DEPARTMENT OF COMPUTER SCIENCE

ODD SEM -2020-2021

LESSON PLAN

PROGRAMME:I B.SC(CS)-A,B	**SEMESTER/ YEAR: I SEM/2020-21**
COURSE: Programming in C	**COURSE CODE:SCSJC11**
FACULTY 'S NAME: **MRS.B.RAJALAKSHMI**	**TOTAL HOURS: 60**

SYLLABUS

Objectives:

1. Programming in ANSI C strengthens the knowledge of the students about C Programming and motivates the students to learn programming languages enthusiastically.
2. It helps the students to write programs on their own.

COURSE OUTCOME:

CO1: Understanding a functional hierarchical code organization

CO2: Ability to work with textual information, characters and strings.

CO3: Ability to work with arrays of complex objects.

CO4: Ability to define and manage data structures based on problem subject domain

CO5: Ability to develop and Managing Files.

Programming in C

(4 Hours - 4 credits)

Unit I:

Overview of C: History of C – Importance of C – Basic Structure of C Programs – Programming Style – Character Set – C Tokens – Keywords and Identifiers – Constants, Variables and Data Types – Declaration of

Variables – Defining Symbolic Constants – Declaring a variable as a constant – overflow and underflow of data – Operators and Expressions: Arithmetic, relational, logical, assignment operators – increment and decrement operators, conditional operators, bitwise operators, special operators – Arithmetic Expressions- Evaluation of Expressions – Precedence of Arithmetic Operators – Type Conversions in Expressions – Operator Precedence and Associativity – Mathematical functions.

Unit II:

Managing I/O Operations: Reading and Writing a Character – Formatted Input, Output – Decision Making & Branching: if statement - if else statement - nesting of if else statements - else if ladder – switch statement – the ?: operator – goto statement – the while statement – do statement – the for statement – jumps in loops.

Unit III:

Arrays: One-Dimensional Arrays – Declaration, Initialization – Two-Dimensional Arrays – Multi-dimensional Arrays – Dynamic Arrays – Initialization. Strings: Declaration, Initialization of string variables – reading and writing strings – string handling functions.

Unit IV:

User-defined functions: Need – multi-function programs – elements of user defined functions – definition – return values and their types – function calls, declaration, category – all types of arguments and return values – nesting of functions – recursion – passing arrays, strings to functions – scope visibility and life time of variables. Structures and Unions: Defining a structure – declaring a structure variable – accessing structure members – initialization – copying and comparing – operation on individual members – array of structures – arrays within structures – structures within structures – structures and functions – unions – size of structures – bit fields.

Unit V:

Pointers : Understanding Pointers, Accessing the address of a variable – declaring, initialization of pointer variables – accessing a variable through its pointer – chain of pointers – pointer increments and scale factors – pointers and character strings – pointers as function arguments – pointers and structures. Files: Defining, opening, closing a file – IO Operations on files – Error handling during IO operations – command line arguments.

Text Book:

1.Programming in ANSI C, E.Balagurusamy, 7th Edition, Tata McGraw Hill Publishing Company, 2017.

Unit I : Chapters 1 (Except 1.3-1.7, 1.10-1.12), 2 (Except 2.9, 2.13), 3 (Except 3.13)

Unit II : Chapters 4 – 6

Unit III : Chapters 7, 8 (Except 8.5, 8.6, 8.7, 8.9, 8.10)

Unit IV : Chapters 9 (Except 9.20), 10

Unit V : Chapters 11 (Except 11.8, 11.10, 11.12, 11.14, 11.15, 11.17), 12 (Except 12.6)

Reference Books:

1. Programming with C, Schaum's Outline Series, Gottfried, Tata McGraw Hill, 2006
2. Programming with ANSI and Turbo C , Ashok N.Kamthane , Pearson Education, 2006
3. H. Schildt, C: The Complete Reference, 4th Edition, TMH Edition, 2000.
4. Kanetkar Y., Let us C, BPB Pub., New Delhi, 1999.

COURSE PLAN- ODD SEMESTER

S No	HOURS	TOPIC	BOOK	TEACHING MODE
UNIT-1				
1	1	History of C	T1	Lecture Mode
2	1	Basic Structure of C Program	T1	Lecture Mode
3	1	Character Set, Tokens	T1	Lecture Mode
4	1	Data types, Defining Symbolic Constant	T1	Lecture Mode
5	1	Arithmetic Operators, Relational Operators	T1	Lecture Mode
6	1	Assignment Operator, Logical Operator	T1	Lecture Mode
7	1	Increment, Decrement, Conditional Operator	T1	Lecture Mode
8	1	Bitwise & Special Operators, Arithmetic Expressions	T1	Lecture Mode
9	1	Programs based on Operators	T1	Lecture Mode
10	1	UNIVERSITY QUESTIONS & ASSIGNMENT		
11	1	ICT CLASS(Operators)		
12	1	TEST		

UNIT-2				
13	1	Reading a Character, Writing a Character	T1	Lecture Mode
14	1	Formatted Input, Formatted Output	T1	Lecture Mode
15	1	Decision making with if Statement	T1	Lecture Mode
16	1	If else, Nesting of if else	T1	Lecture Mode
17	1	Else if ladder, Switch statement	T1	Lecture Mode
18	1	Conditional and go to statement	T1	Lecture Mode
19	1	While loop, Do statement	T1	Lecture Mode
20	1	For Statement & jump statements	T1	Lecture Mode
21	1	Programs based on Formatted I/O Operations, Branching & Looping statement	T1	Lecture Mode
22	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
23	1	ICT CLASS(Formatted Input, Formatted Output)		
24	1	TEST		
UNIT-3				
25	1	Introduction of an Array, One dimensional Array	T1	Lecture Mode
26	1	Two dimensional Array	T1	Lecture Mode
27	1	Multi dimensional & Dynamic Array	T1	Lecture Mode
28	1	Declaring and Initializing String Variables	T1	Lecture Mode
29	1	Writing Strings to Screen	T1	Lecture Mode
30	1	Arithmetic Operations on Characters	T1	Lecture Mode
31	1	Comparison of Two Strings	T1	Lecture Mode
32	1	String Handling Functions, Table of Strings	T1	Lecture Mode
33	1	Programs based on One & Two dimensional Array, String Handling	T1	Lecture Mode

		Functions		
34	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
35	1	ICT CLASS(Array)		
36	1	TEST		
UNIT-4				
37	1	Need for User Defined of Function, Elements of User Defined of Function	T1	Lecture Mode
38	1	Definition of Function	T1	Lecture Mode
39	1	Function call, Function Declaration	T1	Lecture Mode
40	1	Categories of Functions	T1	Lecture Mode
41	1	Nesting of Functions, Recursion	T1	Lecture Mode
42	1	Defining a Structure	T1	Lecture Mode
43	1	Structure Initialization	T1	Lecture Mode
44	1	Array of Structure, Unions	T1	Lecture Mode
45	1	Programs based on Function, Structure & Union	T1	Lecture Mode
46	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
47	1	ICT CLASS(Structure)		
48	1	TEST		
UNIT-5				
49	1	Understanding Pointers	T1	Lecture Mode
50	1	Declaring Pointer Variables	T1	Lecture Mode
51	1	Chain of Pointers, Pointers and arrays	T1	Lecture Mode
52	1	Array of Pointers	T1	Lecture Mode
53	1	Functions Returning Pointers	T1	Lecture Mode
54	1	Defining and Opening a File, I/O Operations on File	T1	Lecture Mode
55	1	Error Handling during I/O Operations	T1	Lecture Mode

56	1	Programs based on Pointers	T1	Lecture Mode
57	1	Programs based on Files	T1	Lecture Mode
58	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
59	1	ICT CLASS(Files)		
60	1	TEST		

Sign of HOD	Sign of Faculty
Sign of Dean Academics	

LESSON PLAN

PROGRAMME:III B.SC(CS)-A,B,C	**SEMESTER/ YEAR: V SEM**
COURSE: Theory of Computation	**COURSE CODE:SCSJA53**
FACULTY 'S NAME: **MRS.B.RAJALAKSHMI**	**TOTAL HOURS: 60**

SYLLABUS

Objectives:

1. Enhance/develop students' ability to understand mathematical foundations of computation including automata theory.
2. To Solve computational problems.

COURSE OUTCOME:

CO1: Learn the mathematical foundations of computation including automata theory.
CO2:.Learn the basics of Regular Expression and Automata.
CO3: The theory of formal languages and grammars; the notions of algorithm, decidability, complexity, and computability
CO4:To Understand Properties of Context Free Languages and Normal Forms .
CO5: Analyze and design finite automata, pushdown automata, Turing machines, formal languages, and grammars.

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ES1.3: Theory of Computation (5 Hours – 4 Credits)

Unit I:

Finite Automata : Introduction – Finite State Machine – Acceptance of Strings and Languages – Deterministic Finite Automata – Non Deterministic Finite Automata – Significance of Non Deterministic Finite Automaton – NFA with ε-Transitions – Conversions and Equivalence – NFA to DFA Conversion – Minimization of FSM – Equivalence between Two FSM's – FA with Output – Equivalence of Moore and Mealy Machines.

Unit II:

Regular Expressions : Introduction – Regular Set – Regular Expressions – Finite Automata and Regular Expressions – Conversion of Finite Automata to Regular Expressions
– Identity Rules – Proving Languages not to be Regular – Applications of Regular Expression
– Closure Properties of Regular Languages.

Unit III :
Context Free Grammar : Introduction – Regular Grammar – Equivalence between Regular Grammar and FA – Context Free Grammar – Derivation and languages – Derivation Trees – Relationship between Derivation and Derivation Tree – Ambiguity – Simplification of CFG.

Unit IV:
Properties of Context Free Languages: Introduction – Normal Forms – Applications of Context free Grammar – Properties of Context Free Languages.

Unit V:
Turing Machines : Introduction – Model of Turing machine – Definition of Turing machine – Programming Techniques for Turing Machines – Computable Language and Functions – Two way infinite Tape – Power of Turing Machine – Comparison of FM, PDA and TM.

Text Book:
1.Theory of Computation – A.A.Puntambekar, Technical Publications, Pune, First Edition 2009 Unit I : Chapters 2 Unit II : Chapters 3 Unit III : Chapters 4 Unit IV : Chapters 5 Unit V : Chapter 7.1 to 7.8

COURSE PLAN- ODD SEMESTER

S No	HOURS	TOPIC	BOOK	TEACHING MODE
		UNIT -1		
1	1	Introduction of Finite Automata	T1	Lecture Mode
2	1	Finite State Machine	T1	Lecture Mode
3	1	DFA	T1	Lecture Mode
4	1	NFA	T1	Lecture Mode
5	1	NFA with epsilon transitions	T1	Lecture Mode
6	1	Conversions and Equivalence	T1	Lecture Mode
7	1	NFA to DFA conversion	T1	Lecture Mode
8	1	Minimization of FSM	T1	Lecture Mode
9	1	FA with output	T1	Lecture Mode
10	1	UNIVERSITY QUESTIONS & ASSIGNMENT		

11	1	ICT CLASS(Minimization of FSM)		
12	1	TEST		
UNIT-2				
13	1	Introduction of Regular Expressions	T1	Lecture Mode
14	1	Regular Expressions	T1	Lecture Mode
15	1	Finite Automata and Regular Expressions	T1	Lecture Mode
16	1	Equivalence of NFA and Regular Expression, Direct Method for conversion of RE to FA	T1	Lecture Mode
17	1	Arden's Method	T1	Lecture Mode
18	1	Identity Rules	T1	Lecture Mode
19	1	Providing Languages not to be Regular	T1	Lecture Mode
20	1	Applications of Regular Expression	T1	Lecture Mode
21	1	Closure Properties of RE	T1	Lecture Mode
22	1	UNIVERSITY QUESTIONS & ASSIGNMENT		
23	1	ICT CLASS(Identity Rules)		
24	1	TEST		
UNIT-3				
25	1	Introduction of Context Free Grammar	T1	Lecture Mode
26	1	Regular Grammar	T1	Lecture Mode
27	1	Equivalence between Regular Grammar and FA	T1	Lecture Mode
28	1	Derivation and languages	T1	Lecture Mode
29	1	Derivation trees	T1	Lecture Mode
30	1	Leftmost derivation, Rightmost derivation	T1	Lecture Mode

31	1	Ambiguity	T1	Lecture Mode
32	1	Removal of Useless Symbols	T1	Lecture Mode
33	1	Elimination of epsilon production, Removing Unit Productions	T1	Lecture Mode
34	1	UNIVERSITY QUESTIONS & ASSIGNMENT		
35	1	ICT CLASS(Derivation trees)		
36	1	TEST		
UNIT-4				
37	1	Introduction of CFL	T1	Lecture Mode
38	1	NF	T1	Lecture Mode
39	1	CNF	T1	Lecture Mode
40	1	GNF	T1	Lecture Mode
41	1	Applications of CFG	T1	Lecture Mode
42	1	Properties of CFL	T1	Lecture Mode
43	1	Revision (CNF)	T1	Lecture Mode
44	1	Revision (GNF)	T1	Lecture Mode
45	1	Revision(Properties of CFL)	T1	Lecture Mode
46	1	UNIVERSITY QUESTIONS & ASSIGNMENT		
47	1	ICT CLASS(Properties of CFL)		
48	1	TEST		
UNIT-5				
49	1	Introduction of Turing Machine	T1	Lecture Mode
50	1	Model of Turing machine	T1	Lecture Mode
51	1	Definition of TM	T1	Lecture Mode

52	1	Programming techniques(Storage in FC, Multiple tracks)	T1	Lecture Mode
53	1	Programming techniques(Checking of symbols)	T1	Lecture Mode
54	1	Programming techniques (subroutine)	T1	Lecture Mode
55	1	Computable languages and Functions	T1	Lecture Mode
56	1	Two way Infinite Tape	T1	Lecture Mode
57	1	Power of Turing Machine, comparison of FM, PDA, and TM	T1	Lecture Mode
58	1	UNIVERSITY QUESTIONS & ASSIGNMENT		
59	1	ICT CLASS(Turing machine)		
60	1	TEST		

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LESSON PLAN

PROGRAMME: III(CS) A,B,C	**SEMESTER/ YEAR: 2021-22**
COURSE:RELATIONAL DATABASMANAGEMENT SYSTEMS	**COURSE CODE: SCSJC51**
FACULTY 'S NAME: **Mrs.V.KALAISELVI** **Mrs.G.MAHESWARI** **Mrs .M.VIJI**	**TOTAL HOURS : 75**

SYLLABUS

OBJECTIVES

The main objectives of database management system are data availability, data integrity, data security, and data independence.

COURSE OUTCOME:

CO1: To identify a range of concepts, techniques and tools for creating and editing the interactive multimedia applications.

CO2:To identify the current and future issues related to multimedia technology.

CO3: To identify both theoretical and practical aspects in designing multimedia systems surrounding the emergence of multimedia technologies using contemporary hardware and software technologies.

CO4: Understand analog and digital conversion process

CO5: Discuss the hardware requirement of multimedia system

CS11: Relational Database Management Systems

(5 Hours- 4 Credits)

Unit I:

Overview of database systems: Managing Data – A Historical Perspective – File Systems Versus a DBMS – Advantages of a DBMS – Describing and Storing Data in a DBMS – Queries in a DBMS – Transaction Management – Structure of a DBMS – People Who Work with Databases. 383

Introduction to database design: Database Design and ER Diagrams – Entities, Attributes, and Entity Sets – Relationships and Relationship Sets – Additional Features of ER Model – Conceptual Design with the ER Model.

Unit II:

The relational model: Introduction to the Relational Model – Integrity Constraints over Relations – Enforcing Integrity Constraints – Querying Relational Data – Logical Database Design: ER to Relational – Introduction to Views – Destroying / Altering Tables and Views. **Relational algebra and calculus:** Preliminaries – Relational Algebra: Selection and Projection – Set Operations –Renaming – Joins - Division Relational Calculus: Tuple Relational Calculus – Domain Relational Calculus.

Unit III:

SQL queries, constraints, triggers: The Form of a Basic SQL Query - UNION, INTERSECT, and EXCEPT – Nested Queries – Aggregate Operators – Null Values – Complex Integrity Constraints in SQL – Triggers and Active Databases – Designing Active Databases

Unit IV:

Schema refinement and normal forms: Introduction to Schema Refinement – Functional Dependencies – Reasoning about FD's – Normal Forms – Properties of Decompositions – Normalization – Schema Refinement in Database Design – Other Kinds of Dependencies.

Unit V:

Overview of transaction management: The ACID Properties – Transactions and Schedules – Concurrent Execution of transactions – Lock Based Concurrency Control – Performance of Locking – Transaction Support in SQL – Introduction to Crash Recovery. **Security and authorization:** Introduction to

Database Security - Access Control – Discretionary Access Control – Mandatory Access Control – Security for Internet Applications – Additional Issues Related to Security.

Text book:

Database Management Systems, Raghu Ramakrishnan and Johannes Gehrke, McGraw Hill International Edition, Third Edition, 2003. Unit I : Chapters 1.1 – 1.9, 2.1 – 2.5 Unit II : Chapters 3.1 – 3.7, 4.1 – 4.3 Unit III : Chapters 5.2 – 5.9 Unit IV : Chapters 19.1 – 19.8

Unit V : Chapters 16.1 – 16.7, 21.1 – 21.6

COURSE PLAN- 5th SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
	UNIT-1			
1	I	Overview of Database systems	T1	Off Line
2	I	Managing Data	T1	Off Line
3	I	File system Vs DBMS-Advantages of DBMS	T1	Off Line
4	I	Queries-transaction management	T1	Off Line
5	I	Structure of a DBMS-people who work with Databases.		Off Line
6	I	Database design and ER diagrams		Off Line
7	I	Entity, Attribute, Entity set	T1	Off Line
8	I	Relationships and relationship sets	T1	Off Line
9	I	Additional Features of ER model	T1	Off Line
10	I	Conceptual design with ER model	T1	Off Line
11		Assignment Based on 1 st Unit		Off Line

12		REVISION		Off Line
		REVISION		
12		Test Unit 1		
	UNIT-2			
13	I	Introduction to the Relational Model	T1	Off Line
14	I	integrity constraints	T1	Off Line
15	I	Querying Relational data	T1	Off Line
16	I	Logical Database Design : ER to relational	T1	Off Line
17	I	Introduction to Views		Off Line
18	I	Destroying and Altering tables and views		Off Line
19	I	Relational algebra and calculus-preliminaries-	T1	Off Line
20	I	Relational Algebra	T1	Off Line
21	I	Selection and Projection	T1	Off Line
22	I	Set Operations		Off Line
23	I	Renaming-Joins		Off Line
24		Relational calculus, Tuple Relational calculus		
25		Domain Relational Calculus		
26		Assignment on Unit-II		
	UNIT-3			
27	I	SQL queries, constraints	T1	Off Line
28	I	The form of a Basic SQL Query	T1	Off Line
29	I	UNION,INTERSECT,EXCEPT	T1	Off Line
30	I	Nested Queries	T1	Off Line
31	I	Aggregate Operators	T1	Off Line
32	I	Null Values	T1	Off Line
33	I	Triggers		Off Line

34	I	Active Databases	T1	Off Line
35	I	Designing Active Databases		Off Line
36	I	Types of Triggers		Off Line
37	I	SQL server Trigger before INSERT	T1	Off Line
38	I	Examples for Nested SQL queries	T1	Off Line
39	I	Queries for Aggregate Operators	T1	Off Line
40	I	Assignment Based on 3 rd Unit	T1	Off Line
41	I	Test Unit 3	T1	Off Line
42	I		T1	Off Line
40	I		T1	Off Line
41	I			Off Line
42	I			Off Line
43				
44				
45				
46	**UNIT-4**			
47	I	Introduction to Schema Refinement	T1	Off Line
48	I	Functional Dependencies	T1	Off Line
49	I	Reasoning about FD`s-Normal Forms		Off Line
50	I	1st and 2nd Normal forms	T1	Off Line
51	I	3rd and 4th Normal forms	T1	Off Line
52	I	BCNF and 5NF	T1	Off Line
53	I	Properties of Decomposition	T1	Off Line
54	I	Normalization		Off Line
55	I	Schema Refinement in Database Design		Off Line
56	I	Other Kinds of Dependencies		Off Line
57	I	Functional Dependencies	T1	Off Line
58	I	Assignment Based on 4 th Unit		Off Line

59	I	Test Unit 4	T1	Off Line
60	I	Working with text- text tool-Book Cover-Converting Text Type.		Off Line
61	I	Revision		Off Line
62	I	Class Test		Off Line
63		UNIVERSITY QUESTIONS		
64		ICT CLASS		
65		TEST		
66	**UNIT-5**			
67	I	The ACID Properties	T1	Off Line
68	I	Transactions and schedules	T1	Off Line
68	I	Concurrent execution of transaction	T1	Off Line
69	I	Lock Based Concurrency Control	T1	Off Line
70	I	Transaction Support in SQL	T1	Off Line
71	I	Introduction to Crash Recovery	T1	Off Line
72	I	Introduction to Database Security	T1	Off Line
73	I	Access Control-Discretionary	T1	Off Line
74	I	Access Control	T1	Off Line
75	I	Mandatory Access Control	T1	Off Line
		University question revision		
		University question revision		

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LESSON PLAN

PROGRAMME: III (CA) A,B,C	**SEMESTER/ YEAR: 2021-22**
COURSE: INTRODUCTION TO MULTIMEDIA AND DTP	**COURSE CODE: CCADC54**
FACULTY 'S NAME: **Mrs.V.KALAISELVI** **Mrs.SHAMIM KAMAL** **Mrs .M.VIJI**	**TOTAL HOURS : 75**

SYLLABUS

Objectives:

This syllabus is designed to demonstrate knowledge of terminology related to desktop publishing, graphics and animation using Photoshop and Corel Draw.

