderate	High	Very High

UNIT - I

Correlation: Scatter diagram, Karl Pearson's, Spearman's rank and Concurrent deviation methods. Regression Analysis: Simple regression equations.

UNIT - II

Standard distributions: Binomial (mean and variance), Poisson (mean and variance) and fitting of these distributions. Normal distributions (characteristics and area problems).

UNIT - III

Concept of Sampling distributions—Standard Error—Tests of Significance based on t, Chi — Square and F distributions with respect of Mean, Variance and Correlation coefficient. Chi — Square test for independence of attributes. Goodness of fit. Large sample test based on Mean and Proportions.

UNIT-IV

Analysis of Variance: One way and two way classifications. Basic principles of design of experiments: Randomization, Replication and Local Control – CRD, RBD and LSD.

UNIT - V

Introduction to MS- Excel and its usage in data analysis – representations of statistical data by using diagrams (column diagram, bar diagram, line diagram, scatter diagram and piediagram). Excel functions regarding descriptive statistics (average, median, mode, STDEV, VAR, skewness and kurtosis functions)

Text Books:

- 1. "Statistical Methods" (32nd edition 2004), Gupta. S. P., Sultan Chand & Sons, New Delhi.
- 2. Statistical analysis with excel for dummies, (2nd edition- 2009), Joseph Schmuller. Wiley Publishing inc., Canada.

Reference Books:

- 1. "Fundamentals of Mathematical Statistics" (11th edition–2002), Gupta.S. C. and Kapoor. V. K., Sultan Chand & Sons, New Delhi.
- 2. "Statistics (Theory and Practice)" (3rd edition 1993), Pillai. R. S. N. and Bagavathi. V., Sultan Chand & Sons, New Delhi.
- 3. "Fundamentals of Statistics Volume II" (6th edition 1990), Goon. A. M., Gupta. M. K. and Dass Gupta. B, The World Press Private Ltd., Calcutta.
- 4. "Statistical analysis Microsoft Excel 2000", Conrad Carlberg . Pearson Education Inc., USA.

VALUE ADDED COURSE SYLLABUS

HOURS –30	BIOSTATISTICS For the students admitted from the year 2010	VAST02
	For the students admitted from the year 2019	

OBJECTIVES

- > To apply statistical techniques for interpreting and drawing conclusion for biological research.
- ➤ Ability to work and analyze with statistical technical tools with EXCEL data sheet

UNIT - I

One dimensional diagrams – Simple bar diagram, Subdivided bar diagram, Multiple bar diagram and Percentage bar diagram.

UNIT - II

Two dimensional diagrams – Pie diagram. Graphs of frequency distribution- Histogram, Frequency polygon and Frequency curve.

UNIT - III

Measure of central tendency – Arithmetic Mean, Median and Mode.

UNIT – IV

Measures of Dispersion - Range, Variance, Standard Deviation.

UNIT - V

Karl Pearson's coefficient of Correlation.

REFERENCES

- 1. Statistical Methods" (32nd edition 2004), Gupta. S. P., Sultan Chand & Sons, New Delhi
- 2. Statistical analysis Microsoft Excel 2000, Conrad Carlberg . Pearson Education Inc., USA.