COURSE OUTCOME:

CO1: To identify a range of concepts, techniques and tools for creating and editing the interactive multimedia applications.

CO2:To identify the current and future issues related to multimedia technology.

CO3: To identify both theoretical and practical aspects in designing multimedia systems surrounding the emergence of multimedia technologies using contemporary hardware and software technologies.

CO4: Understand analog and digital conversion process

CO5: Discuss the hardware requirement of multimedia system

INTRODUCTION TO MULTIMEDIA AND DTP

UNIT 1: Introduction- Media and Data streams- Medium-Main Properties of multimedia system-multimedia: Images and Graphics- Basic Concepts- Computer Image Processing.

Unit –II Getting started with Photoshop- Photoshop Program window –working with files- Working with images- Images-Image Size- Image Resolution-Editing Images-Color modes –Setting Fore and Background- Making selection –editing selection.

Unit-III The Painting Tools- Drawing Tools-Retaching Tools-Layers-Layers palette- working with layers-Hiding ,showing & deleting layers-Repositioning layers-Flattening Images-Filters.

Unit –IV: Corel Draw Basics : Getting Started with Corel Draw –Corel Draw Screen- Property Bar-Handling Files-Views-Drawing and selection- Getting Familiar with Tool Box- Getting Started With Project-Working with object and shapes- Adding effectsto object- Working with text- text tool-Book Cover-Converting Text

Unit V: Formatting Text –Text editor-Working with Images-Images-Importing Images-Resizing ,Rotating, Skewing and cropping Images-Adding Special effects- Exporting Files- Publishing –Changing Page size-Page Layout and Background- Page Frame-Inserting ,Deleting and renaming Pages-Rulers.

Books for study:

1. Multimedia computing & Applications Ralf stein Metz and Klara Nahrstedt- Pearson Eduction Chaper 2(Page9-17) Chapter4(Page55-80)_

2. Comdex-Multimedias and Web design –Vikas Gupta,Dream Tech Press (Page 47-264)

COURSE PLAN- 5th SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
	UNIT-1			
1	I	Introduction, What is an Multimedia	T1	Off Line
2	I	Media and Data streams	T1	Off Line
3	I	Medium	T1	Off Line
4	I	Main Properties of multimedia system	T1	Off Line
5	I	Revision		Off Line
6	I	Class Test		Off Line
7	I	multimedia: Images,	T1	Off Line
8	I	and Graphics	T1	Off Line
9	I	Basic Concepts	T1	Off Line
10	I	Computer Image Processing	T1	Off Line
11		Revision		Off Line
12		Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
	UNIT-2			
13	I	Getting started with Photoshop	T1	Off Line
14	I	Photoshop Program window	T1	Off Line
15	I	working with files	T1	Off Line
16	I	Working with images	T1	Off Line
17	I	Revision		Off Line
18	I	Class Test		Off Line
19	I	Images-Image Size	T1	Off Line
20	I	Image Resolution-Editing Images	T1	Off Line

21	I	Color modes- Setting Fore and Background- Making selection –editing selection.	T1	Off Line
22	I	Revision		Off Line
23	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
	UNIT-3			
24	I	The Painting Tools	T1	Off Line
25	I	Drawing Tools-Retaching Tools,	T1	Off Line
26	I	Layers,	T1	Off Line
27	I	Layers-Layers palette	T1	Off Line
28	I	working with layers	T1	Off Line
29	I	Hiding ,showing	T1	Off Line
30	I	& deleting layers		Off Line
31	I	Repositioning layers	T1	Off Line
32	I	Revision		Off Line
33	I	Class Test		Off Line
34	I	Flattening Images, deleting layers	T1	Off Line
35	I	Flattening Images	T1	Off Line
36	I	Flattening Images , deleting layers	T1	Off Line
37	I	Flattening Images	T1	Off Line
38	I	Flattening Images,Filters	T1	Off Line
39	I	Repositioning layers	T1	Off Line

40	I	Filters.	T1	Off Line
41	I	Revision		Off Line
42	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
	UNIT-4			
43	I	Corel Draw Basics	T1	Off Line
44	I	Getting Started with Corel Draw,	T1	Off Line
45	I	Corel Draw Screen		Off Line
46	I	Property Bar	T1	Off Line
47	I	Handling Files	T1	Off Line
48	I	Views	T1	Off Line
49	I	Drawing and selection.	T1	Off Line
50	I	Revision		Off Line
51	I	Class Test		Off Line
52	I	Getting Familiar with Tool Box-		Off Line
53	I	Getting Started With Project	T1	Off Line
54	I	Working with object and shapes		Off Line
55	I	Adding effectsto object	T1	Off Line
56	I	Working with text- text tool-Book Cover-Converting Text Type.		Off Line
57	I	Revision		Off Line
58	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		

	UNIT-5			
59	I	Formatting Text	T1	Off Line
60	I	Text editor	T1	Off Line
61	I	Working with Images	T1	Off Line
62	I	Images	T1	Off Line
63	I	Importing Images	T1	Off Line
64	I	Resizing	T1	Off Line
65	I	Rotating	T1	Off Line
66	I	Skewing and cropping Images	T1	Off Line
67	I	Adding Special effects	T1	Off Line
68	I	Exporting Files	T1	Off Line
69	I	Publishing	T1	Off Line
70	I	Changing Page size	T1	Off Line
71	I	Page Layout and Background	T1	Off Line
72	I	Page Frame-Inserting	T1	Off Line
73	I	Deleting and renaming Pages -Rulers.	T1	Off Line
74	I	Revision		Off Line
75	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		

SIGN OF HOD	**SIGN OF FACULTY**
SIGN OF DEAN ACADEMICS	

LESSON PLAN

PROGRAMME: III CS C	**SEMESTER/ YEAR: 2021-2022**
COURSE:Software Engineering	**COURSE CODE: CS13 / SCSJC53**
FACULTY 'S NAME: Mrs.M.Punitha Mrs.R.Lakshmi Mrs.A.Sowmya	**TOTAL HOURS : 75Hrs**

SYLLABUS

Objectives:

- The basic objective of software engineering is to develop methods and procedures for software development that can scale up for large systems
- It can be used consistently to produce high-quality software at low cost and with a small cycle of time.
- To provide the idea of decomposing the given problem into Analysis, Desing, Implementation, Testing and Maintenance phases.
- To provide an idea of using various process models in the software industry according to given circumstances.

Course Outcomes for Assessment in this Test:	
COs	**Course Outcome**
CO1	Software cost Estimation Techniques
CO2	Defining the problem
CO3	Software Requirement Techniques
CO4	Design Techniques and test plans
CO5	Formal Specification Techniques

Unit I:

Introduction to Software Engineering: Some Definitions – Some Size factors – Quality and Productivity Factors – Managerial Issues. **Planning a Software Project:** Defining the Problem – Developing a Solution Strategy – Planning the Development Process – Planning an Organizational Structure – Other Planning Activities.

Unit II:

Software Cost Estimation: Software Cost Factors – Software Cost Estimation Techniques – Staffing-Level Estimation – Estimating Software Maintenance Costs.

Unit III:

Software Requirements Definitions: The Software Requirements Specification – Formal Specification Techniques – Languages and Processors for Requirements Specification.

Unit IV:

Software Design: Fundamental Design Concepts – Modules and Modularization Criteria – Design Notations – Design Techniques – Detailed Design Considerations – Real-Time and Distributed System Design – Test Plans – Milestones, Walkthroughs, and Inspections - Design Guidelines.

Unit V:

Verification and Validation Techniques: Quality Assurance – Static Analysis – Symbolic Execution – Unit Testing and Debugging – System Testing – Formal Verification. **Software Maintenance:** Enhancing Maintainability During Development – Managerial Aspects of Software Maintenance – Configuration Management – Source-Code Metrics – Other Maintenance Tools and Techniques.

Text book:

Software Engineering Concepts, Richard Fairley, Tata McGraw Hill Publishing Company Limited, NewDelhi, 1997. Unit I : Chapters: 1.1 – 1.4, 2.1-2.5 Unit II : Chapters: 3.1 - 3.4 Unit III : Chapters: 4.1 – 4.3 Unit IV : Chapters: 5.1 – 5.9 Unit V : Chapters: 8.1, 8.3 – 8.7, 9.1 – 9.5

Reference Books:

1. Software Engineering – K.L.James, Prentice Hall of India Pvt. Ltd., New Delhi, 2009.
2. Fundamentals of Software Engineering – Rajib Mall, Prentice Hall of India Pvt. Ltd., New Delhi, 2003.
3. Software Engineering (A Practitioner's Approach) - Roger. S.Pressman. McGraw Hill Publication, International Edition, 5th Edition. 2001.

COURSE PLAN- 5st SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	
		UNIT-I		
1	I	Introduction to Software Engineering:Some Definitions	T1	BLACKBOARD
2	II	Some Size factors	T1	PPT
3	III	Quality and Productivity Factors	T1	BLACKBOARD
4	IV	Managerial Issues	T1	VIDEO CLASS
5	V	Test		
6	VI	Planning a Software Project: Defining the Problem	T1	BLACKBOARD
7	I	Developing a Solution Strategy	T1	BLACKBOARD
8	II	Planning the Development Process	T1	BLACKBOARD
9	III	Planning an Organizational Structure Other Planning Activities.	T1	VIDEO CLASS
10	IV	Project size Estimation Techniques	TI	BLACKBOARD
11	V	Revision		
12	VI	TEST		
		UNIT-II		
13	I	**Software Cost Estimation:** Software Cost Factors	T1	BLACKBOARD
14	II	Software Cost Estimation Techniques	T1	BLACKBOARD
15	III	Staffing-Level Estimation	T1	PPT
16	IV	Estimating Software Maintenance Costs.	T1	PPT
17	V	Test		BLACKBOARD
18	VI	Classification of software Model	TI	BLACKBOARD
19	I	Agile Software Development model	TI	VIDEO CLASS
20	II	Delphi cost Estimation Techniques	TI	BLACKBOARD
21	III	Software testing-Blackbox Testing	TI	BLACKBOARD
22	IV	Software testing-WhiteBox Testing	TI	BLACKBOARD

23	V	SoftwareEngineering-coupling , Cohesion	TI	VIDEO CLASS
24	VI	Revision		
25	I	TEST		
		UNIT-III		
26	II	**Software Requirements Definitions:**	T1	
27	III	The Software Requirements Specification Techniques	T1	
28	IV	Languages and Processors for Requirements Specification	T1	PPT
29	V	Constructive cost Model	TI	BLACKBOARD
30	VI	Test	TI	VIDEO CLASS
31	I	Waterfall Model and its uses	TI	BLACKBOARD
32	II	Spiral model, Iterative process	TI	PPT
33	III	Capability maturity Model(CMM)	TI	BLACKBOARD
34	IV	Formal Specification	TI	BLACKBOARD
35	V	Revision		
36	VI	TEST		
		UNIT-IV		
37	I	**Software Design:** Fundamental Design Concepts	T1	
38	II	Modules and Modularization Criteria	T1	VIDEO CLASS
39	III	Design Notations	T1	BLACKBOARD
40	IV	Test		
41	V	Design Techniques	T1	BLACKBOARD
42	VI	Detailed Design Considerations	T1	VIDEO CLASS
43	I	Real-Time and Distributed System Design	T1	BLACKBOARD
44	II	Test Plans – Milestones, Walkthroughs, and Inspections	T1	PPT
45	III	Software Development Life Cycle Model(SDLC)		BLACKBOARD
46	IV	Design Guidelines.	T1	PPT
47	V	Revision		

48	VI	TEST		
		UNIT-V		
49	I	**Verification and Validation Techniques:** Quality Assurance	T1	PPT
50	II	Static Analysis – Symbolic Execution	T1	PPT
51	III	Unit Testing and Debugging – System TestingFormal Verification	T1	BLACKBOARD
52	IV	Test		
53	V	**Software Maintenance:** Enhancing Maintainability During Development	T1	BLACKBOARD
54	VI	Managerial Aspects of Software Maintenance	T1	PPT
55	I	Managerial Aspects of Software Maintenance		BLACKBOARD
56	II	Configuration Management	T1	BLACKBOARD
57	III	Source-Code Metrics	T1	
58	IV	Other Maintenance Tools and Techniques	T1	BLACKBOARD
59	V	Automation Tool	TI	PPT
60	VI	Revision		
61	I	ICT CLASS		
62	II	TEST		

Sign of HOD	Sign of Faculty
Sign of Dean Academics	

LESSON PLAN

PROGRAMME: I M.COM(CA)	**SEMESTER/ YEAR: 2021-22**
COURSE:ERP	**COURSE CODE: TCACC33**
FACULTY 'S NAME: Mrs.S.Kirubha Rani	**TOTAL HOURS : 60 Hrs**

SYLLABUS

Objectives:

Course Outcomes for Assessment in this Test:	
COs	**Course Outcome**
CO1	With the basic concepts of ERP systems for manufacturing or service companies, and the differences among (Material Requirement Planning) MRP, MRP II, and ERP systems;
CO2	Apply the principles of ERP systems, their major components, and the relationships among these components;
CO3	To know about the knowledge of typical ERP systems, and the advantages and limitations of implementing ERP systems.
CO4	To comprehend the technical aspects of ERP systems
CO5	To be able to map business processes using ERP concepts and techniques

ENTERPRISE RESOURCE PLANNING

Unit – I

ERP overview – benefits of ERP – ERP and Related Technologies – Business Process Reengineering (BPR) – Data Warehousing – Data Mining – Online analytical processing – supply chain management.

Unit – II

ERP Implementation: ERP implementation life cycle – Implementation methodology – ERP Implementation – the Hidden costs.

Unit – III

Organizing the Implementation – Vendors, consultants and users – contracts with vendors, consultants and employees – Project management and monitoring.

Unit – IV

Business Module in an ERP package – Finance – Manufacturing – Human Resource – Plant Maintenance – Material Management – Quality Management – Sales and Distribution.

Unit – V

ERP Market place – SAP AG – people soft – Baan Company – Oracle Corporation – QAD – System software associates.

Books Recommended

1. Alexis Leon, ERP Demystified, TATA McGrawhill Publishing Company.

2. Vinod Kumar Gard, Enterprise Resource Planning, Prentice Hall of India.

COURSE PLAN- 5st SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK
		UNIT-1	
1	I	ERP overview	T1
2	II	benefits of ERP	T1
3	III	ERP and Related Technologies	T1
4	IV	Business Process Reengineering	T1
5	V	Data Warehousing	
6	VI	Data Mining	T1
7	I	Online analytical processing	T1
8	II	supply chain management.	T1

9	III	Seminar	T1
10	IV	Revision	T1
11	V	Test	
		UNIT-11	
12	VI	Scripting language characteristics	T1
13	I	Document Object Model (DOM) API	T1
14	II	Event-driven programming	T1
15	III	Test	
16	IV	Debugging client-side programs	T1
17	V	Cascading style Sheet-method and event	T1
18	VI	DOM to modify a document's attributes and styles	T1
19	I	event handlers - on click, on submit	T1
20	II	Revision	
21	III	TEST	
		UNIT-III	
22	IV	The Problem with Servlet	T1
23	V	Implicit JSP Objects,	T1
24	VI	Declaring Variables and Methods	T1
25	I	Test	
26	II	JSP application design	T1
27	III	Users Passing Control and Data between Pages	T1
28	IV	Generating Dynamic Content	T1
29	V	Revision	
30	VI	TEST	
		UNIT-IV	
31	I	DHTML-Introduction	
32	II	DHTML-Dynamic Style	T1
33	III	Difference between HTML and DHTML:	T1
34	IV	**Test**	

35	V	HTML - DOM close() Method.	T1
36	VI	HTML - DOM baseURI Property.	T1
37	I	Test	
38	II	HTML - DOM body Property.	T1
39	III	HTML - DOM createAttribute() Method.	T1
40	IV	HTML - DOM activeElement Property	T1
41	V	HTML - DOM writeln() Method	T1
42	VI	Revision	
43	I	TEST	
		UNIT-V	
44	II	XML-Introduction	T1
45	III	XML fundamentals	T1
46	IV	Seminar-XML	
47	V	Formal definitions of XML	T1
48	VI	XML namespaces	T1
49	I	XML DTDs differ from XML schemas	T1
50	II	Test	
51	III	Processing an XML document	T1
52	IV	XML document using a DOM API	T1
53	V	Low-level web service technologies	T1
54	VI	Other Maintenance Tools and Techniques	T1
55	I	Revision	
56	II	ICT CLASS	
57	III	TEST	

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LESSON PLAN

PROGRAMME:I B.COM(CA)-A,B,C	**SEMESTER/ YEAR: I SEM**
COURSE: INTRODUCTION TO PC SOFTWARE AND MS OFFICE	**COURSE CODE: CCAJC11**
FACULTY 'S NAME: Mrs.G.Nivethitha,Miss .A.Sobhana Rhosaline,Mrs.Shamim	**TOTAL HOURS: 75**

SYLLABUS

Objectives:

1.The primary objective of MS Word is to enable you, the user, to create and edit documents.
2. It trains students how to use MS Office applications to carry out office works.

COURSE OUTCOME:

CO1: Demonstrated a basic understanding of computer hardware and software.

CO2: Demonstrate basic level of competency in programming and logic skills.

CO3: Present conclusions effectively, orally and in writing

CO4: Use productivity software effectively (spreadsheets, database software, and project management software).

CO5: : Identify an area of interest through the selection of elective courses. Apply the skills that are the focus of this program to business scenarios.

INTRODUCTION TO PC SOFTWARE AND MS OFFICE (5 Hours - 4 credits)

Unit I

Introduction to computers-History of computers-Basic Anatomy of computers-Basic components and functions-Input/Output devices-External Storage devices-Types of computers.

Unit II

INTRODUCTION TO WORD – Word Processing – Starting Word – Editing A Document – Move And Copy Text – Formatting Text And Paragraph – Finding And Replacing Text – Spelling and Grammar and auto correct-Using Tabs.

Unit III

Enhancing A Document – Toolbars-column, Tables and other Formatting features – Using Graphics – Templates and wizards-Using Mail Merge – Miscellaneous Features of Word.

Unit IV

EXCEL – Introduction To Work Sheet And Excel – Getting Started With Excel – Editing Cells – Using Commands And Functions – Moving, Copying, Inserting And Deleting Rows And Columns – Printing A Workbook – Creating Charts – Using Date And Time – Naming Ranges And Using Built-In Functions.

Unit V

Database in a worksheet-Formatting commands and drawing toolbar-Miscellaneous commands and functions-Multiple workbooks, pivot table, macros and hyperlinks-OVERVIEW OF POWERPOINT – Creating Presentation – Power point Views – Running Slideshow

Text Book:

1 A first course in computers –Sanjay Saxena Vikas publishing House PVT Ltd,Chapter 1,2,3.

2. PC Software For Windows 98 Made Simple – R. K. Taxali – Tata Mcgraw Hill

COURSE PLAN- 1st SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
		UNIT-1		
1	I	Introduction to computers	T1	Online-**PDF**
2	II	History of computers	T1	Online-**PDF**
3	III	Basic Anatomy of computers	T1	Online-**PDF**
4	IV	Basic components and functions	T1	Online-**PDF**
5	V	Input/Output devices	T1	Off Line-**Blackboard**
6	I	External Storage devices	T1	Off Line-**Blackboard**
7	II	Types of computers.	T1	Off Line-**Blackboard**
8	III	Hybrid computers	T1	Off Line-**Blackboard**
9	IV	UNIVERSITY QUESTIONS &ASSIGNMENT		
10	V	ICT CLASS		
11	I	TEST		
		UNIT-2		
12	II	**INTRODUCTION TO WORD**	T1	Off Line-**Blackboard**
13	III	Word Processing	T1	Off Line-**Blackboard**
14	IV	Starting Word	T1	Off Line-**Blackboard**
15	V	Editing A Document	T1	Off Line-**Blackboard**
16	I	Move And Copy Text	T1	Off Line-**Blackboard**
17	II	Formatting Text, Paragraph Formatting	T1	Off Line-**Blackboard**
18	II	Finding a Text, Replacing a text	T1	Off Line-**Blackboard**
19	III	Spelling and Grammar	T1	Off Line-**Blackboard**
20	IV	Autocorrect	T1	Off Line-**Blackboard**
21	V	Autocomplete, Using Tabs	T1	Off Line-**Blackboard**
22	I	UNIVERSITY QUESTIONS &ASSIGNMENT		
23	II	ICT CLASS		
24	III	TEST		
		UNIT -3		
25	IV	Enhancing A Document	T1	Off Line-**Blackboard**

26	V	Using Header and footer,Print preview	T1	Off Line-**Blackboard**
27	I	Toolbars	T1	Off Line-**Blackboard**
28	II	Column, Creating a tables, formatting a table	T1	Off Line-**Blackboard**
29	III	Sorting text and other formatting features	T1	Off Line-**Blackboard**
30	IV	Using the drawing toolbar	T1	Off Line-**Blackboard**
31	V	Using wordart, Using graphics		Off Line-**Blackboard**
32	I	Using the wizard to create a document	T1	Off Line-**Blackboard**
33	II	Creating a template	T1	Off Line-**Blackboard**
34	III	Mail Merge	T1	Off Line-**Blackboard**
35	IV	A practical example of mail merge	T1	Off Line-**Blackboard**
36	V	Miscellaneous features of word	T1	Off Line-**Blackboard**
37	I	Creating Charts	T1	Off Line-**Blackboard**
38	II	UNIVERSITY QUESTIONS &ASSIGNMENT		
39	III	ICT CLASS		
40	IV	TEST		
UNIT-4				
41	V	Introduction To Work Sheet	T1	Off Line-**Blackboard**
42	I	Introduction to Excel	T1	Off Line-**Blackboard**
43	II	Organisation of the worksheet area	T1	Off Line-**Blackboard**
44	III	Getting Started With Excel	T1	Off Line-**Blackboard**
44	IV	Editing cells	T1	Off Line-**Blackboard**
45	V	Using Range,	T1	Off Line-**Blackboard**
46	I	Creating a workbook	T1	Off Line-**Blackboard**
47	III	Moving data	T1	Off Line-**Blackboard**
48	III	Copying data	T1	Off Line-**Blackboard**
49	IV	Erasing part of a worksheet	T1	Off Line-**Blackboard**
50	V	Deleting rows	T1	Off Line-**Blackboard**
51	I	Delete columns	T1	Off Line-**Blackboard**
52	II	Printing A Workbook	T1	Off Line-**Blackboard**
53	III	Creating Charts	T1	Off Line-**Blackboard**
54	IV	Using Date function	T1	Off Line-**Blackboard**
55	V	Using time function	T1	Off Line-**Blackboard**
56	I	Naming Ranges	T1	Off Line-**Blackboard**
57	II	Using Built-In Functions.		Off Line-**Blackboard**
58	III	UNIVERSITY QUESTIONS &ASSIGNMENT		

59	IV	ICT CLASS		
60	V	TEST		
UNIT-5				
61	I	Database in a worksheet	T1	Online-**PDF**
62	II	Formatting commands,	T1	Online-**PDF**
63	III	Drawing toolbar	T1	Online-**PDF**
64	IV	Miscellaneous commands	T1	Online-**PDF**
65	V	Functions	T1	Online-**PDF**
66	I	Multiple workbooks	T1	Online-**PDF**
67	II	Pivot table	T1	Online-**PDF**
68	III	Macros	T1	Online-**PDF**
69	IV	Hyperlinks	T1	Online-**PDF**
70	V	Overview of PowerPoint	T1	Online-**PDF**
71	I	Creating Presentation, Power point Views	T1	Online-**PDF**
72	II	Running Slide Show	T1	Online-**PDF**
73	III	UNIVERSITY QUESTIONS &ASSIGNMENT		
74	IV	ICT CLASS		
75	V	TEST		

Sign of HOD	Sign of Faculty
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LESSON PLAN

PROGRAMME:II B.SC(CS)-'A'	**SEMESTER/ YEAR: 2020-21**
COURSE:Digital Principle and Computer Organization	**COURSE CODE: SCSJC32**
FACULTY 'S NAME:A.Sobhana Rhosaline	**TOTAL HOURS:72**

SYLLABUS

Objectives:

1. The subject strengthen knowledge of students about hardware and software ,memory board, Arithmetic logic unit.
2. The students become more familiar about microprocessor devices.

COURSE OUTCOME:

CO1: Understand how to implement memory chips, boards, modules and caches.
CO2: **:** Relate to arithmetic for ALU implementation.
CO3: Understand the basics of hardwired and micro-programmed control of the CPU.
CO4: Learn about various I/O devices and the I/O interface.

CO5: Build large memories using small memories for better performance.

Unit I

Binary Number System- Binary to decimal- Decimal to binary- Hexa decimal- ASCII code- Excess-3 code- Gray code - The Basic Gates - NOT, OR, AND- Universal Logic Gates -NOR, NAND

Unit II

Boolean Laws and Theorems- Sum of Products method- Truth table to Karnaugh Map- Pairs, Quads, Octets- Don't care Conditions- Product-of sums methods- Product-of sums Simplifications- Multiplexers- Demultiplexers - 1-of-16-Decoder- BCD-to-decimal Decoders- Seven-segment Decoders- Encoders- Exclusive-OR Gates- Parity Generators and Checkers

Unit III

Binary Addition- Binary Subtraction-2's Complement Representation-2's Complement Arithmetic- Arithmetic Building Blocks- Adder-Subtractor- RS Flip-Flops- Gated Flip-Flops- Edge-triggered RS Flip-Flops- Edge triggered D Flip-Flops- Edge triggered JK Flip-Flops- JK Master Slave Flip-Flops

Unit IV

Serial In - Serial Out- Serial In - Parallel Out- Parallel In - Parallel Out- Ring Counter- Ripple Counter- Synchronous Counter

Unit V

Instruction Codes- Computer Register- Computer Instructions- Timing And Control- Instruction Cycle- Control Memory- Address Sequencing- General Register Organization- Stack Organization- Instruction Formats- Data Transfer and Manipulations- Addressing Modes- Program Control

Text Book:

1.Digital Principles and Applications - Donald P Leach, Albert Paul Malvino, Goutam Saha, 8th edition, McGrow-Hill Education, 3rd reprint 2015

2.Computer System Architecture- M. Morris Mano, Pearson Education, 3rd Edition - 2007.

COURSE PLAN- 3rd SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
	UNIT-1			
1	1	Binary Number System	T1	Online-**PDF**
2	1	Binary to decimal	T1	Online-**PDF**
3	1	Decimal to binary	T1	Online-**PDF**
4	1	Hexa decimal	T1	Online-**PDF**
5	1	ASCII code	T1	Online-**PDF**
6	1	Excess-3 code	T1	Online-**PDF**
7	1	Gray code	T1	Online-**PDF**
8	1	The Basic Gates - NOT, OR, AND	T1	Online-**PDF**
9	2	Universal Logic Gates -NOR, NAND	T1	Online-**PDF**
10	2	UNIVERSITY QUESTIONS		
11		ICT CLASS		
12	2	TEST		
	UNIT-2			
13	1	Boolean Laws and Theorems	T1	Off Line-**Blackboard**
14	1	Sum of Products method	T1	Online-**PDF**
15	1	Truth table to Karnaugh Map	T1	Off Line-**Blackboard**
16	1	Pairs, Quads, Octets	T1	Online-**PDF**
17	1	Don't care Conditions	T1	Off Line-**Blackboard**
18	1	Product-of sums methods	T1	Off Line-**Blackboard**
19	1	Product-of sums Simplifications	T1	Online-**PDF**
20	1	Multiplexers	T1	Online-**PDF**
21	1	Demultiplexers - 1-of-16	T1	Online-**PDF**
22	1	Decoder	T1	Off Line-**Blackboard**
23	1	BCD-to-decimal Decoders	T1	Off Line-**Blackboard**
24	1	Seven-segment Decoders	T1	Off Line-**Blackboard**
25	1	Encoders	T1	Off Line-**Blackboard**
26	1	Exclusive-OR Gates	T1	Off Line-**Blackboard**
27	1	Parity Generators and Checkers	T1	Off Line-**Blackboard**
28	2	UNIVERSITY QUESTIONS		
29		ICT CLASS		
30	1	TEST		
	UNIT-3			
31	1	Binary Addition	T1	Off Line-**Blackboard**
32	1	Binary Subtraction	T1	Off Line-**Blackboard**

33	1	2's Complement Representation	T1	Off Line-**Blackboard**
34	1	2's Complement Arithmetic	T1	Off Line-**Blackboard**
35	2	Arithmetic Building Blocks	T1	Off Line-**Blackboard**
36	1	Adder-Subtractor	T1	Off Line-**Blackboard**
37	1	RS Flip-Flops	T1	Off Line-**Blackboard**
38	1	Gated Flip-Flops	T1	Off Line-**Blackboard**
39	2	Edge-triggered RS Flip-Flops	T1	Off Line-**Blackboard**
40	1	Edge triggered D Flip-Flops	T1	Off Line-**Blackboard**
41	1	Edge triggered JK Flip-Flops	T1	Off Line-**Blackboard**
42	2	JK Master Slave Flip-Flops		
43	2	UNIVERSITY QUESTIONS		
44		ICT CLASS		
45	2	TEST		
	UNIT-4			
46	1	Serial In - Serial Out	T1	Off Line-**Blackboard**
47	1	Serial In - Parallel Out	T1	Off Line-**Blackboard**
48	1	Parallel In - Parallel Out	T1	Off Line-**Blackboard**
49	1	Ring Counter	T1	Off Line-**Blackboard**
50	1	Ripple Counter	T1	Off Line-**Blackboard**
51	2	Synchronous Counter	T1	Off Line-**Blackboard**
52	2	UNIVERSITY QUESTIONS		
53		ICT CLASS		
54	2	TEST		
	UNIT-5			
55	2	Instruction Codes	T2	Off Line-**Blackboard**
56	1	Computer Register	T2	Off Line-**Blackboard**
57	1	Computer Instructions	T2	Off Line-**Blackboard**
58	1	Timing And Control	T2	Off Line-**Blackboard**
59	2	Instruction Cycle	T2	Off Line-**Blackboard**
60	1	Control Memory	T2	Off Line-**Blackboard**
61	3	Address Sequencing	T2	Off Line-**Blackboard**
62	1	General Register Organization	T2	Off Line-**Blackboard**
63	3	Stack Organization	T2	Off Line-**Blackboard**
64	2	Instruction Formats	T2	Off Line-**Blackboard**
65	3	Data Transfer and Manipulations	T2	Off Line-**Blackboard**
66	1	Addressing Modes	T2	Off Line-**Blackboard**
67	3	Program Control	T2	Off Line-**Blackboard**
	2	UNIVERSITY QUESTIONS		
		ICT CLASS		
	1	TEST		

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LESSON PLAN

Programme : BSC	Semester / Year : 5th Sem, 2021 -2022
Cource : Data Communication and Computer Network	Cource Code : ECSJC14
Faculty Name : Mrs. B.Subashini	Total Hours: 75

Objective

This course is to provide students with an overview of the concepts and fundamentals of data communication and computer networks

Course Outcomes

CO1: Understand the rudiments of how computers communicate.
CO2: Be familiar with the architecture of a number of different networks.
CO3: Understand the principles of protocol layering.
CO4: Be familiar with modern communication systems.
CO5: Understand the basic aspects of packet-based protocol design and implementation.

SYLLABUS

Unit I:

Data Communications, Data Networking and the Internet: Data Communications and Networking for Today's Enterprise – A Communication Model - Data Communications – Networks – The Internet – An Example Configuration **Protocol Architecture, TCP/IP and Internet-Based Applications** The Need for a Protocol Architecture – The TCP/IP Protocol Architecture – The OSI Model – Standardization within a Protocol Architecture- Traditional Internet-Based Applications – Multimedia **Transmission Media:** Guided Transmission Media – Wireless Transmission - Wireless Propagation – Line of Sight Transmission

Unit II:

Digital Data Communication Techniques- Asynchronous and Synchronous Transmission – Types of Errors – Error Detection –Error Correction –Line Configuration **Data Link Control Protocols –** Flow Control – Error Control – High Level Data Link Control **Multiplexing –** Frequency Division Multiplexing – Synchronous Time Division Multiplexing – Statistical Time Division Multiplexing – Asymmetric Digital Subscriber Line.

Unit III:

Wide Area Networks: Circuit Switching and Packet Switching – Switched Communication Networks – Circuit Switching Networks - Circuit Switching Concepts – Softswitch Architecture – Packet Switching Principles – X .25 – Frame Relay **Asynchronous Transfer Mode –** Protocol Architecture – ATM Logical Connections –ATM Cells – Transmission of ATM Cells **Routing in Switched Networks –** Routing in Packet switching Networks – Examples : Routing in ARPANET- Least-Cost Algorithms

Unit IV:

Local Area Networks: Background – Topologies of Transmission Media – lan Protocol Architecture – Bridges – Layer 2 and Layer 3 Switches **Internet and Transport Protocols - Internet Protocols –** Basic Protocol Functions – Principles of Internetworking – Internet Protocol Operation – Internet Protocol – IPv6 **Internetwork Operation** Multicasting – Routing Protocols - Integrated Services Architecture – Differentiated Services – Service Level Agreements – IP Performance Metrics

Unit V:

Transport Protocols - Connection-Oriented Transport Protocol Mechanisms – TCP –TCP Congestion Control – UDP **Internet Applications - Electronic Mail and Network Management -** Electronic Mail: SMTP and MIME – Network Management SNMP **Internet Applications – Internet Directory Service and World Wide Web –** Internet Directory Service DNS – Web Access HTTP

Text Book

Data and Computer Communication - William Stallings – 10th Edition – Pearson, 2013

Unit I : Chapters 1,2,4
Unit II : Chapters 6,7,8.1-8.4
Unit III : Chapters 10,11.1-11.4,12
Unit IV : Chapters 15,18.1-18.6,19
Unit V : Chapters 20,22,23

Reference Books

1. Computer Networks – Andrew S. Tanenbaum and David J Wetherall– 5th Edition Pearson , 2013
2. Data communications and Networking - Behrouz A. Forouzan – 4th Edition - Mc Graw Hill, 2017.
3. Data Communication and Networks - Bhushan Trivedi , Oxford University Press 2016.

S.no	Hours	Title	Book	Teaching Mode
UNIT- I				
1		Data Communications and Networking for Today's Enterprise	T1	Lecture Mode
2		Communication Model	T1	Lecture Mode
3		Data Communications	T1	Lecture Mode
4		The Need for a Protocol Architecture	T1	Lecture Mode
5		The TCP/IP Protocol Architecture	T1	Lecture Mode
6		The OSI Model	T1	Lecture Mode
7		Traditional Internet-Based Applications	T1	Lecture Mode
8		Guided Transmission Media	T1	Lecture Mode
9		Wireless Transmission	T1	Lecture Mode
10		Wireless Propagation	T1	Lecture Mode
11		Line of Sight Transmission	T1	Lecture Mode
12		ICT CLASS		
UNIT -II				
13		Asynchronous and Synchronous Transmission	T1	Lecture Mode
14		Types of Errors	T1	Lecture Mode
15		Error Detection	T1	Lecture Mode
16		Error Correction	T1	Lecture Mode
17		Line Configuration	T1	Lecture Mode
18		Flow Control	T1	Lecture Mode
19		Error Control	T1	Lecture Mode
20		High Level Data Link Control	T1	Lecture Mode
21		Frequency Division Multiplexing	T1	Lecture Mode
22		Synchronous Time	T1	Lecture Mode
23		Division Multiplexing	T1	Lecture Mode
24		Statistical Time Division Multiplexing	T1	Lecture Mode
25		Asymmetric Digital Subscriber Line	T1	Lecture Mode
UNIT - III				
26		**Circuit Switching and Packet Switching**	T1	Lecture Mode
27		Switched Communication Networks	T1	Lecture Mode
28		Circuit Switching Concepts	T1	Lecture Mode
29		Softswitch Architecture	T1	Lecture Mode
30		Packet Switching Principles	T1	Lecture Mode
31		X .25 – Frame Relay	T1	Lecture Mode
32		Protocol Architecture	T1	Lecture Mode
33		ATM Logical Connections	T1	Lecture Mode
34		ATM Cells	T1	Lecture Mode
35		Transmission of ATM Cells	T1	Lecture Mode
36		Routing in Packet switching Networks	T1	Lecture Mode
37		Routing in ARPANET	T1	Lecture Mode

38		Least-Cost Algorithms	T1	Lecture Mode
		ICT CLASS		
UNIT - IV				
39		Local Area Networks	T1	Lecture Mode
40		Topologies of Transmission Media	T1	Lecture Mode
41		Lan Protocol Architecture	T1	Lecture Mode
42		Bridges	T1	Lecture Mode
43		Layer 2 and Layer 3 Switches	T1	Lecture Mode
44		Layer 2 and Layer 3 Switches	T1	Lecture Mode
45		Internet and Transport Protocols	T1	Lecture Mode
46		Internet Protocols	T1	Lecture Mode
47		Basic Protocol Functions	T1	Lecture Mode
48		Principles of Internetworking	T1	Lecture Mode
49		Internet Protocol Operation	T1	Lecture Mode
50		Internet Protocol	T1	Lecture Mode
51		IPv6	T1	Lecture Mode
52		Multicasting	T1	Lecture Mode
53		Routing Protocols	T1	Lecture Mode
54		Integrated Services Architecture	T1	Lecture Mode
55		Differentiated Services	T1	Lecture Mode
56		Service Level Agreements	T1	Lecture Mode
57		IP Performance Metrics	T1	Lecture Mode
58		ICT CLASS		
UNIT - V				
59		**Transport Protocols**	T1	Lecture Mode
60		Connection-Oriented Transport Protocol Mechanisms	T1	Lecture Mode
61		TCP	T1	Lecture Mode
62		TCP Congestion Control	T1	Lecture Mode
63		UDP	T1	Lecture Mode
64		Internet Applications	T1	Lecture Mode
65		Electronic Mail and Network Management	T1	Lecture Mode
66		SMTP and MIME	T1	Lecture Mode
67		Network Management SNMP	T1	Lecture Mode
68		Internet Applications	T1	Lecture Mode
69		Internet Directory Service and World Wide Web	T1	Lecture Mode
70		Internet Directory Service DNS	T1	Lecture Mode
		Web Access HTTP	T1	Lecture Mode
71		ICT CLASS		
72		DISCUSS PREVIOUS YEAR QUESTION PAPERS		

73		MOCK TEST1		
74		MOCK TEST2		
75		MOCK TEST3		

Signature of the HOD

Signature of the Dean

LESSON PLAN

PROGRAMME: II BBA	**SEMESTER: III**
COURSE: COMPUTER APPLICATIONS IN BUSINESS	**COURSE CODE: ABAJC33**
FACULTY'S NAME: Mrs.T.Uma Jothi	**TOTAL HOURS: 75hrs**

SYLLABUS

OBJECTIVES:

1. Practice basic keyboarding and mouse use. Learn basic word processing skills with Microsoft Word, such as text input formatting and to include some graphics such as pictures and charts.
2. Able to access the Internet, use Internet directories and search engines. Learn the basics of e-mail.

COURSE OUTCOME:

CO1: To know about basics of Computer, I/O and Storage devices.
CO2: Familiarizing with MS Word, Create and Editing Documents.
CO3: To understand MS Excel and perform mathematical calculations and data manipulation.
CO4: Working in MS Access,Create/Update Tables,Query handling and Database management.
CO5: To know about basics of Internet and usage of Internet applications.

Unit I -BASICS OF COMPUTERS

Introduction – Meaning – Characteristics – Types – Advantages and Limitations of a Computer – Computer Input Devices**:** Key Board – Mouse – Scanners – Digital Camera – Touch Screen. Output Devices**:** Monitors – Printers. Storage Devices: Hard Disk – RAM – CD-ROM, Operating Systems: Windows.

Unit II - MS WORD

Introduction – Menus – Shortcut menus – Tool bars **Files:** Creating – Opening – Saving – Renaming – Closing Documents and Text **Format & Paragraph:** Formatting and Paragraphs – Attributes – Moving – Copying – Pasting **Bulleting:** Bullet and Number lists – Nested lists – Formatting lists **Tables:** Draw **–** Insert **–** Rows & Columns – Moving– Resizing – Table Properties. **Page Formatting:** Margins – Page Size & Orientation – Headers and Footers – Page Numbers –Preview and Printing

Unit III - MS EXCEL

Introduction to spread sheet – components of EXCEL opening screen – Building worksheet. Entering data in worksheet – editing, deleting, copying and moving cells and ranges – adjusting column width and row height – inserting and deleting cells, rows and columns – using auto-fill – creating and working with formula –

functions in EXCEL – Graphs and Charts: Types of charts – elements of a chart – creating a chart.

Unit IV- MS ACCESS

Introduction to Access and Database – Database objects – creating database – Creating tables: creating a table using data sheet, design view and table wizard – data types – primary key – entering and modifying data in a table – Creating forms: creating auto forms – creating forms using design view and form wizard – entering and editing records in forms – Creating queries: types of queries – creating queries using query wizard – Creating reports: creating auto reports – creating reports using report wizard.

Unit V - INTERNET

Internet – Scope – Uses and advantages - Applications of internet in business – Email - Opening an Email Account– Sending and Receiving E-mails using internet – Introduction to online shopping.

Text Book:

1. VikasGuptha, Reprint (2012), Comdex Computer Course Kit, Wiley - Dreamtech, New Delhi, ISBN-9788177221718.

Reference Books:

1. S.V. SrinivasaVallaban, ―Computer applications in Business‖, Sultan chand and sons, New Delhi – 110 002 - Third edition – 2006 – reprint 2011.
2. Sanjay Saxena, S.Mohan Naidu, Rajneesh (2016) Computer Application In Management, AgarwalAmit K Kashyap&Vikas Publishing House, New Delhi, ISBN –978-93-5259-115-2
3. Nasib Singh Gill Handbook of Computer Fundamentals, 2016)1st Edition, Khanna publication,ISBN-978938260967

COURSE PLAN- 3rd SEMESTER

S.No	HOURS	TOPIC	BOOK	TEACHING MODE
UNIT-1				
1	1	Introduction – Meaning – Characteristics, Advantages and Limitations of a Computer	T1	Online
2	1	Types	T1	Online
3	2	Computer Input Devices	T1	Online
4	2	Output Devices	T1	Online
5	2	Storage Devices	T1	Online
6	1	OperatingSystems:Windows.	T1	Online
7	2	UNIVERSITY QUESTIONS & REVISION		
8	2	ICT CLASS		
9	2	TEST		

S.No	HOURS	TOPIC	BOOK	TEACHING MODE
UNIT-2				
10	2	Introduction – Menus – Shortcut menus – Tool bars	T1	Online
11	1	**Files:** Creating – Opening – Saving – Renaming – Closing Documents	T1	Online
12	2	**Text Format & Paragraph:** Formatting and Paragraphs – Attributes – Moving – Copying – Pasting	T1	Online
13	1	**Bulleting:** Bullet and Number lists– Nested lists – Formatting lists		Online
14	1	**Tables**		Online
15	2	**Page Formatting**		Online
16	2	UNIVERSITY QUESTIONS & REVISION		
17	2	ICT CLASS		
18	2	TEST		
UNIT-3				
19	2	Introduction to spread sheet – components of EXCEL opening screen – Building worksheet.	T1	Offline/Black board &LAB
20	1	Entering data in worksheet – editing, deleting, copying and moving cells and ranges	T1	Offline/Black board
21	1	Adjusting column width and row height – inserting and deleting cells, rows and columns	T1	Offline/Black board
22	1	Auto-fill		Offline/Black board
23	2	Creating and working with formula		Offline/Black board
24	2	Functions in EXCEL		Offline/Black board
25	2	Graphs and Charts		Offline/Black board
26	2	UNIVERSITY QUESTIONS & REVISION		
27	2	ICT CLASS		
28	2	TEST		
UNIT-4				
29	1	Introduction to Access and Database – Database objects	T1	Offline/LAB
30	1	Creating Database	T1	Offline/LAB
31	1	Creating Tables		Offline/LAB

S.No	HOURS	TOPIC	BOOK	TEACHING MODE
32	1	Creating Forms		Offline/LAB
33	1	Creating Queries		Offline/LAB
34	1	Creating Reports		Offline/LAB
35	3	UNIVERSITY QUESTIONS & REVISION		
36	2	ICT CLASS		
37	2	TEST		
UNIT-5				
38	1	Internet – Scope – Uses and advantages	T1	Offline/Black board
39	1	Applications of internet in business	T1	Offline/Black board
40	1	Email	T1	Offline/Black board
41	1	Introduction to Online Shopping	T1	Offline/Black board
42	2	UNIVERSITY QUESTIONS & REVISION		
43	1	ICT CLASS		
44	2	TEST		

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LESSON PLAN

PROGRAMME:I B.SC(CS)-A	**SEMESTER/ YEAR: I SEM**
COURSE: Programming in C	**COURSE CODE:SCSJC11**
FACULTY 'S NAME: **Mrs.B.Rajalakshmi** **Mrs.T.Uma Jothi**	**TOTAL HOURS: 60**

SYLLABUS

Objectives:

1. Programming in ANSI C strengthens the knowledge of the students about C Programming and motivates the students to learn programming languages enthusiastically.
2. It helps the students to write programs on their own.

COURSE OUTCOME:

CO1: Understanding a functional hierarchical code organization
CO2: Ability to work with textual information, characters and strings.
CO3: Ability to work with arrays of complex objects.
CO4: Ability to define and manage data structures based on problem subject domain
CO5: Ability to develop and Managing Files.

CS1: Programming in C (4 Hours - 4 credits)

Unit I:

Overview of C: History of C – Importance of C – Basic Structure of C Programs – Programming Style – Character Set – C Tokens – Keywords and Identifiers – Constants, Variables and Data Types – Declaration of Variables – Defining Symbolic Constants – Declaring a variable as a constant – overflow and underflow of data – Operators and Expressions: Arithmetic, relational, logical, assignment operators – increment and decrement operators, conditional operators, bitwise operators, special operators – Arithmetic Expressions- Evaluation of Expressions – Precedence of Arithmetic Operators – Type Conversions in Expressions – Operator Precedence and Associativity – Mathematical functions.

Unit II:

Managing I/O Operations: Reading and Writing a Character – Formatted Input, Output – Decision Making & Branching: if statement - if else statement - nesting of if else statements - else if ladder – switch statement – the ?: operator – goto statement – the while statement – do statement – the for statement – jumps in loops.

Unit III:

Arrays: One-Dimensional Arrays – Declaration, Initialization – Two-Dimensional Arrays – Multi-dimensional Arrays – Dynamic Arrays – Initialization. Strings: Declaration, Initialization of string variables – reading and writing strings – string handling functions.

Unit IV:

User-defined functions: Need – multi-function programs – elements of user defined functions – definition – return values and their types – function calls, declaration, category – all types of arguments and return values – nesting of functions – recursion – passing arrays, strings to functions – scope visibility and life time of variables. Structures and Unions: Defining a structure – declaring a structure variable – accessing structure members – initialization – copying and comparing – operation on individual members – array of structures – arrays within structures – structures within structures – structures and functions – unions – size of structures – bit fields.

Unit V:

Pointers : Understanding Pointers, Accessing the address of a variable – declaring, initialization of pointer variables – accessing a variable through its pointer – chain of pointers – pointer increments and scale factors – pointers and character strings – pointers as function arguments – pointers and structures. Files: Defining, opening, closing a file – IO Operations on files – Error handling during IO operations – command line arguments.

Text Book:

1.Programming in ANSI C, E.Balagurusamy, 7th Edition, Tata McGraw Hill Publishing Company, 2017. Unit I : Chapters 1 (Except 1.3-1.7, 1.10-1.12), 2 (Except 2.9, 2.13), 3 (Except 3.13) Unit II : Chapters 4 – 6 Unit III : Chapters

7, 8 (Except 8.5, 8.6, 8.7, 8.9, 8.10) Unit IV : Chapters 9 (Except 9.20), 10 Unit V : Chapters 11 (Except 11.8, 11.10, 11.12, 11.14, 11.15, 11.17), 12 (Except 12.6)

Reference Books:

1. Programming with C, Schaum's Outline Series, Gottfried, Tata McGraw Hill, 2006
2. Programming with ANSI and Turbo C , Ashok N.Kamthane , Pearson Education, 2006
3. H. Schildt, C: The Complete Reference, 4th Edition, TMH Edition, 2000.
4. Kanetkar Y., Let us C, BPB Pub., New Delhi, 1999.

COURSE PLAN- ODD SEMESTER

S No	HOURS	TOPIC	BOOK	TEACHING MODE
UNIT-1				
1	1	History of C	T1	Lecture Mode
2	1	Basic Structure of C Program	T1	Lecture Mode
3	1	Character Set, Tokens	T1	Lecture Mode
4	1	Data types, Defining Symbolic Constant	T1	Lecture Mode
5	1	Arithmetic Operators, Relational Operators	T1	Lecture Mode
6	1	Assignment Operator, Logical Operator	T1	Lecture Mode
7	1	Increment, Decrement, Conditional Operator	T1	Lecture Mode
8	1	Bitwise & Special Operators, Arithmetic Expressions	T1	Lecture Mode
9	1	Programs based on Operators	T1	Lecture Mode
10	1	UNIVERSITY QUESTIONS & ASSIGNMENT		
11	1	ICT CLASS		
12	1	TEST		
UNIT-2				
13	1	Reading a Character, Writing a Character	T1	Lecture Mode
14	1	Formatted Input, Formatted Output	T1	Lecture Mode
15	1	Decision making with if Statement	T1	Lecture Mode

16	1	If else, Nesting of if else	T1	Lecture Mode
17	1	Else if ladder, Switch statement	T1	Lecture Mode
18	1	Conditional and go to statement	T1	Lecture Mode
19	1	While loop, Do statement	T1	Lecture Mode
20	1	For Statement & jump statements	T1	Lecture Mode
21	1	Programs based on Formatted I/O Operations, Branching & Looping statement	T1	Lecture Mode
22	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
23	1	ICT CLASS		
24	1	TEST		
UNIT-3				
25	1	Introduction of an Array, One dimensional Array	T1	Lecture Mode
26	1	Two dimensional Array	T1	Lecture Mode
27	1	Multi dimensional & Dynamic Array	T1	Lecture Mode
28	1	Declaring and Initializing String Variables	T1	Lecture Mode
29	1	Writing Strings to Screen	T1	Lecture Mode
30	1	Arithmetic Operations on Characters	T1	Lecture Mode
31	1	Comparison of Two Strings	T1	Lecture Mode
32	1	String Handling Functions, Table of Strings	T1	Lecture Mode
33	1	Programs based on One & Two dimensional Array, String Handling Functions	T1	Lecture Mode
34	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
35	1	ICT CLASS		
36	1	TEST		
UNIT-4				

37	1	Need for User Defined of Function, Elements of User Defined of Function	T1	Lecture Mode
38	1	Definition of Function	T1	Lecture Mode
39	1	Function call, Function Declaration	T1	Lecture Mode
40	1	Categories of Functions	T1	Lecture Mode
41	1	Nesting of Functions, Recursion	T1	Lecture Mode
42	1	Defining a Structure	T1	Lecture Mode
43	1	Structure Initialization	T1	Lecture Mode
44	1	Array of Structure, Unions	T1	Lecture Mode
45	1	Programs based on Function, Structure & Union	T1	Lecture Mode
46	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
47	1	ICT CLASS		
48	1	TEST		
UNIT-5				
49	1	Understanding Pointers	T1	Lecture Mode
50	1	Declaring Pointer Variables	T1	Lecture Mode
51	1	Chain of Pointers, Pointers and arrays	T1	Lecture Mode
52	1	Array of Pointers	T1	Lecture Mode
53	1	Functions Returning Pointers	T1	Lecture Mode
54	1	Defining and Opening a File, I/O Operations on File	T1	Lecture Mode
55	1	Error Handling during I/O Operations	T1	Lecture Mode
56	1	Programs based on Pointers	T1	Lecture Mode
57	1	Programs based on Files	T1	Lecture Mode
58	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
59	1	ICT CLASS		

60	1	TEST		

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LESSON PLAN

PROGRAMME:II M.SC CS	**SEMESTER/ YEAR: III SEM**
COURSE: ADVANCED DATABASE SYSTEM	**COURSE CODE: ECSJC31**
FACULTY 'S NAME: Mrs.CH.KALPANA	**TOTAL HOURS: 75**

SYLLABUS

Objectives:

1. To learn about Emerging database technologies..
2. To learn about importance Multimedia Database Applications and Spatial Databases

COURSE OUTCOME:

CO1: To know about importance of database system and architecture
CO2: About decision making
CO3: To learn about importance of Data warehouses and Data marts..
CO4: About object oriented Data Models, Object oriented Databases
CO5: To know about Emerging database technologies.

CS 31: ADVANCED DATABASE SYSTEM

(5 Hours – 4 Credits)

Unit I :

Database System: Introduction-Overview of Database Management Systems- Data Independence-Database System Architecture- The External Level – The Conceptual Level – The Internal Level – Mappings – The

Database Administrator – Data Dictionary – Data Models – Record-Based Data Models – Object based Data Models – Physical Data Models- Hierarchical Data Models – Network Data Models-Relational Data Model-Entity-Relationship Models – Object Oriented Data Model.

Unit II :

Distributed Databases and Decision Support: Preliminaries-The Objectives and problems of Distributed Databases - Client/Server Systems – DBMS Independence-SQL Facilities – Decision Support-Data Preparation-Data Warehouses and Data Marts – Online Analytical Processing – Object Oriented Databases: Introduction-Object Oriented Data Models-Object Oriented Database-Object Oriented DBMS – Object Oriented Languages.

Unit III :

Temporal Databases: Introduction-Intervals-Packing and Unpacking relations- Generalizing the relational operators – Database Design – Integrity Constraints – Multimedia Databases: Multimedia Sources – Multimedia Database Queries – Multimedia Database Applications.

Unit IV :

Spatial Databases: Spatial Data- Spatial Database Characteristics – Spatial Data Model- Spatial Database Queries – Techniques of Special Database Query- Logic based Databases: Introduction-Overview-Proportional calculus – Predicate Calculus – Deductive Database Systems – Recursive Query Processing.

Unit V :

Emerging Database Technologies: Introduction – Internet Databases – Multimedia Databases – Mobile Databases – MySQL **:** Introduction – An Overview of MySQL – MySQL Database.

Text Book:

An Introduction to Database Systems - C.J.Date, A.Kannan, S.Swamynathan -8th Edition-Pearson Education-2006.

Reference Books:

1. Database Systems: Concepts, Design and Applications -S.K. Singh-2nd Edition, Pearson Education- 2008.
2. Database Management System Concepts - Abraham Silberschatz, Hentry F.Korth and S.Sudarshan-McGraw Hill International Edition-2006.
3. Fundamentals of Database Systems - R. Elmasri, S.B. Navathe- Fifth Edition, Pearson Education- 2006.

COURSE PLAN- 1st SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
		UNIT-1		
1	1	Database System**:** Introduction Overview of Database Management Systems	T1	Online- **PPT**
2	1	Data Independence-Database System Architecture	T1	Online- **PPT**
3	1	The External Level – The Conceptual Level The Internal Level	T1	Online- **PPT**
4	1	Mappings	T1	Online- **PPT**
5	1	The Database Administrator	T1	Online-**PPT**
6	1	Data Dictionary	T1	Online-**PPT**
7	1	Data Models- Physical Data Models- Hierarchical Data Models	T1	Online-**PPT**
8	1	Network Data Models-Relational	T1	Online-**PPT**
9	1	Relational Data Model-Entity-Relationship Models	T1	Online-**PPT**
10	1	Object based Data Models	T1	Online-**PPT**

11	1	**Assignment Based on 1 st Unit**		
12	1	MOCK TEST-Quiz		
13	1	**SEMINAR**		Off Line-**Blackboard**
14	1	**SEMINAR**	T1	Online-**PPT**
15	1	UNIVERSITY QUESTIONS & ASSIGNMENT		
16	1	ICT CLASS		
17	1	TEST		
UNIT-2				
18	1	Distributed Databases and Decision Support: Preliminaries-	T1	Online-**PPT**
19	1	The Objectives and problems of Distributed Databases	T1	Online-**PPT**
20	1	Client/Server Systems	T1	Online-**PPT**
21	1	DBMS Independence-SQL Facilities	T1	Online-**PPT**
22	1	Decision Support	T1	Online-**PPT**
23	1	Data Preparation	T1	Online-**PPT**
24	1	Data Warehouses and Data Marts	T1	Online-**PPT**
25	1	Online Analytical Processing	T1	Online-**PPT**
26	1	Object Oriented Databases: Introduction	T1	Online-**PPT**
27	1	Object Oriented Data Models	T1	Online-**PPT**
28	1	Object Oriented Database	T1	Online-**PPT**
29	1	Object Oriented DBMS	T1	Online-**PPT**
30	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
31	1	ICT CLASS		
32	1	TEST		

		UNIT-3		
33	1	Temporal Databases: Introduction	T1	Off Line-**Blackboard**
34	1	Intervals-Packing and Unpacking relations	T1	Off Line-**Blackboard**
35	1	Generalizing the relational operators	T1	Off Line-**Blackboard**
36	1	Database Design	T1	Off Line-**Blackboard**
37	1	Integrity Constraints	T1	Off Line-**Blackboard**
38	1	Multimedia Databases,	T1	Off Line-**Blackboard**
39	1	Multimedia Sources	T1	Off Line-**Blackboard**
40	1	Multimedia Database Queries	T1	Off Line-**Blackboard**
41	1	Multimedia Database Applications	T1	Off Line-**Blackboard**
42	1	Examples of Multimedia Database Queries	T1	Off Line-**Blackboard**
43	1	Temporal Databases: Introduction	T1	Off Line-**Blackboard**
44	1	Multimedia Query processing	T1	Off Line-**Blackboard**
45	1	SEMINAR	T1	Off Line-**Blackboard**
46	1	SEMINAR	T1	Off Line-**Blackboard**
47	I	MOCK TEST	T1	Off Line-**Blackboard**
48	1	**Assignment Based on 3 rd Unit**	T1	Off Line-**Blackboard**
49	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
50	1	ICT CLASS		
51	1	TEST		
		UNIT-4		
52	1	Spatial Databases: Spatial Data	T1	Off Line-**Blackboard**
53	1	Spatial Database Characteristics	T1	Off Line **Blackboard**

54	1	Spatial Data Model	T1	Off Line **Blackboard**
55	1	Spatial Database Queries	T1	Off Line **Blackboard**
56	1	Techniques of Special Database Query	T1	Off Line-**Blackboard**
57	1	Logic based Databases: Introduction	T1	Off Line-**Blackboard**
58	1	Overview-Proportional calculus	T1	Off Line-**Blackboard**
59	1	Predicate Calculus	T1	Off Line-**Blackboard**
60	1	Deductive Database Systems	T1	Off Line-**Blackboard**
61	1	Recursive Query Processing	T1	Off Line-**Blackboard**
62	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
63	1	ICT CLASS		
64	1	TEST		
UNIT-5				
65	I	Emerging Database Technologies**:** Introduction	T1	Off Line-**Blackboard**
66	1	Internet Databases	T1	Off Line-**Blackboard**
67	1	Multimedia Databases	T1	Off Line-**Blackboard**
68	1	Mobile Databases	T1	Off Line-**Blackboard**
69	1	MySQL **:** Introduction	T1	Off Line-**Blackboard**
70	1	An Overview of MySQL	T1	Off Line **Blackboard**
71	1	MySQL Database.	T1	Off Line **Blackboard**
72	1	Emerging Database Technologies**:** Introduction	T1	Off Line **Blackboard**
73	1	Internet Databases	T1	Off Line **Blackboard**
74	1	**Test Important one mark MCQ (All Units)**		
75	1	TEST		

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LESSON PLAN

PROGRAMME:II B.SC MATHS	**SEMESTER/ YEAR: III SEM**
COURSE: Programming in C	**COURSE CODE: SMTJA32**
FACULTY 'S NAME:	**TOTAL HOURS: 75**

SYLLABUS

Objectives:

1. To learn a computer language.
2. To write programs and run programs

COURSE OUTCOME:

CO1: Understanding a functional hierarchical code organization
CO2: Ability to work with textual information, characters and strings.
CO3: Ability to work with arrays of complex objects.
CO4: Ability to define and manage data structures based on problem subject domain

CS1: Programming in C (6 Hours - 4 credits)

UNIT I Introduction - Importance of C - Programming style-character set - C Tokens-keywords and identifiers – Constants – Variables - Data types - Declaration of variables - Declaration of storage class-assigning values to variables-defining symbolic constants.

UNIT II Operators and expressions-arithmetic, relational, logical, assignment, increment and decrement, bitwise, conditional, special operators-arithmetic expressions-evaluation of expressions-precedence of arithmetic expressions.

UNIT III Managing input and output operations-reading a character-writing a character-formatted input-formatted output-decision making with if - simple if, if else, nesting of if else, else if, switch, goto, while do while, for statements-jumps in loops.

UNIT IV Arrays-one dimensional arrays-declaration of one dimensional arrays-initialization of one dimensional arrays-two dimensional arrays initializing two dimensional arrays-multi dimensional arrays-dynamic arrays

. **UNIT V** Structure definition-declaring structure variables-accessing structure members- structure initialization-pointer expressions-pointer increment and scale factor- pointer and arrays-array of pointers-pointers as function arguments-functions returning pointer- pointers to functions.

Text Book:

E. Balagurusamy, Programming in ANSI C, Tata McGraw-Hill Publishing Company Limited, New Delhi, 2008.

Reference Books:

1. Byron S. Gottfried, Schaum's Outline of Programming with C, 2nd Edition.
2. Darrel L. Graham, C Programming Language, Createspace Independent Publishing Company, 2016.

COURSE PLAN- 1st SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
UNIT-1				
1	1	Introduction of C	T1	Online-**PDF**
2	1	Importance of C	T1	Online-**PDF**
3	1	Programming style	T1	Online-**PDF**
4	1	character set	T1	Online-**PDF**
5	1	C Tokens	T1	Online-**PDF**
6	1	Basic C Program Introduction-lab	T1	Lab
7	1	keywords and identifiers	T1	Off Line-**Blackboard**
8	1	Constants	T1	Off Line-**Blackboard**

9	1	Variables	T1	Off Line-**Blackboard**
10	1	Data types	T1	Off Line-**Blackboard**
11	1	Declaration of variables	T1	Off Line-**Blackboard**
12	1	Declaration of storage class	T1	Off Line-**Blackboard**
13	1	assigning values to variables	T1	Off Line-**Blackboard**
14	1	defining symbolic constants	T1	Off Line-**Blackboard**
15	1	UNIVERSITY QUESTIONS & ASSIGNMENT		
16	1	ICT CLASS		
17	1	TEST		
UNIT-2				
18	1	Operators and expressions	T1	Off Line-**Blackboard**
19	1	Formatted Input, Formatted Output	T1	Off Line-**Blackboard**
20	1	arithmetic, relational,	T1	Off Line-**Blackboard**
21	1	C programs -lab	T1	Lab
22	1	logical, assignment Operators	T1	Off Line-**Blackboard**
23	1	increment and decrement, Operators	T1	Off Line-**Blackboard**
24	1	Bitwise Operators	T1	Off Line-**Blackboard**
25	1	Conditional Operators	T1	Off Line-**Blackboard**
26	1	special operators	T1	Off Line-**Blackboard**
27	1	arithmetic expressions	T1	Off Line-**Blackboard**
28	1	evaluation of expressions	T1	Off Line-**Blackboard**
29	1	precedence of arithmetic expressions	T1	Off Line-**Blackboard**
30	1	UNIVERSITY QUESTIONS &ASSIGNMENT		

31	1	ICT CLASS		
32	1	TEST		
UNIT-3				
33	1	Managing input and output operations	T1	Off Line-**Blackboard**
34	1	reading a character	T1	Off Line-**Blackboard**
35	1	writing a character	T1	Off Line-**Blackboard**
36	1	formatted input	T1	Off Line-**Blackboard**
37	1	formatted output	T1	Off Line-**Blackboard**
38	1	decision making with if	T1	Off Line-**Blackboard**
39	1	simple if	T1	Off Line-**Blackboard**
40	1	if else	T1	Off Line-**Blackboard**
41	1	nesting of if else	T1	Off Line-**Blackboard**
42	1	else if	T1	Off Line-**Blackboard**
43	1	switch	T1	Off Line-**Blackboard**
44	1	goto	T1	Off Line-**Blackboard**
45	1	while do while	T1	Off Line-**Blackboard**
46	1	for statements	T1	Off Line-**Blackboard**
47	1	C programs -lab	T1	Lab
48	1	Jumps in loops.	T1	Off Line-**Blackboard**
49	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
50	1	ICT CLASS		
51	1	TEST		
UNIT-4				
52	1	Arrays Introduction	T1	Off Line-**Blackboard**

53	1	C programs -lab	T1	Lab
54	1	C programs -lab	T1	Lab
55	1	C programs -lab	T1	Lab
56	1	One dimensional arrays	T1	Off Line-**Blackboard**
57	1	declaration of one dimensional arrays	T1	Off Line-**Blackboard**
58	1	Initialization of one dimensional arrays	T1	Off Line-**Blackboard**
59	1	Initializing two dimensional arrays	T1	Off Line-**Blackboard**
60	1	Multi dimensional arrays	T1	Off Line-**Blackboard**
61	1	Dynamic arrays	T1	Off Line-**Blackboard**
62	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
63	1	ICT CLASS		
64	1	TEST		
UNIT-5				
65	1	Structure definition-	T1	Off Line-**Blackboard**
66	1	declaring structure variables	T1	Off Line-**Blackboard**
67	1	accessing structure members-	T1	Off Line-**Blackboard**
68	1	structure initialization	T1	Off Line-**Blackboard**
69	1	pointer expressions	T1	Off Line-**Blackboard**
70	1	pointer increment and scale factor	T1	Online
71	1	pointer and arrays, array of pointers	T1	Online
72	1	pointers as function arguments	T1	Online
73	1	functions returning pointer-pointers to functions		
74	1	UNIVERSITY QUESTIONS & ASSIGNMENT		

75	1	TEST		
Sign of HOD			Sign of Faculty	
Sign of Dean Academics				

Mangayarkarasi College of Arts & Science for Women, Paravai.
(Affiliated to Madurai Kamaraj University)
ISO 9001:2015 Certified Institution, Re- Accredited by NAAC with 'B' grade

LESSON PLAN

PROGRAMME : B.SC(CS) A & B / BCA	**SEMESTER/ YEAR: 1st Semester**
COURSE: VALUE EDUCATION	**COURSE CODE : UVEJV11**
FACULTY'S NAME:	**TOTAL HOURS: 30**

Objective:

To impart citizenship values among the student .To make them awareness of civil rights. To familiarities the students with basic features of Indian constitution

COURSE OUTCOME:

CO1: Students will understand the importance of value based living

CO2: Students will gain deeper understanding about the purpose of their life

CO3: Students will understand and start applying the essential steps to become good leaders

CO4: Students will become value based professionals

CO5: To develop good moral values in the children

SYLLABUS

VALUE EDUCATION

(2 Hours – 2 Credits)

Unit I

Values and Individual

Values meaning – the significance of values – classification of values – needs of value education – values and the individual – self-discipline, self-confidence, self-initiative, empathy, compassion, forgiveness, honesty and courage.

Unit II

Values of Religion and Society

Karma yoga in Hinduism – love and justice in Christianity – brotherhood in Islam, compassion in Buddhism – ahimsa in Jainism and courage in Sikhism – need for religious harmony- Definition of society – democracy – secularism –socialism –gender justice – human rights – socio political awareness – social integration – social justice.

Unit III

Professional values &Role of social institutions in value formation

Definition – accountability –willingness to learn – team sprit- competence development – honesty – transparency – respecting others – democratic functioning –integrity and commitment. Role of family – peer group – society – educational institutions – role models and mass media in value formation.

Unit IV

Constitutional Values and Fundamental Rights Constitutional Values

Sovereignty – Socialism - Secularism – Democracy – Republic – Justice – Liberty – Equality – Fraternity - Dignity of the individual - Unity and integrity of the Nation - International peace and a just international order. **Fundamental rights:** Right to equality - Right to freedom - Right against exploitation - Right to freedom of religion - Cultural and educational rights - Right to constitutional remedies.

Unit V

Directive Principles of State Policy and Fundamental Duties Directive Principles of State Policy

Meaning and Classification – Policies relating to economic and social Principles –Policies relating Gandhian Principles - Policies Relating to International Peace and Security – Policies relating to Universalisation of Education, Child Labour and Status of Women

Fundamental Duties

Abiding and respecting the Constitution, its ideals and institutions - cherishing and following the noble ideals that inspired our national struggle for freedom – upholding and protecting the sovereignty, unity and integrity of India - defending the country – promoting the harmony and the spirit of common brotherhood and dignity of women - valuing and preserving the heritage of our composite culture - protecting and improving the natural environments - developing the scientific temper, humanism and the spirit of inquiry - safeguarding public property - serving towards excellence in all spheres of individual and collective activity - providing opportunities for education.

Reference Books:

1. M.G.Chitakra: Education and Human Values, A.P.H.Publishing Corporation, New Delhi, 2003
2. Chakravarthy, S.K.: Values and ethics for Organizations: Theory and Practice, Oxford University Press, NewDelhi , 1999.
3. Satchidananda, M.K.: Ethics, Education, Indian Unity and Culture, Ajantha Publications, Delhi, 1991
4. Das, M.S. & Gupta, V.K. : Social Values among Young adults: A changing Scenario, M.D. Publications, New Delhi, 1995
5. Bandiste, D.D.: Humanist Values: A Source Book, B.R. Publishing Corporation, Delhi, 1999
6. Ruhela, S.P. : Human Values and education, Sterling Publications, New Delhi, 1986
7. Kaul, G.N.: Values and Education in Independent Indian, Associated Publishers, Mumbai, 1975
8. NCERT, Education in Values, New Delhi, 1992 Swami Budhananda (1983) How to Build Character A
9. Primer : Ramakrishna Mission, New Delhi

COURSE PLAN- 1st SEMESTER

S No	HOURS	TOPIC	BOOK	TEACHING MODE
		UNIT-1		
1	1	Values meaning, The significance of values, classification of values	T1	Online-PPT
2	1	Needs of value education, Values and the individual, Self-discipline, self-confidence and self-initiative,	T1	Online-PPT
3	1	Empathy, compassion, Forgiveness, honesty and courage	T1	Online-PPT
4	1	ASSIGNMENT/ TEST	T1	Online-PPT
		UNIT-2		
5	1	Karma yoga in Hinduism, Love and justice in Christianity, Brotherhood in Islam	T1	Online-PPT
6	1	Compassion in Buddhism, Ahimsa in Jainism and courage in Sikhism, Need for religious harmony	T1	Online-PPT
7	1	Definition of society, Democracy, Secularism, Socialism	T1	Online-PPT
8	1	Gender justice, Human rights, Socio political awareness, Social integration	T1	Online-PPT
9	1	ICT CLASS&ASSIGNMENT	T1	Online-PPT
		UNIT-3		
10	1	Definition of accountability, willingness to learn, Team sprit	T1	Off Line-Blackboard
11	1	Competence development, Honesty and transparency, Respecting others	T1	Off Line-Blackboard
12	1	Democratic functioning, Integrity and commitment, Role of family, Peer group and society	T1	Off Line-Blackboard
13	1	Educational institutions, Role models and mass media in value formation	T1	Off Line-Blackboard

14	1	ICT CLASS&ASSIGNMENT	T1	Off Line-Blackboard
UNIT-4				
15	1	Sovereignty, Socialism and Secularism	T1	Off Line-Blackboard
16	1	Democracy,Republic ,Justice ,Liberty , Equality and Fraternity	T1	Off Line-Blackboard
17	1	Dignity of the individual	T1	Off Line-Blackboard
18	1	Unity and integrity of the Nation	T1	Off Line-Blackboard
19	1	International peace and a just international order.	T1	Off Line-Blackboard
20	1	Fundamental rights	T1	Off Line-Blackboard
21	1	University Questions &Assignment		
22	1	Ict Class		
23	1	Test		
UNIT-5				
24	1	Meaning and Classification	T1	Off Line-Blackboard
25	1	Policies relating to economic and social Principles	T1	Off Line-Blackboard
26	1	Policies relating Gandhian Principles	T1	Off Line-Blackboard
27	1	Policies Relating to International Peace and Security	T1	Off Line-Blackboard
28	1	Policies relating to Universalisation of Education, Child Labour and Status of Women	T1	Off Line-Blackboard
29	1	Fundamental Duties	T1	Off Line-Blackboard
30	1	Test & Assignment		Off Line-Blackboard

Sign of HOD	Sign of Faculty
Sign of Dean Academics	

LESSON PLAN

PROGRAMME:I BCA	SEMESTER/ YEAR: I SEM
COURSE: Programming in C	COURSE CODE:SCAJC11
FACULTY 'S NAME:Dr.P.Pandi selvi	TOTAL HOURS: 60

SYLLABUS

Objectives:

1. Programming in ANSI C strengthens the knowledge of the students about C Programming and motivates the students to learn programming languages enthusiastically.
2. It helps the students to write programs on their own.

COURSE OUTCOME:

CO1: Understanding a functional hierarchical code organization

CO2: Ability to work with textual information, characters and strings.

CO3: Ability to work with arrays of complex objects.

CO4: Ability to define and manage data structures based on problem subject domain

CO5: Ability to develop and Managing Files.

CS1: Programming in C (4 Hours - 4 credits)

Unit I:

Overview of C: History of C – Importance of C – Basic Structure of C Programs – Programming Style – Character Set – C Tokens – Keywords and Identifiers – Constants, Variables and Data Types – Declaration of Variables – Defining Symbolic Constants – Declaring a variable as a constant – overflow and underflow of data – Operators and Expressions: Arithmetic, relational, logical, assignment operators – increment and decrement operators, conditional operators, bitwise operators, special operators – Arithmetic Expressions- Evaluation of Expressions – Precedence of Arithmetic Operators – Type Conversions in Expressions – Operator Precedence and Associativity

Unit II:

Managing I/O Operations: Reading and Writing a Character – Formatted Input, Output – Decision Making & Branching: if statement - if else statement - nesting of if else statements - else if ladder – switch statement – the ?: operator – goto statement – the while statement – do statement – the for statement – jumps in loops.

Unit III:

Arrays: One-Dimensional Arrays – Declaration, Initialization – Two-Dimensional Arrays – Multi-dimensional Arrays – Dynamic Arrays – Initialization. Strings: Declaration, Initialization of string variables – reading and writing strings – string handling functions.

Unit IV:

User-defined functions: Need – multi-function programs – elements of user defined functions – definition – return values and their types – function calls, declaration, category – all types of arguments and return values – nesting of functions – recursion – passing arrays, strings to functions – scope visibility and life time of variables. Structures and Unions: Defining a structure – declaring a structure variable – accessing structure members – initialization – copying and comparing – operation on individual members – array of structures – arrays within structures – structures within structures – structures and functions – unions – size of structures – bit fields.

Unit V:

Pointers : Accessing the address of a variable – declaring, initialization of pointer variables – accessing a variable through its pointer – chain of pointers – pointer increments and scale factors – pointers and character strings – pointers as function arguments – pointers and structures. Files: Defining, opening, closing a file – IO Operations on files – Error handling during IO operations – command line arguments.

Text Book:

1.Programming in ANSI C, E.Balagurusamy, 7th Edition, Tata McGraw Hill Publishing Company, 2017.

Unit I : Chapters 1 (Except 1.3-1.7, 1.10-1.12), 2 (Except 2.9, 2.13), 3 (Except 3.13)

Unit II : Chapters 4 – 6

Unit III : Chapters 7, 8 (Except 8.5, 8.6, 8.7, 8.9, 8.10)

Unit IV : Chapters 9 (Except 9.20), 10

Unit V : Chapters 11 (Except 11.8, 11.10, 11.12, 11.14, 11.15, 11.17), 12 (Except 12.6)

Reference Books:

1. B. Gottfried, "Schaum's Outline of Programming with C", 3rd Edition, Tata McGraw Hill,2010.

2. J.R. Hanly and E.B. Koffman, "Problem Solving and Program Design in C", 6th Edition, Pearson Education, 2009.
3. Programming with ANSI and Turbo C , Ashok N.Kamthane , Pearson Education, 2006
4. H. Schildt, C: The Complete Reference, 4th Edition, TMH Edition, 2000.
5. Kanetkar Y., Let us C, BPB Pub., New Delhi, 1999.

COURSE PLAN- 1st SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
		UNIT-1		
1	1	History of C	T1	Online-**PDF**
2	1	Basic Structure of C Program	T1	Online-**PDF**
3	1	Character Set, Tokens	T1	Online-**PDF**
4	1	Data types, Defining Symbolic Constant	T1	Online-**PDF**
5	1	Arithmetic Operators, Relational Operators	T1	Off Line-**Blackboard**
6	1	Assignment Operator, Logical Operator	T1	Off Line-**Blackboard**
7	1	Increment, Decrement, Conditional Operator	T1	Off Line-**Blackboard**
8	1	Bitwise & Special Operators, Arithmetic Expressions	T1	Off Line-**Blackboard**
9	1	Programs based on Operators	T1	Off Line-**Blackboard**
10	1	UNIVERSITY QUESTIONS & ASSIGNMENT		
11	1	ICT CLASS		
12	1	TEST		
13	1	Reading a Character, Writing a Character	T1	Off Line-**Blackboard**
14	1	Formatted Input, Formatted Output	T1	Off Line-**Blackboard**
15	1	Decision making with if Statement	T1	Off Line-**Blackboard**
16	1	If else, Nesting of if else	T1	Off Line-**Blackboard**

17	1	Else if ladder, Switch statement	T1	Off Line-**Blackboard**
18	1	Conditional and go to statement	T1	Off Line-**Blackboard**
19	1	While loop, Do statement	T1	Off Line-**Blackboard**
20	1	For Statement & jump statements	T1	Off Line-**Blackboard**
21	1	Programs based on Formatted I/O Operations, Branching & Looping statement	T1	Off Line-**Blackboard**
22	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
23	1	ICT CLASS		
24	1	TEST		
25	1	Introduction of an Array, One dimensional Array	T1	Off Line-**Blackboard**
26	1	Two dimensional Array	T1	Off Line-**Blackboard**
27	1	Multi dimensional & Dynamic Array	T1	Off Line-**Blackboard**
28	1	Declaring and Initializing String Variables	T1	Off Line-**Blackboard**
29	1	Writing Strings to Screen	T1	Off Line-**Blackboard**
30	1	Arithmetic Operations on Characters	T1	Off Line-**Blackboard**
31	1	Comparison of Two Strings	T1	Off Line-**Blackboard**
32	1	String Handling Functions, Table of Strings	T1	Off Line-**Blackboard**
33	1	Programs based on One & Two dimensional Array, String Handling Functions	T1	Off Line-**Blackboard**
34	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
35	1	ICT CLASS		
36	1	TEST		

37	1	Need for User Defined of Function, Elements of User Defined of Function	T1	Off Line-**Blackboard**
38	1	Definition of Function	T1	Off Line-**Blackboard**
39	1	Function call, Function Declaration	T1	Off Line-**Blackboard**
40	1	Categories of Functions	T1	Off Line-**Blackboard**
41	1	Nesting of Functions, Recursion	T1	Off Line-**Blackboard**
42	1	Defining a Structure	T1	Off Line-**Blackboard**
43	1	Structure Initialization	T1	Off Line-**Blackboard**
44	1	Array of Structure, Unions	T1	Off Line-**Blackboard**
45	1	Programs based on Function, Structure & Union	T1	Off Line-**Blackboard**
46	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
47	1	ICT CLASS		
48	1	TEST		
UNIT-5				
49	1	Understanding Pointers	T1	Off Line-**Blackboard**
50	1	Declaring Pointer Variables	T1	Off Line-**Blackboard**
51	1	Chain of Pointers, Pointers and arrays	T1	Off Line-**Blackboard**
52	1	Array of Pointers	T1	Off Line-**Blackboard**
53	1	Functions Returning Pointers	T1	Off Line-**Blackboard**
54	1	Defining and Opening a File, I/O Operations on File	T1	Online
55	1	Error Handling during I/O Operations	T1	Online
56	1	Programs based on Pointers	T1	Online
57	1	Programs based on Files	T1	Online
58	1	UNIVERSITY QUESTIONS &ASSIGNMENT		

59	1	ICT CLASS		
60	1	TEST		

Sign of HOD	Sign of Faculty
Sign of Dean Academics	

LESSON PLAN

PROGRAMME:I BCA	**SEMESTER/ YEAR: I SEM**
COURSE: Programming in C	**COURSE CODE:SCAJC11**
FACULTY 'S NAME:Dr.P.Pandi selvi	**TOTAL HOURS: 60**

SYLLABUS

Objectives:

1. Programming in ANSI C strengthens the knowledge of the students about C Programming and motivates the students to learn programming languages enthusiastically.
2. It helps the students to write programs on their own.

COURSE OUTCOME:

CO1: Understanding a functional hierarchical code organization

CO2: Ability to work with textual information, characters and strings.

CO3: Ability to work with arrays of complex objects.

CO4: Ability to define and manage data structures based on problem subject domain

CO5: Ability to develop and Managing Files.

CS1: Programming in C (4 Hours - 4 credits)

Unit I:

Overview of C: History of C – Importance of C – Basic Structure of C Programs – Programming Style – Character Set – C Tokens – Keywords and Identifiers – Constants, Variables and Data Types – Declaration of Variables – Defining Symbolic Constants – Declaring a variable as a constant – overflow and underflow of data – Operators and Expressions: Arithmetic, relational, logical, assignment operators – increment and decrement operators, conditional operators, bitwise operators, special operators – Arithmetic Expressions- Evaluation of Expressions – Precedence of Arithmetic Operators – Type Conversions in Expressions – Operator Precedence and Associativity

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Unit III:

Arrays: One-Dimensional Arrays – Declaration, Initialization – Two-Dimensional Arrays – Multi-dimensional Arrays – Dynamic Arrays – Initialization. Strings: Declaration, Initialization of string variables – reading and writing strings – string handling functions.

Unit IV:

User-defined functions: Need – multi-function programs – elements of user defined functions – definition – return values and their types – function calls, declaration, category – all types of arguments and return values – nesting of functions – recursion – passing arrays, strings to functions – scope visibility and life time of variables. Structures and Unions: Defining a structure – declaring a structure variable – accessing structure members – initialization – copying and comparing – operation on individual members – array of structures – arrays within structures – structures within structures – structures and functions – unions – size of structures – bit fields.

Unit V:

Pointers : Accessing the address of a variable – declaring, initialization of pointer variables – accessing a variable through its pointer – chain of pointers – pointer increments and scale factors – pointers and character strings – pointers as function arguments – pointers and structures. Files: Defining, opening, closing a file – IO Operations on files – Error handling during IO operations – command line arguments.

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Unit II : Chapters 4 – 6
Unit III : Chapters 7, 8 (Except 8.5, 8.6, 8.7, 8.9, 8.10)
Unit IV : Chapters 9 (Except 9.20), 10
Unit V : Chapters 11 (Except 11.8, 11.10, 11.12, 11.14, 11.15, 11.17), 12 (Except 12.6)

Reference Books:

1. B. Gottfried, "Schaum's Outline of Programming with C", 3rd Edition, Tata McGraw Hill,2010.
2. J.R. Hanly and E.B. Koffman, "Problem Solving and Program Design in C", 6th Edition, Pearson Education, 2009.
3. Programming with ANSI and Turbo C , Ashok N.Kamthane , Pearson Education, 2006
4. H. Schildt, C: The Complete Reference, 4th Edition, TMH Edition, 2000.
5. Kanetkar Y., Let us C, BPB Pub., New Delhi, 1999.

COURSE PLAN- 1st SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
UNIT-1				
1	1	History of C	T1	Online-**PDF**
2	1	Basic Structure of C Program	T1	Online-**PDF**
3	1	Character Set, Tokens	T1	Online-**PDF**
4	1	Data types, Defining Symbolic Constant	T1	Online-**PDF**
5	1	Arithmetic Operators, Relational Operators	T1	Off Line-**Blackboard**

6	1	Assignment Operator, Logical Operator	T1	Off Line-**Blackboard**
7	1	Increment, Decrement, Conditional Operator	T1	Off Line-**Blackboard**
8	1	Bitwise & Special Operators, Arithmetic Expressions	T1	Off Line-**Blackboard**
9	1	Programs based on Operators	T1	Off Line-**Blackboard**
10	1	UNIVERSITY QUESTIONS & ASSIGNMENT		
11	1	ICT CLASS		
12	1	TEST		
13	1	Reading a Character, Writing a Character	T1	Off Line-**Blackboard**
14	1	Formatted Input, Formatted Output	T1	Off Line-**Blackboard**
15	1	Decision making with if Statement	T1	Off Line-**Blackboard**
16	1	If else, Nesting of if else	T1	Off Line-**Blackboard**
17	1	Else if ladder, Switch statement	T1	Off Line-**Blackboard**
18	1	Conditional and go to statement	T1	Off Line-**Blackboard**
19	1	While loop, Do statement	T1	Off Line-**Blackboard**
20	1	For Statement & jump statements	T1	Off Line-**Blackboard**
21	1	Programs based on Formatted I/O Operations, Branching & Looping statement	T1	Off Line-**Blackboard**
22	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
23	1	ICT CLASS		
24	1	TEST		
25	1	Introduction of an Array, One dimensional Array	T1	Off Line-**Blackboard**
26	1	Two dimensional Array	T1	Off Line-**Blackboard**

27	1	Multi dimensional & Dynamic Array	T1	Off Line-**Blackboard**
28	1	Declaring and Initializing String Variables	T1	Off Line-**Blackboard**
29	1	Writing Strings to Screen	T1	Off Line-**Blackboard**
30	1	Arithmetic Operations on Characters	T1	Off Line-**Blackboard**
31	1	Comparison of Two Strings	T1	Off Line-**Blackboard**
32	1	String Handling Functions, Table of Strings	T1	Off Line-**Blackboard**
33	1	Programs based on One & Two dimensional Array, String Handling Functions	T1	Off Line-**Blackboard**
34	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
35	1	ICT CLASS		
36	1	TEST		
37	1	Need for User Defined of Function, Elements of User Defined of Function	T1	Off Line-**Blackboard**
38	1	Definition of Function	T1	Off Line-**Blackboard**
39	1	Function call, Function Declaration	T1	Off Line-**Blackboard**
40	1	Categories of Functions	T1	Off Line-**Blackboard**
41	1	Nesting of Functions, Recursion	T1	Off Line-**Blackboard**
42	1	Defining a Structure	T1	Off Line-**Blackboard**
43	1	Structure Initialization	T1	Off Line-**Blackboard**
44	1	Array of Structure, Unions	T1	Off Line-**Blackboard**
45	1	Programs based on Function, Structure & Union	T1	Off Line-**Blackboard**
46	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
47	1	ICT CLASS		

48	1	TEST		
UNIT-5				
49	1	Understanding Pointers	T1	Off Line-**Blackboard**
50	1	Declaring Pointer Variables	T1	Off Line-**Blackboard**
51	1	Chain of Pointers, Pointers and arrays	T1	Off Line-**Blackboard**
52	1	Array of Pointers	T1	Off Line-**Blackboard**
53	1	Functions Returning Pointers	T1	Off Line-**Blackboard**
54	1	Defining and Opening a File, I/O Operations on File	T1	Online
55	1	Error Handling during I/O Operations	T1	Online
56	1	Programs based on Pointers	T1	Online
57	1	Programs based on Files	T1	Online
58	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
59	1	ICT CLASS		
60	1	TEST		

Sign of HOD	Sign of Faculty
Sign of Dean Academics	

LESSON PLAN

PROGRAMME:I BCA	**SEMESTER/ YEAR: I SEM**
COURSE: Programming in C	**COURSE CODE:SCAJC11**
FACULTY 'S NAME:Dr.P.Pandi selvi	**TOTAL HOURS: 60**

SYLLABUS

Objectives:

1. Programming in ANSI C strengthens the knowledge of the students about C Programming and motivates the students to learn programming languages enthusiastically.
2. It helps the students to write programs on their own.

COURSE OUTCOME:

CO1: Understanding a functional hierarchical code organization

CO2: Ability to work with textual information, characters and strings.

CO3: Ability to work with arrays of complex objects.

CO4: Ability to define and manage data structures based on problem subject domain

CO5: Ability to develop and Managing Files.

CS1: Programming in C (4 Hours - 4 credits)

Unit I:

Overview of C: History of C – Importance of C – Basic Structure of C Programs – Programming Style – Character Set – C Tokens – Keywords and Identifiers – Constants, Variables and Data Types – Declaration of Variables – Defining Symbolic Constants – Declaring a variable as a constant – overflow and underflow of data – Operators and Expressions: Arithmetic, relational, logical, assignment operators – increment and decrement operators, conditional operators, bitwise operators, special operators – Arithmetic Expressions- Evaluation of Expressions – Precedence of Arithmetic Operators – Type Conversions in Expressions – Operator Precedence and Associativity

Unit II:

Managing I/O Operations: Reading and Writing a Character – Formatted Input, Output – Decision Making & Branching: if statement - if else statement - nesting of if else statements - else if ladder – switch statement – the ?: operator – goto statement – the while statement – do statement – the for statement – jumps in loops.

Unit III:

Arrays: One-Dimensional Arrays – Declaration, Initialization – Two-Dimensional Arrays – Multi-dimensional Arrays – Dynamic Arrays – Initialization. Strings: Declaration, Initialization of string variables – reading and writing strings – string handling functions.

Unit IV:

User-defined functions: Need – multi-function programs – elements of user defined functions – definition – return values and their types – function calls, declaration, category – all types of arguments and return values – nesting of functions – recursion – passing arrays, strings to functions – scope visibility and life time of variables. Structures and Unions: Defining a structure – declaring a structure variable – accessing structure members – initialization – copying and comparing – operation on individual members – array of structures – arrays within structures – structures within structures – structures and functions – unions – size of structures – bit fields.

Unit V:

Pointers : Accessing the address of a variable – declaring, initialization of pointer variables – accessing a variable through its pointer – chain of pointers – pointer increments and scale factors – pointers and character strings – pointers as function arguments – pointers and structures. Files: Defining, opening, closing a file – IO Operations on files – Error handling during IO operations – command line arguments.

Text Book:

1.Programming in ANSI C, E.Balagurusamy, 7th Edition, Tata McGraw Hill Publishing Company, 2017.

Unit I : Chapters 1 (Except 1.3-1.7, 1.10-1.12), 2 (Except 2.9, 2.13), 3 (Except 3.13)

Unit II : Chapters 4 – 6

Unit III : Chapters 7, 8 (Except 8.5, 8.6, 8.7, 8.9, 8.10)

Unit IV : Chapters 9 (Except 9.20), 10

Unit V : Chapters 11 (Except 11.8, 11.10, 11.12, 11.14, 11.15, 11.17), 12 (Except 12.6)

Reference Books:

1. B. Gottfried, "Schaum's Outline of Programming with C", 3rd Edition, Tata McGraw Hill,2010.

2. J.R. Hanly and E.B. Koffman, "Problem Solving and Program Design in C", 6th Edition, Pearson Education, 2009.
3. Programming with ANSI and Turbo C , Ashok N.Kamthane , Pearson Education, 2006
4. H. Schildt, C: The Complete Reference, 4th Edition, TMH Edition, 2000.
5. Kanetkar Y., Let us C, BPB Pub., New Delhi, 1999.

COURSE PLAN- 1st SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
		UNIT-1		
1	1	History of C	T1	Online-**PDF**
2	1	Basic Structure of C Program	T1	Online-**PDF**
3	1	Character Set, Tokens	T1	Online-**PDF**
4	1	Data types, Defining Symbolic Constant	T1	Online-**PDF**
5	1	Arithmetic Operators, Relational Operators	T1	Off Line-**Blackboard**
6	1	Assignment Operator, Logical Operator	T1	Off Line-**Blackboard**
7	1	Increment, Decrement, Conditional Operator	T1	Off Line-**Blackboard**
8	1	Bitwise & Special Operators, Arithmetic Expressions	T1	Off Line-**Blackboard**
9	1	Programs based on Operators	T1	Off Line-**Blackboard**
10	1	UNIVERSITY QUESTIONS & ASSIGNMENT		
11	1	ICT CLASS		
12	1	TEST		
13	1	Reading a Character, Writing a Character	T1	Off Line-**Blackboard**
14	1	Formatted Input, Formatted Output	T1	Off Line-**Blackboard**
15	1	Decision making with if Statement	T1	Off Line-**Blackboard**
16	1	If else, Nesting of if else	T1	Off Line-**Blackboard**

17	1	Else if ladder, Switch statement	T1	Off Line-**Blackboard**
18	1	Conditional and go to statement	T1	Off Line-**Blackboard**
19	1	While loop, Do statement	T1	Off Line-**Blackboard**
20	1	For Statement & jump statements	T1	Off Line-**Blackboard**
21	1	Programs based on Formatted I/O Operations, Branching & Looping statement	T1	Off Line-**Blackboard**
22	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
23	1	ICT CLASS		
24	1	TEST		
25	1	Introduction of an Array, One dimensional Array	T1	Off Line-**Blackboard**
26	1	Two dimensional Array	T1	Off Line-**Blackboard**
27	1	Multi dimensional & Dynamic Array	T1	Off Line-**Blackboard**
28	1	Declaring and Initializing String Variables	T1	Off Line-**Blackboard**
29	1	Writing Strings to Screen	T1	Off Line-**Blackboard**
30	1	Arithmetic Operations on Characters	T1	Off Line-**Blackboard**
31	1	Comparison of Two Strings	T1	Off Line-**Blackboard**
32	1	String Handling Functions, Table of Strings	T1	Off Line-**Blackboard**
33	1	Programs based on One & Two dimensional Array, String Handling Functions	T1	Off Line-**Blackboard**
34	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
35	1	ICT CLASS		
36	1	TEST		

37	1	Need for User Defined of Function, Elements of User Defined of Function	T1	Off Line-**Blackboard**
38	1	Definition of Function	T1	Off Line-**Blackboard**
39	1	Function call, Function Declaration	T1	Off Line-**Blackboard**
40	1	Categories of Functions	T1	Off Line-**Blackboard**
41	1	Nesting of Functions, Recursion	T1	Off Line-**Blackboard**
42	1	Defining a Structure	T1	Off Line-**Blackboard**
43	1	Structure Initialization	T1	Off Line-**Blackboard**
44	1	Array of Structure, Unions	T1	Off Line-**Blackboard**
45	1	Programs based on Function, Structure & Union	T1	Off Line-**Blackboard**
46	1	UNIVERSITY QUESTIONS &ASSIGNMENT		
47	1	ICT CLASS		
48	1	TEST		
UNIT-5				
49	1	Understanding Pointers	T1	Off Line-**Blackboard**
50	1	Declaring Pointer Variables	T1	Off Line-**Blackboard**
51	1	Chain of Pointers, Pointers and arrays	T1	Off Line-**Blackboard**
52	1	Array of Pointers	T1	Off Line-**Blackboard**
53	1	Functions Returning Pointers	T1	Off Line-**Blackboard**
54	1	Defining and Opening a File, I/O Operations on File	T1	Online
55	1	Error Handling during I/O Operations	T1	Online
56	1	Programs based on Pointers	T1	Online
57	1	Programs based on Files	T1	Online
58	1	UNIVERSITY QUESTIONS &ASSIGNMENT		

59	1	ICT CLASS		
60	1	TEST		

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LESSON PLAN

PROGRAMME: III CS C	**SEMESTER/ YEAR: 2021-22**
COURSE: OPERATING SYSTEM	**COURSE CODE: SCSJC52**
FACULTY 'S NAME: Mrs.M.VIJI	**TOTAL HOURS : 75**

SYLLABUS

Objectives:

1. To provide a comprehensive and integrated coverage of Services Marketing in Indian business context.
2. To facilitate the learner the role of marketing mix in the Services Marketing context.

COURSE OUTCOME:

CO1: **Introduction to Operating Systems**
CO2: **Asynchronous Concurrent Execution**
CO3: **Deadlock and Indefinite Postponement**
CO4: **Real Memory Organization and Management**
CO5: **Disk Performance Optimization**

Unit I:

Introduction to Operating Systems: Introduction, What is an Operating systems, Operating system components and goals, Operating systems architecture. Process Concepts: Introduction, Process States, Process Management, Interrupts, Interprocess Communication.

Unit II:

Asynchronous Concurrent Execution: Introduction, Mutual Exclusion, Implementing Mutual Exclusion Primitives, Software solutions to the Mutual Exclusion Problem, Hardware solution to the Mutual Exclusion Problem, Semaphores. Concurrent Programming: Introduction, Monitors.

Unit III:

Deadlock and Indefinite Postponement: Introduction, Examples of Deadlock, Related Problem Indefinite Postponement, Resource concepts, Four Necessary conditions for Deadlock, Deadlock solution, Deadlock Prevention, Deadlock Avoidance with Dijkstra's Banker's algorithm, Deadlock Detection, Deadlock Recovery.
Processor Scheduling: Introduction, Scheduling levels, Preemptive Vs Non- Preemptive Scheduling Priorities, Scheduling objective, Scheduling criteria, Scheduling algorithms. **Unit IV:**
Real Memory Organization and Management: Introduction, Memory organization, Memory Management, Memory Hierarchy, Memory Management Strategies, Contiguous Vs Non-Contiguous Memory allocation, Fixed

Partition Multiprogrammimg, Variable Partition multiprogramming. **Virtual Memory Management:** Introduction, Page Replacement, Page Replacement Strategies, Page Fault Frequency (PFF) Page replacement, Page Release, Page Size.

Unit V:

Disk Performance Optimization: Introduction, Why Disk Scheduling is necessary, Disk Scheduling strategies, Rotational optimization. **File and Database Systems:** Introduction, Data Hierarchy, Files, File Systems, File Organization, File Allocation, Free Space Management, File Access control.

Text Book:

Operating Systems, Deitel & Deitel Choffnes, Pearson education, Third edition, 2008.
Unit I : Chapter 1: 1.1, 1.2, 1.12, 1.13 & Chapter 3: 3.1, 3.2, 3.3, 3.4, 3.5
Unit II : Chapter 5: 5.1, 5.2, 5.3, 5.4(up to 5.4.2), 5.5, 5.6 & Chapter 6: 6.1, 6.2
Unit III : Chapter 7: 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 7.10 Chapter 8: 8.1, 8.2, 8 3, 8.4, 8.5, 8.6, 8.7 Unit IV : Chapter 9: 9.1, 9 2, 9.3, 9 4, 9.5, 9.6, 9.8, 9.9 Chapter 11: 11.1, 11.5, 11.6, 11.8, 11.9, 11.10
Unit V : Chapter 12: 12.1, 12.4, 12.5, 12.6 Chapter 13: 13.1, 13 2, 13.3, 13.4, 13.5, 13.6, 13.7, 13.8

Reference Books:

1. An introduction to Operating systems concepts and Practice, Pramod Chandra P. Bhatt, PHI, Second Edition, 2008.

2. Operating System Concepts, Abraham Silberschatz Peter Galvin Greg Gagne, 6th edition Windows XP Update, Wiley India edition, 2007.

3. Operating Systems Principles and Design, Pal Choudhury, PHI Learning, 2011.

4. Operating Systems, A Concept Based Approach Dhananjay M.Dhamdhere Tata Mc Graw Hill, .

COURSE PLAN- 1st SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
	UNIT-1			
1	I	Introduction, What is an Operating systems	T1	Off Line
2	I	Operating system components and	T1	Off Line
3	I	goals, Operating systems architecture	T1	Off Line
4	I	Process Concepts: Introduction	T1	Off Line
5	I	Revision		Off Line
6	I	Class Test		Off Line
7	I	Process States,	T1	Off Line
8	I	Process Management	T1	Off Line
9	I	Interrupts,	T1	Off Line
10	I	Inter process Communication	T1	Off Line
11	I	Revision		Off Line
12	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		

		ICT CLASS		
		TEST		
	UNIT-2			
13	I	**Asynchronous Concurrent Execution:** Introduction, Mutual Exclusion	T1	Off Line
14	I	Implementing Mutual Exclusion Primitives	T1	Off Line
15	I	Software solutions to the Mutual Exclusion Problem	T1	Off Line
16	I	Hardware solution to the Mutual Exclusion Problem	T1	Off Line
17	I	Revision		Off Line
18	I	Class Test		Off Line
19	I	Semaphores.	T1	Off Line
20	I	Concurrent Programming	T1	Off Line
21	I	Introduction, Monitors	T1	Off Line
22	I	Revision		Off Line
23	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
	UNIT-3			
24	I	**Deadlock and Indefinite Postponement**	T1	Off Line
25	I	Introduction, Examples of Deadlock,	T1	Off Line
26	I	Related Problem Indefinite Postponement,	T1	Off Line
27	I	Resource concepts,	T1	Off Line
28	I	Four Necessary conditions for Deadlock	T1	Off Line
29	I	Deadlock solution,	T1	Off Line
30	I	Deadlock Prevention		Off Line
31	I	Deadlock Avoidance with Dijkstra's Banker's algorithm	T1	Off Line
32	I	Revision		Off Line
33	I	Class Test		Off Line
34	I	Deadlock Detection,	T1	Off Line
35	I	Deadlock Recovery	T1	Off Line
36	I	**Processor Scheduling**	T1	Off Line
37	I	Introduction, Scheduling levels	T1	Off Line
38	I	Preemptive Vs Non- Preemptive Scheduling Priorities	T1	Off Line
39	I	Scheduling objective, Scheduling criteria	T1	Off Line
40	I	Scheduling algorithms	T1	Off Line
41	I	Revision		Off Line

42	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
		UNIT-4		
43	I	**Real Memory Organization and Management**	T1	Off Line
44	I	Introduction, Memory organization,	T1	Off Line
45	I	Memory Management, Memory Hierarchy		Off Line
46	I	Memory Management Strategies,	T1	Off Line
47	I	Contiguous Vs Non-Contiguous Memory allocation		Off Line
48	I	Fixed Partition Multiprogrammimg,	T1	Off Line
49	I	Variable Partition multiprogramming.	T1	Off Line
50	I	Revision		Off Line
51	I	Class Test		Off Line
52	I	**Virtual Memory Management**		Off Line
53	I	Introduction, Page Replacement	T1	Off Line
54	I	, Page Replacement Strategies		Off Line
55	I	Page Fault Frequency (PFF)	T1	Off Line
56	I	Page replacement, Page Release, Page Size.		Off Line
57	I	Revision		Off Line
58	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
		UNIT-5		
59	I	**Disk Performance Optimization**	T1	Off Line
60	I	Introduction,	T1	Off Line
61	I	Why Disk Scheduling is necessary,	T1	Off Line
62	I	Disk Scheduling strategies,	T1	Off Line
63	I	Rotational optimization.	T1	Off Line
64	I	Class test	T1	Off Line
65	I	**File and Database Systems**	T1	Off Line
66	I	Revision	T1	Off Line
67	I	Class Test	T1	Off Line
68	I	Introduction, Data Hierarchy	T1	Off Line
69	I	Files, File Systems,	T1	Off Line
70	I	File Organization	T1	Off Line
71	I	File Allocation	T1	Off Line
72	I	Free Space Management	T1	Off Line
73	I	File Access control.	T1	Off Line

74	I	Revision		Off Line
75	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		

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LESSON PLAN

PROGRAMME: III CS C	**SEMESTER/ YEAR: 2021-22**
COURSE: OPERATING SYSTEM	**COURSE CODE: SCSJC52**
FACULTY 'S NAME: Mrs.S.Kirubha Rani	**TOTAL HOURS : 75**

SYLLABUS

Objectives:

1. To provide a comprehensive and integrated coverage of Services Marketing in Indian business context.
2. To facilitate the learner the role of marketing mix in the Services Marketing context.

COURSE OUTCOME:

CO1: **Introduction to Operating Systems**
CO2: **Asynchronous Concurrent Execution**
CO3: **Deadlock and Indefinite Postponement**
CO4: **Real Memory Organization and Management**
CO5: **Disk Performance Optimization**

Unit I:

Introduction to Operating Systems: Introduction, What is an Operating systems, Operating system components and goals, Operating systems architecture. Process Concepts: Introduction, Process States, Process Management, Interrupts, Interprocess Communication.

Unit II:

Asynchronous Concurrent Execution: Introduction, Mutual Exclusion, Implementing Mutual Exclusion Primitives, Software solutions to the Mutual Exclusion Problem, Hardware solution to the Mutual Exclusion Problem, Semaphores. Concurrent Programming: Introduction, Monitors.

Unit III:

Deadlock and Indefinite Postponement: Introduction, Examples of Deadlock, Related Problem Indefinite Postponement, Resource concepts, Four Necessary conditions for Deadlock, Deadlock solution, Deadlock Prevention, Deadlock Avoidance with Dijkstra's Banker's algorithm, Deadlock Detection, Deadlock Recovery.
Processor Scheduling: Introduction, Scheduling levels, Preemptive Vs Non- Preemptive Scheduling Priorities, Scheduling objective, Scheduling criteria, Scheduling algorithms. **Unit IV:**
Real Memory Organization and Management: Introduction, Memory organization, Memory Management, Memory Hierarchy, Memory Management Strategies, Contiguous Vs Non-Contiguous Memory allocation, Fixed Partition Multiprogrammimg, Variable Partition multiprogramming. **Virtual Memory Management:** Introduction, Page Replacement, Page Replacement Strategies, Page Fault Frequency (PFF) Page replacement, Page Release, Page Size.

Unit V:

Disk Performance Optimization: Introduction, Why Disk Scheduling is necessary, Disk Scheduling strategies, Rotational optimization. **File and Database Systems:** Introduction, Data Hierarchy, Files, File Systems, File Organization, File Allocation, Free Space Management, File Access control.

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Unit II : Chapter 5: 5.1, 5.2, 5.3, 5.4(up to 5.4.2), 5.5, 5.6 & Chapter 6: 6.1, 6.2
Unit III : Chapter 7: 7.1, 7.2, 7.3, 7.4, 7.5, 7.6, 7.7, 7.8, 7.9, 7.10 Chapter 8: 8.1, 8.2, 8 3, 8.4, 8.5, 8.6, 8.7 Unit IV : Chapter 9: 9.1, 9 2, 9.3, 9 4, 9.5, 9.6, 9.8, 9.9 Chapter 11: 11.1, 11.5, 11.6, 11.8, 11.9, 11.10
Unit V : Chapter 12: 12.1, 12.4, 12.5, 12.6 Chapter 13: 13.1, 13 2, 13.3, 13.4, 13.5, 13.6, 13.7, 13.8

Reference Books:

1. An introduction to Operating systems concepts and Practice, Pramod Chandra P. Bhatt, PHI, Second Edition, 2008.

2. Operating System Concepts, Abraham Silberschatz Peter Galvin Greg Gagne, 6th edition Windows XP Update, Wiley India edition, 2007.

3. Operating Systems Principles and Design, Pal Choudhury, PHI Learning, 2011.

4. Operating Systems, A Concept Based Approach Dhananjay M.Dhamdhere Tata Mc Graw Hill, .

COURSE PLAN- 1st SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
		UNIT-1		
1	I	Introduction, What is an Operating systems	T1	Off Line
2	I	Operating system components and	T1	Off Line
3	I	goals, Operating systems architecture	T1	Off Line
4	I	Process Concepts: Introduction	T1	Off Line
5	I	Revision		Off Line
6	I	Class Test		Off Line
7	I	Process States,	T1	Off Line
8	I	Process Management	T1	Off Line
9	I	Interrupts,	T1	Off Line
10	I	Inter process Communication	T1	Off Line
11	I	Revision		Off Line
12	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
		UNIT-2		
13	I	**Asynchronous Concurrent Execution:** Introduction, Mutual Exclusion	T1	Off Line
14	I	Implementing Mutual Exclusion Primitives	T1	Off Line
15	I	Software solutions to the Mutual Exclusion Problem	T1	Off Line
16	I	Hardware solution to the Mutual Exclusion Problem	T1	Off Line
17	I	Revision		Off Line
18	I	Class Test		Off Line
19	I	Semaphores.	T1	Off Line
20	I	Concurrent Programming	T1	Off Line
21	I	Introduction, Monitors	T1	Off Line
22	I	Revision		Off Line
23	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		

	UNIT-3			
24	I	**Deadlock and Indefinite Postponement**	T1	Off Line
25	I	Introduction, Examples of Deadlock,	T1	Off Line
26	I	Related Problem Indefinite Postponement,	T1	Off Line
27	I	Resource concepts,	T1	Off Line
28	I	Four Necessary conditions for Deadlock	T1	Off Line
29	I	Deadlock solution,	T1	Off Line
30	I	Deadlock Prevention		Off Line
31	I	Deadlock Avoidance with Dijkstra's Banker's algorithm	T1	Off Line
32	I	Revision		Off Line
33	I	Class Test		Off Line
34	I	Deadlock Detection,	T1	Off Line
35	I	Deadlock Recovery	T1	Off Line
36	I	**Processor Scheduling**	T1	Off Line
37	I	Introduction, Scheduling levels	T1	Off Line
38	I	Preemptive Vs Non- Preemptive Scheduling Priorities	T1	Off Line
39	I	Scheduling objective, Scheduling criteria	T1	Off Line
40	I	Scheduling algorithms	T1	Off Line
41	I	Revision		Off Line
42	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
	UNIT-4			
43	I	**Real Memory Organization and Management**	T1	Off Line
44	I	Introduction, Memory organization,	T1	Off Line
45	I	Memory Management, Memory Hierarchy		Off Line
46	I	Memory Management Strategies,	T1	Off Line
47	I	Contiguous Vs Non-Contiguous Memory allocation		Off Line
48	I	Fixed Partition Multiprogrammimg,	T1	Off Line
49	I	Variable Partition multiprogramming.	T1	Off Line
50	I	Revision		Off Line
51	I	Class Test		Off Line
52	I	**Virtual Memory Management**		Off Line
53	I	Introduction, Page Replacement	T1	Off Line
54	I	, Page Replacement Strategies		Off Line
55	I	Page Fault Frequency (PFF)	T1	Off Line

56	I	Page replacement, Page Release, Page Size.		Off Line
57	I	Revision		Off Line
58	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
	UNIT-5			
59	I	**Disk Performance Optimization**	T1	Off Line
60	I	Introduction,	T1	Off Line
61	I	Why Disk Scheduling is necessary,	T1	Off Line
62	I	Disk Scheduling strategies,	T1	Off Line
63	I	Rotational optimization.	T1	Off Line
64	I	Class test	T1	Off Line
65	I	**File and Database Systems**	T1	Off Line
66	I	Revision	T1	Off Line
67	I	Class Test	T1	Off Line
68	I	Introduction, Data Hierarchy	T1	Off Line
69	I	Files, File Systems,	T1	Off Line
70	I	File Organization	T1	Off Line
71	I	File Allocation	T1	Off Line
72	I	Free Space Management	T1	Off Line
73	I	File Access control.	T1	Off Line
74	I	Revision		Off Line
75	I	Class Test		Off Line
		UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		

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PROGRAMME: II B COM CA C	SEMESTER/YEAR: 2021-22
COURSE : DATA BASE APPLICATIONS	COURSE CODE: CCAJC31
FACULTY'S NAME: B.MEENAKSHI	TOTAL HOURS :75

LESS ON PLAN

Objectives:

1. It helps the students to know about DataBase Applications
2. It helps the students to know about queries of sql and PL/Sql

Course Code: **Course Name: DATABASE APPLICATIONS**

On Completion of the course, the students will be able to

CO1: Explain the features of database management systems and Relational database.

CO2: Explain transaction Management in relational database System.

CO3: Create and populate a RDBMS for a real life application, with constraints and keys, using SQL.

CO4: Retrieve any type of information from a data base by formulating complex queries in SQL.

CO5: Analyze the existing design of a database schema and apply concepts of normalization to design an optimal database.

SYLLABUS

UNIT:I

DATA, INFORMATION AND INFORMATION PROCESSING- Introduction-Definition of information-Quality of information-Information Processing. INTRODUCTION TO DATA BASE MANAGEMENT SYTEMS(DBMS)-Introduction-Why a database?-Characteristics of data in a database-Database management system-Why DBMS?-Type of database management systems-Hierarchical model-Network model-Relational model

UNIT : II Data definition-Basic structure of SQL Queries-SQL data types and schemes-Built-in Data types in SQL-User defined data types-Large object types-Integrity constraints.

UNIT: III Entity- Relationship(E-R) modeling- Introduction-E-R model- components of an E-R model- E-R modeling symbols. RDBMS Terminology – The relational data integrity – Relational Data Manipulation- Codd's Rules- Tables, views – Indexes –Nulls, Tables, Views – Indexes – Nulls- Quries and Sub Queries – Aggregate Functions – Joins and Unions.

UNIT: IV PL/SQL Blocks – PL/SQL Architecture- PL/SQL variables – PL/SQL data types – Control Structures – Cursors – PL/SQL Exceptions – PL/SQL Triggers – Types of Triggers – Procedures and packages.

UNIT:V FILE ORGANIZATION AND FILE STRUCTURE-Introduction-Operations on file-File storage organization-Storage media-File structure-Record types. DATA NORMALISATION- Introduction- First normal form- Second normal form – Third normal form - Boyce - Codd normal form - Fourth normal form- Fifth normal form. BOOKS FOR STUDY:

1. Alexis Leon & Mathews Leon – Data base management systems – Leon vikas publishing, Chennai, 2002. Chapters 1,2,3,5,7,8,9,10,11,12,14,15,16,17,18,21,46 –D.

COURSE PLAN- 3RD SEMESTER 2021-22

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO

	UNIT-1				
1	I	**DATABASE APPLICATION :Introduction**	T1		
2	II	DATA, INFORMATION AND INFORMATION PROCESSING	T1		
3	III	Introduction-Definition of information	T1		
4	IV	**Introduction-Definition of information-**	T1		
5	V	Quality of information	T1		
6	I	Information Processing	T1		
7	II	INTRODUCTION TO DATA BASE MANAGEMENT SYTEMS(DBMS)-	T1		
8	III	Introduction-Why a database?	T1		
9	IV	Characteristics of data in a database	T1		
10	V	Database management system-Why DBMS?	T1		
11	I	Database management system-Why DBMS?	T1		
12	II	Type of database management systems	T1		
13	III	Hierarchical model-Network model-Relational model Overall view	T1		
14	IV	Hierarchical model-Network model	T1		
15	V	Relational model	T1		

16	I	Finite Automata	T1		
17	II	Minimizing the number states of DFA	T1		
18	III	REVISION			
19	IV	TEST CHAPTER 3(UNIT I)			
		UNIVERSITY QUESTIONS			
		ICT CLASS			
		TEST			
	UNIT-2				
		Data definition	T1		
20	V	Data definition	T1		
21	I	Data definition	T1		
22	II	Basic structure of SQL Queries	T1		
23	III	Basic structure of SQL Queries	T1		
24	IV	Basic structure of SQL Queries	T1		
25	V	SQL data types and schemes	T1		
26	I	SQL data types and schemes	T1		
27	II	SQL data types and schemes	T1		
28	III	Built-in Data types in SQL	T1		
29	IV	Built-in Data types in SQL	T1		
30	V	Built-in Data types in SQL	T1		
31	I	User defined data types			
		Large object types			
		Integrity constraints.			
	UNIT-3				
32	II	Built-in Data types in SQL	T1		
33	III	Built-in Data types in SQL	T1		
34	IV	Built-in Data types in SQL	T1		
35	V	User defined data types	T1		
36	I	Large object types	T1		
37	II	Large object types			
38	III	Integrity constraints.	T1		
39	IV	Large object types	T1		
40	V	Built-in Data types in SQL	T1		
41	I	User defined data types	T1		
42	II	Large object types	T1		
43	III	Large object types			
44	IV	Integrity constraints.	T1		
45	V	Large object types	T1		
46	I	Assignment Based on 3 rd Unit			

47	II	Test Unit 3			
	UNIT-4				
48	III	PL/SQL Blocks	T1		
49	IV	PL/SQL Architecture, PL/SQL variables,	T1		
50	V	PL/SQL data types	T1		
51	I	Control Structures			
52	II	Control Structures	T1		
53	III	Cursors	T1		
54	IV	PL/SQL Exceptions	T1		
55	V	PL/SQL Exceptions	T1		
56	I	PL/SQL Triggers			
57	II	PL/SQL Triggers			
58	III	Types of Triggers	T1		
59	IV	Types of Triggers	T1		
60		Procedures and packages	T1		
61		ICT CLASS	T1		
62		TEST	T1		
	UNIT-5				
60	V	FILE ORGANIZATION AND FILE STRUCTURE-Introduction-Operations on file-	T1		
61	I	File storage organization	T1		
62	II	Storage media	T1		
63	III	File structure	T1		
64	IV	Record types	T1		
65	V	DATA NORMALISATION-Introduction- First normal form, Second normal form			
66	I	Third normal form	T1		
67	II	Boyce - Codd normal form	T1		
68	III	Fourth normal form	T1		
69	IV	Fourth normal form	T1		
70	V	Fourth normal form	T1		
71	I	Fifth normal form	T1		
72	II	Revision Chapter 15	T1		
73		Test Important Subjective 7m Questions (All Units)	T1		
74		Test Important Subjective 10m Questions (All Units)	T1		
75		Mock Test 1			
		UNIVERSITY QUESTIONS			

		ICT CLASS			
		TEST			

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LESSON PLAN

PROGRAMME:II BSC CS A & B	**SEMESTER/ YEAR: III**
COURSE: DATA STRUCTURE AND COMPUTER ALGORITHMS	**COURSE CODE:SCSJC31**
FACULTY 'S NAME: **J.SUNITHA JOHN** **B.MEENAKSHI**	**TOTAL HOURS: 60**

SYLLABUS

Objectives:

1. Learning concept of data structures, including its representation and operations performed on them, which are then linked to sorting, searching and indexing which are performed on them.

2. Tto increases the knowledge of usage of data structures in algorithmic perspective.

COURSE OUTCOME:

CO1: Students are enable to analyze algorithms and algorithm correctness.
CO2: Understanding to summarize searching and sorting techniques
CO3: Understand to describe stack, queue and linked list operation.
CO4: Enables have knowledge of tree and graphs concepts.
CO5: Enrich the knowledge about greedy method and shortest path.

CS5: Data Structures and Computer Algorithms

(4 Hours - 4 credits)

Unit I

Introduction and Overview – Introduction – Basic Terminology; Elementary Data Organization – Data Structure Operations – Complexity of Algorithms – Other Asymptotic Notations for Complexity of Algorithms. **Arrays** – Introduction – Linear Arrays – Representation – on Linear Arrays in Memory – Traversing Linear Arrays – Inserting and Deleting – Sorting: Bubble Sort – Searching; Linear Search – Binary Search – Multidimensional Arrays. Linked List – Introduction – Linked Lists – Representation of Linked Lists in Memory – Traversing a Linked List – Memory Allocation; Garbage Collection – Insertion into a Linked List – Deletion from a Linked list.

Unit II

Stack: Introduction – Stacks – Array Representation of Stacks – Linked Representation of Stacks – Recursion - Tower of Hanoi - Implementation of Recursive Procedures by Stacks - Queue –Linked Representation of Queues – D – Queue

Unit III

Trees – Introduction – Binary Trees – Representing Binary Trees in memory – Traversal Binary Tree – Traversal algorithms using Stacks – Header Nodes; Threads – Binary Search Trees – Searching and Inserting in Binary Search Trees – Deleting in a Binary Search Trees. **Graphs** – Introduction – Graph Theory - Terminology – Sequential Representations of Graph – Adjacency Matrix; Path Matrix – Warshall's Algorithm; Shortest Paths.

Unit IV:

Algorithms: Introduction: What is an Algorithm? – Algorithm Specification – Performance Analysis – Divide and Conquer: General method – Binary Search – Finding the maximum and minimum – Merge Sort – Quick Sort – Selection –Strassen's Matrix Multiplication.

Unit V:

The Greedy Method: General Method – Knapsack problem – Job Sequencing with deadlines – **Minimum cost spanning trees:** Prim's Algorithm – Kruskal Algorithm – Optimal Storage on tapes – Optimal merge patterns – single source shortest path.

Text Books:

1. Data Structures – Seymour Lipschutz –Tata McGraw-Hill - 2006
2. Fundamentals of Computer Algorithms, Ellis Horowitz, Sartaj Sahni, Galgotia Publications Pvt. Ltd, New Delhi

Unit I : Textbook 1 Chapter 1 (1.1 to 1.4) ,

		Chapter 2 (2.5 , 2.6), Chapter (4.1 to 4.9), Chapter 5 (5.1 to 5.8)
Unit II :	Textbook 1	Chapter 6 (6.1 to 6.4, 6.7 to 6.12)
Unit III :	Textbook 1	Chapter 7 (7.1 to 7.9)
Unit IV :	Textbook 2	Chapter 1 (Except 1.4), Chapter 3 (Except 3.2, 3.9)
Unit V :	Textbook 2	Chapter 4 (Except 4.2, 4.6.3)

COURSE PLAN- 3RD SEMESTER 2021-22

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
UNIT-1					
1	I	**Introduction and Overview** – Introduction	T1	**Online-PPT**	
2	II	Basic Terminology; Elementary Data Organization	T1	**Online-PPT**	
3	III	Data Structure Operations – Complexity of Algorithms	T1	**Online-PPT**	
4	IV	Other Asymptotic Notations for Complexity of Algorithms. **Arrays** – Introduction – Linear Arrays – Representation – on Linear	T1	**Online-PPT**	
5	V	Arrays in Memory – Traversing Linear Arrays – Inserting and Deleting – Sorting: Bubble Sort – Searching; Linear Search	T1	**Online-PPT**	
6	I	Binary Search – Multidimensional Arrays. Linked List – Introduction – Linked Lists – Representation of Linked Lists in Memor	T1	**Online-PPT**	
7	II	Traversing a Linked List – Memory Allocation	T1	**Online-PPT**	
8	III	Insertion into a Linked List –	T1	**Online-PPT**	

		Deletion from a Linked list			
9	IV	Insertion into a Linked List	T1	**Online-PPT**	
UNIT-2					
19		**Stack**: Introduction	T1	**Online-PPT**	
11	V	Stacks – Array Representation of Stacks	T1	**Online-PPT**	
12	I	Linked Representation of Stacks	T1	**Online-PPT**	
13	II	Recursion	T1	**Online-PPT**	
14	III	Tower of Hanoi	T1	**Online-PPT**	
15	IV	Implementation of Recursive Procedures by Stacks	T1	**Online-PPT**	
16	V	Queue	T1	**Online-PPT**	
17	I	Linked Representation of Queues	T1	**Online-PPT**	
18	II	D – Queue		**Online-PPT**	
19	III	UNIVERSITY QUESTIONS &ASSIGNMENT			
20	IV	ICT CLASS			
21	V	TEST			
UNIT-3					
22	I	**Trees** – Introduction	T1	**Offline-BlackBoard**	
23	II	Binary Trees – Representing Binary Trees in memory – Traversal Binary Tree	T1	**Offline-BlackBoard**	
24	III	Traversal algorithms using Stacks	T1	**Offline-BlackBoard**	
25	IV	Header Nodes; Threads – Binary Search Trees – Searching and Inserting in Binary Search Trees	T1	**Offline-BlackBoard**	

26	V	Deleting in a Binary Search Trees. **Graphs** – Introduction – Graph Theory	T1	**Offline-BlackBoard**	
27	I	Terminology – Sequential Representations of Graph	T1	**Offline-BlackBoard**	
28	II	Terminology – Sequential Representations of Graph	T1	**Offline-BlackBoard**	
29	III	Terminology – Sequential Representations of Graph	T1	**Offline-BlackBoard**	
30	IV	Matrix; Path Matrix	T1	**Offline-BlackBoard**	
31	V	Matrix; Path Matrix	T1	**Offline-BlackBoard**	
32	I	Warshall's Algorithm	T1	**Offline-BlackBoard**	
33	II	Shortest Paths	T1	**Offline-BlackBoard**	
34	III	UNIVERSITY QUESTIONS &ASSIGNMENT	T1	**Offline-BlackBoard**	
35	IV	UNIVERSITY QUESTIONS &ASSIGNMENT			
36	V	ICT CLASS			
37	I	TEST			
		UNIT-4			
38	II	**Algorithms:** Introduction: What is an Algorithm?	T1	**Offline-BlackBoard**	
39	III	Algorithm Specification	T1	**Offline-BlackBoard**	
40	IV	Performance Analysis	T1	**Offline-BlackBoard**	
41	V	Divide and Conquer: General method	T1	**Offline-BlackBoard**	
42	I	Binary Search	T1	**Offline-BlackBoard**	

43	II	Finding the maximum and minimum – Merge Sort		**Offline-BlackBoard**	
44	III	Strassen's Matrix Multiplication\	T1	**Offline-BlackBoard**	
45	IV	Strassen's Matrix Multiplication	T1	**Offline-BlackBoard**	
46	V	UNIVERSITY QUESTIONS &ASSIGNMENT			
47	I	ICT CLASS	T1		
48	II	TEST			
UNIT V					
49	III	**The Greedy Method:** General Method	T1	**Offline-BlackBoard**	
50	IV	Knapsack problem – Job Sequencing with deadlines	T1	**Offline-BlackBoard**	
51	V	Knapsack problem – Job Sequencing with deadlines	T1	**Offline-BlackBoard**	
52	I	**Minimum cost spanning trees:** Prim's Algorithm		**Offline-BlackBoard**	
53	II	**Minimum cost spanning trees:** Prim's Algorithm	T1	**Offline-BlackBoard**	
54	III	Optimal Storage on tapes	T1	**Offline-BlackBoard**	
55	IV	Optimal Storage on tapes	T1	**Offline-BlackBoard**	
56	V	Optimal merge patterns	T1	**Offline-BlackBoard**	
57	I	single source shortest path.	T1	**Offline-BlackBoard**	
58	II	UNIVERSITY QUESTIONS &ASSIGNMENT			
59	III	ICT CLASS	T1		
60	IV	TEST	T1		

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LESSON PLAN

PROGRAMME: II Msc	**SEMESTER/ YEAR: 2020-21**

COURSE: Soft Computing	**COURSE CODE: CS13 / SCSJC53**
FACULTY 'S NAME: M Punitha	**TOTAL HOURS : 75Hrs**

SYLLABUS

Objectives:

- It is provide precise approximation and quick solutions for complex real-life problems.
- In simple terms, you can understand soft computing - an emerging approach that gives the amazing ability of the human mind.

Unit I : Introduction to Soft Computing –

Course Outcomes for Assessment in this Test:	
COs	**Course Outcome**
CO1	**Soft Computing Techniques**
CO2	**ANN Concepts**
CO3	**Fuzzy logic**
CO4	**Back-propagation neural networks**
CO5	**Genetic algorithm**

Introduction , Artificial Intelligence, Artificial Neural Networks, Fuzzy Systems, Genetic Algorithm and Evolutionary Programming, Swarm Intelligent Systems, Expert Systems.

Unit 2:

Artificial Neural Networks–First Generation - Introduction to Neural Networks, Biological Inspiration, Biological Neural Networks to Artificial Neural Networks, Classification of ANNs, First-generation Neural Networks.

Unit 3:

Fuzzy Logic - Introduction to Fuzzy Logic, Human Learning Ability, Imprecision, and Uncertainty, Undecidability, Probability Theory vs Possibility Theory, Classical Sets and Fuzzy Sets, Fuzzy Set Operations, Fuzzy Relations, Fuzzy Composition. Fuzzy Logic Applications : Introduction to Fuzzy Logic Applications, Fuzzy Controllers.

Unit 4 :

Genetic Algorithms and Evolutionary Programming - Introduction to Genetic Algorithms, Genetic Algorithms, Procedures of GAs, Working of GAs, Genetic Algorithm Applications.

Unit 5 :

Introduction to Swarm Intelligence - Background of Swarm Intelligent Systems, Ant Colony System, Working of Ant Colony Optimisation, Ant Colony Optimisation Algorithm for TSP.

Text Book:

Soft computing with Pprogramming, N.P.Padhy, S.P.Simon, Oxford University Press, First Edition, 2015

UNIT 1: Chapter 1 - 1.1 to 1.7 (except 1.8)

UNIT 2: Chapter 2 - 2.1 to 2.5 (except 2.6 to 2.8).

UNIT 3: Chapter 5 - 5.1 to 5.8 , chapter 6 (6.1, 6.2)

UNIT 4: Chapter 7 - 7.1 to 7.5.

UNIT 5: Chapter 8 - 8.1 to 8.5.

REFERENCES:

1. Principles of Soft computing, S.N.Sivanandam and S.N.Deepa, Wiley India Edition, 2nd Edition, 2013.

2. Neural Networks, Simon Haykin, Pearson Education, 2003.

3. Fuzzy Logic – Intelligence Control & Information , John Yen & Reza Langari, Pearson Education, New Delhi, 2003

4. Artificial Intelligence and Intelligent Systems, N.P.Padhy, Oxford University Press, 2013.

COURSE PLAN- 5st SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
	UNIT-1			
1	I	**Introduction to Soft Computing** – Introduction ,	T1	Online Mode
2	I	Artificial Intelligence,	T1	Online Mode
3	I	Artificial Neural Networks	T1	Online Mode

4	I	Fuzzy Systems	T1	Online Mode
5	I	Genetic Algorithm and Evolutionary Programming	T1	Online Mode
6	I	Swarm Intelligent Systems,	T1	Online Mode
7	I	Expert Systems	T1	Online Mode
8		TEST		
	UNIT-2			
9	I	**Artificial Neural Networks–First Generation**	T1	Online Mode
10	I	Introduction to Neural Networks,	T1	Online Mode
11	I	Biological Inspiration	T1	Online Mode
12	I	Biological Neural Networks to Artificial Neural Networks	T1	Online Mode
13	I	Classification of ANNs		Online Mode
14	I	First-generation Neural Networks.		Online Mode
		TEST		Online Mode
	UNIT-3			
16	I	**Fuzzy Logic** - Introduction to Fuzzy Logic	T1	Online Mode
17	I	Human Learning Ability	T1	Online Mode
18	I	Imprecision, and Uncertainty, Undecidability	T1	Online Mode
19	I	Probability Theory vs Possibility Theory		Online Mode
20	I	Classical Sets and Fuzzy Sets		Offline Mode
21	I	Fuzzy Set Operations, Fuzzy Relations, Fuzzy Composition.		Offline Mode
22	I	Fuzzy Logic Applications : Introduction to Fuzzy Logic Applications, Fuzzy Controllers.		Offline Mode
		TEST		Offline Mode
	UNIT-4			
23	I	**Genetic Algorithms and Evolutionary Programming**	T1	Offline Mode
24	I	Introduction to Genetic Algorithms,	T1	Offline Mode
25	I	Genetic Algorithms,	T1	Offline Mode
26	I	Procedures of GAs,	T1	Offline Mode
27	I	Working of GAs,	T1	Offline Mode

28	I	Genetic Algorithm Applications.	T1	Offline Mode
		TEST		
		UNIT-5		
29	I	Introduction to Swarm Intelligence	T1	Offline Mode
30	I	Background of Swarm Intelligent Systems,		Offline Mode
31	I	Ant Colony System		Offline Mode
32	I	Working of Ant Colony Optimisation,		Offline Mode
33	I	Ant Colony Optimisation Algorithm for TSP		Offline Mode
		TEST		Offline Mode
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LESSON PLAN

PROGRAMME: III CS C	**SEMESTER/ YEAR: 2021-2022**
COURSE:Software Engineering	**COURSE CODE: CS13 / SCSJC53**
FACULTY 'S NAME: Mrs.M.Punitha Mrs.R.Lakshmi Mrs.A.Sowmya	**TOTAL HOURS : 75Hrs**

SYLLABUS

Objectives:

- The basic objective of software engineering is to develop methods and procedures for software development that can scale up for large systems
- It can be used consistently to produce high-quality software at low cost and with a small cycle of time.
- To provide the idea of decomposing the given problem into Analysis, Desing, Implementation, Testing and Maintenance phases.

❖ To provide an idea of using various process models in the software industry according to given circumstances.

Course Outcomes for Assessment in this Test:	
COs	**Course Outcome**
CO1	Software cost Estimation Techniques
CO2	Defining the problem
CO3	Software Requirement Techniques
CO4	Design Techniques and test plans
CO5	Formal Specification Techniques

Unit I: Introduction to Software Engineering : Some Definitions – Some Size factors – Quality and Productivity Factors – Managerial Issues. **Planning a Software Project:** Defining the Problem – Developing a Solution Strategy – Planning the Development Process – Planning an Organizational Structure – Other Planning Activities.

Unit II:

Software Cost Estimation: Software Cost Factors – Software Cost Estimation Techniques – Staffing-Level Estimation – Estimating Software Maintenance Costs.

Unit III:

Software Requirements Definitions: The Software Requirements Specification – Formal Specification Techniques – Languages and Processors for Requirements Specification.

Unit IV:

Software Design: Fundamental Design Concepts – Modules and Modularization Criteria – Design Notations – Design Techniques – Detailed Design Considerations – Real-Time and Distributed System Design – Test Plans – Milestones, Walkthroughs, and Inspections - Design Guidelines.

Unit V:

Verification and Validation Techniques: Quality Assurance – Static Analysis – Symbolic Execution – Unit Testing and Debugging – System Testing – Formal Verification. **Software Maintenance:** Enhancing Maintainability During Development – Managerial Aspects of Software Maintenance – Configuration Management – Source-Code Metrics – Other Maintenance Tools and Techniques.

Text book:

Software Engineering Concepts, Richard Fairley, Tata McGraw Hill Publishing Company Limited, NewDelhi, 1997. Unit I : Chapters: 1.1 – 1.4, 2.1-2.5 Unit II : Chapters: 3.1 - 3.4 Unit III : Chapters: 4.1 – 4.3 Unit IV : Chapters: 5.1 – 5.9 Unit V : Chapters: 8.1, 8.3 – 8.7, 9.1 – 9.5

Reference Books:

1. Software Engineering – K.L.James, Prentice Hall of India Pvt. Ltd., New Delhi, 2009.
2. Fundamentals of Software Engineering – Rajib Mall, Prentice Hall of India Pvt. Ltd., New Delhi, 2003.
3. Software Engineering (A Practitioner's Approach) - Roger. S.Pressman. McGraw Hill Publication, International Edition, 5th Edition. 2001.

COURSE PLAN- 5st SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK
		UNIT-I	
1	I	Introduction to Software Engineering:Some Definitions	T1
2	II	Some Size factors	T1
3	III	Quality and Productivity Factors	T1
4	IV	Managerial Issues	T1
5	V	Test	
6	VI	Planning a Software Project: Defining the Problem	T1
7	I	Developing a Solution Strategy	T1
8	II	Planning the Development Process	T1
9	III	Planning an Organizational Structure Other Planning Activities.	T1
10	IV	Project size Estimation Techniques	TI
11	V	Revision	
12	VI	TEST	
		UNIT-II	
13	I	**Software Cost Estimation:** Software Cost Factors	T1
14	II	Software Cost Estimation Techniques	T1
15	III	Staffing-Level Estimation	T1

16	IV	Estimating Software Maintenance Costs.	T1
17	V	Test	
18	VI	Classification of software Model	TI
19	I	Agile Software Development model	TI
20	II	Delphi cost Estimation Techniques	TI
21	III	Software testing-Blackbox Testing	TI
22	IV	Software testing-WhiteBox Testing	TI
23	V	SoftwareEngineering-coupling , Cohesion	TI
24	VI	Revision	
25	I	TEST	
		UNIT-III	
26	II	**Software Requirements Definitions:**	T1
27	III	The Software Requirements Specification Techniques	T1
28	IV	Languages and Processors for Requirements Specification	T1
29	V	Constructive cost Model	TI
30	VI	Test	TI
31	I	Waterfall Model and its uses	TI
32	II	Spiral model, Iterative process	TI
33	III	Capability maturity Model(CMM)	TI
34	IV	Formal Specification	TI
35	V	Revision	
36	VI	TEST	
		UNIT-IV	
37	I	**Software Design:** Fundamental Design Concepts	T1
38	II	Modules and Modularization Criteria	T1

39	III	Design Notations	T1
40	IV	Test	
41	V	Design Techniques	T1
42	VI	Detailed Design Considerations	T1
43	I	Real-Time and Distributed System Design	T1
44	II	Test Plans – Milestones, Walkthroughs, and Inspections	T1
45	III	Software Development Life Cycle Model(SDLC)	
46	IV	Design Guidelines.	T1
47	V	Revision	
48	VI	TEST	
		UNIT-V	
49	I	**Verification and Validation Techniques:** Quality Assurance	T1
50	II	Static Analysis – Symbolic Execution	T1
51	III	Unit Testing and Debugging – System TestingFormal Verification	T1
52	IV	Test	
53	V	**Software Maintenance:** Enhancing Maintainability During Development	T1
54	VI	Managerial Aspects of Software Maintenance	T1
55	I	Managerial Aspects of Software Maintenance	
56	II	Configuration Management	T1
57	III	Source-Code Metrics	T1
58	IV	Other Maintenance Tools and Techniques	T1
59	V	Automation Tool	TI
60	VI	Revision	
61	I	ICT CLASS	
62	II	TEST	

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Mangayarkarasi College of Arts & Science for Women, Paravai.
(Affiliated to Madurai Kamaraj University)
ISO 9001:2015 Certified Institution, Re- Accredited by NAAC with 'B' grade

LESSON PLAN

PROGRAMME : MSC (MATHS) & MA(TAMIL)	SEMESTER/ YEAR: 3th Sem, 2020-21

COURSE: Principles of InformationTechnology	COURSE CODE : ECSJN51
FACULTY'S NAME: Ms. A. SOWMIYA	TOTAL HOURS: 60

Objective:

Principle of Information Technology is a knowledge and skills associated with the basic of computer education. Students develop computer literacy skills to adapt to emerging technologies used in the global marketplace.

COURSE OUTCOME:

CO1: To develop an understanding of computer networking basics

CO2: Students can apply the knowledge, techniques, and skills in the development of a software product.

CO3: To know the Introduction to Operating systems. Input and Output Devices

CO4: To learn working Software Technical Skills Word Processing

CO5: Use Multimedia Applications and user Interface for Effective Animation

SYLLABUS

PRINCIPLES OF INFORMATION TECHNOLOGY

(4 Hours – 4 Credits)

Unit I:

Introduction: The Internet – world wide web – Getting connected to web –web Multimedia – Bandwidth – Information Technology introduction – Information Systems.

Unit II:

What is Software – IT in Business and industry – IT in Education – IT in Science – Engineering and Math – Computers in hiding – Global Position System

Unit III:

Input Output Devices – Modern Storage Device – User interfaces – ApplicationPrograms – Operating System – Introduction - Types

Unit IV:

Entering and Editing Documents – Formatting Documents – Database Application – Principles of Data Storage – Network Application – Fax,voice and information services

Unit V :

Multimedia – Introduction – Tools of Multimedia – Graphic effects andtechniques – Multimedia Authoring Tools – Multimedia on the Web.

Text Book:

1. Information Technology The Breaking Wave – Denis P.Curtin,Kim Foley, Sen & Cathleen Morin - McGrawHill.

Unit I	:	1.1,1.3,1.6,2.1,2.2
Unit II	:	2.3,2.4,2.6,2.8,2.9,2.10
Unit III	:	4.1,5.2,6.2,6.3,6.4,6.5
Unit IV	:	7.1,73,8.4,8.5,9.1
Unit V	:	10.1,10.3,10.6,10.8

Reference Books :

1.Fundamentals of Information Technology, Alexis Leon,Mathews Leon, Leon Vikas Ltd, Second Edition, 2009.

2. Introduction to Information Systems - Alexis Leon, MathewsLeon, Vijay Nicole Imprints Pvt. Ltd, Second Reprint, 2009.

3.Multimedia Technology and Applications- David Hillman,Delmar Publishers Reprint 2012.

rasi College of Arts & Science for Women, Paravai.

(Affiliated to Madurai Kamaraj University)

ISO 9001:2015 Certified Institution, Re- Accredited by NAAC with 'B' grade

COURSE PLAN- 3th SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
		UNIT-1		
1	I	Introduction of Internet	T1	Online-PDF
2	II	world wide web	T1	Online-PDF
3	III	Getting connected to web	T1	Online-PDF
4	IV	web Multimedia	T1	Online-PDF
5	V	Bandwidth	T1	Online-PDF
6	I	Information Technology introduction	T1	Online-PDF
7	II	Information Systems	T1	Online-PDF
8		UNIVERSITY QUESTIONS & ASSIGNMENT		
9		ICT CLASS		
10		TEST		
		UNIT-2		
11	III	What is Software	T1	Online-PDF
12	IV	IT in Business and industry	T1	Online-PDF
13	V	IT in Education	T1	Online-PDF
14	I	IT in Science	T1	Online-PDF
15	II	Engineering and Math	T1	Online-PDF
16	III	Computers in hiding	T1	Online-PDF

17	IV	Global Positioning System	T1	Online-PDF
18		UNIVERSITY QUESTIONS &ASSIGNMENT		
19		ICT CLASS		
20		TEST		
UNIT-3				
21	V	Input Output Devices	T1	Off Line-Blackboard
22	I	Modern Storage Device	T1	Off Line-Blackboard
23	II	User interfaces	T1	Off Line-Blackboard
24	III	ApplicationPrograms	T1	Off Line-Blackboard
25	IV	Introduction of Operating System	T1	Off Line-Blackboard
26	V	Types	T1	Off Line-Blackboard
27		UNIVERSITY QUESTIONS &ASSIGNMENT		
28		ICT CLASS		
29		TEST		
UNIT-4				
30	I	Entering and Editing Documents	T1	Off Line-Blackboard
31	II	Formatting Documents	T1	Off Line-Blackboard
32	III	Database Application	T1	Off Line-Blackboard
33	IV	Principles of Data Storage	T1	Off Line-Blackboard
34	V	Network Application	T1	Off Line-Blackboard
35	I	Fax,voice and information services	T1	Off Line-Blackboard
36		UNIVERSITY QUESTIONS &ASSIGNMENT		
37		ICT CLASS		
38		TEST		
UNIT-5				

39	II	Multimedia	T1	Off Line-Blackboard
40	III	Introduction	T1	Off Line-Blackboard
41	IV	Tools of Multimedia	T1	Off Line-Blackboard
42	V	Graphic effects andtechniques	T1	Off Line-Blackboard
43	I	Multimedia Authoring Tools	T1	Off Line-Blackboard
44	II	Multimedia on the Web	T1	Off Line-Blackboard
45		UNIVERSITY QUESTIONS &ASSIGNMENT		
46		ICT CLASS		
47		TEST		

Sign of HOD	Sign of Faculty
Sign of Dean Academics	

Mangayarkarasi College of Arts & Science for Women, Paravai.

(Affiliated to Madurai Kamaraj University)

LESSON PLAN

PROGRAMME: I M.COM(CA)	SEMESTER : I SEMESTER
COURSE : PRINCIPLES OF INFORMATION TECHNOLOGY	COURSE CODE :TCAJC11
FACULTY'S NAME: G.Maheswari	\TOTAL HOURS :60

SYLLABUS

OBJECTIVES

1. To understand the basics of computers.
2. To Understand how computers are used in Commerce and Business.

COURSE OUTCOME

On Completion of the course, the students will be able to,

CO1: Be able to analyze a problem, and identify and define the computing requirements appropriate to its solution.

CO2:Be able to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs.

CO3:Apply the knowledge of mathematics, science and computing in the core information technologies.

CO4:Identify, design, and analyze complex computer systems and implement and interpret the results from those systems.

CO5:Design, implement and evaluate a computer-based system, or process component, to meet the desired needs within the realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

Unit – I

Introduction to Computers, Components of Computers, Hardware and Software: Computer systems – Importance of Computers in Business – Data and Information – Data Processing, Data Storage and Data Retrieval capabilities – Computer Applications in various areas of business.

Unit – II

Types of Computer systems – Analog, Digital and Hybrid Computers. Micro Mini, Mainframe and Super Computers – Business and Scientific Computer systems – Generation of Computers – Data Processing systems – Batch, online and Real Time system – Time Sharing, Multi programming and Multi processing systems – Networking: Local and Wide Area Network.

Unit – III

Software: System Software and Application Software: Programming Language – Machine Language – Assembly Language, High Level Languages – Number system: Decimal, Binary, Octal and Hexa Decimal.

Unit – IV

Operating systems: DOS – UNIX , Linux – Windows: Windows NT, Windows NT, Windows 2000, Windows XP, Windows Vista. 1842

Unit – V System Analysis and Design – Computer Based Information System – Transaction Processing – Office Automation.

Books Recommended

1. Roger Hunt and John Shellery – Computer and Common Sense.

2. Bright Man Dimsdale – Using Micro Computer.

3. Taxali, R.K, Software Made Simple.

4. Alexis Leon and Mathew,Introduction to Information Technology, Vijay Necole Imprint Pvt., Ltd.,

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S.NO	HOURS	TOPIC	BOOK	TEACHING MODE
1	1	Introduction to Computers	T1	ONLINE-PPT
2	1	Components of Computers	T1	ONLINE PPT
3	2	Hardware Computer Systems	T1	ONLINE PPT
4	1	Software Computer Systems	T1	ONLINE PPT
5	1	Importance of Computers in Business	T1	ONLINE PPT
6	1	Data and Information	T1	ONLINE PPT
7	1	Data Processing	T1	ONLINE PPT
8	2	Data Storage and retrieval Capabilities	T1	ONLINE PPT
9	1	Memory Management	T1	ONLINE PPT
10	1	Computer Applications in Various areas of Business	T1	ONLINE PPT
11	1	UNIVERSITY QUESTIONS		
12	2	Test Unit 1		
	UNIT - II			
13	1	Types of Computers	T1	ONLINE-PPT
14	1	Analog, Digital and Hybrid Computers	T1	ONLINE PPT
15	2	Micro Mini, Mainframe and Super Computers	T1	ONLINE PPT
16	1	Business Computer systems	T1	ONLINE PPT
17	1	Scientific Computer systems	T1	ONLINE PPT
18	1	Generation of Computers	T1	ONLINE PPT
19	1	Data Processing systems	T1	ONLINE PPT
20	2	Batch, Online Processing Systems	T1	ONLINE PPT
21	1	Real Time system	T1	ONLINE PPT
22	1	Time Sharing Systems	T1	ONLINE PPT
23	1	Multi programming systems	T1	ONLINE PPT
24	1	Multi processing systems	T1	ONLINE PPT
25	1	Networking: Local and Wide Area Network.	T1	ON;LINE PPT
26	1	UNIVERSITY QUESTIONS		

27	1	Test Unit II		
	UNIT –III			
28	1	System Software	T1	LM
29	1	Types of System Software	T1	BB
30	1	Application Software	T1	LM
31	1	Types of Application Software	T1	BB
32	1	Machine Language	T1	BB
33	1	Assembly Language	T1	BB
34	1	High Level Languages	T1	BB
35	2	Number system: Decimal	T1	BB
36	1	Number system : Binary	T1	LM
37	1	Number system : Octal	T1	BB
38	1	Number system :Hexa Decimal	T1	BB
39	1	Number Conversion : From Decimal to Binary and Vice-versa	T1	BB
40	1	Number Conversion : From Octal to Hexa Decimal and Vice-versa	T1	BB
41	1	UNIVERSITY QUESTIONS		
42	1	Test Unit III		
	UNIT - IV			
43	1	Operating systems Introduction	T1	LM
44	1	DOS - Operating systems	T1	BB
45	2	UNIX - Operating systems	T1	BB
46	1	LINUX- Operating systems	T1	BB
47	1	WINDOWS- Operating systems	T1	BB
48	1	WINDOWS NT- Operating systems	T1	BB
49	1	WINDOWS 2000- Operating systems	T1	BB
50	1	Windows XP- Operating systems	T1	BB
51	1	ICT CLASS		BB
52	1	UNIVERSITY QUESTIONS		
53	1	Test Unit IV		
		UNIT – V		
54	1	System Development Life Cycle(SDLC)	T1	LM

55	2	Computer Based Information System	T1	BB
56	1	Management Information System	T1	BB
67	1	ICT CLASS		
58	1	UNIVERSITY QUESTIONS		
59	1	Test Unit V		
60	1	REVISION FOR EACH UNIT		

BB-Black Board

LM-Lecture Mode

PPT-Power Point Presentation

Sign of HOD :	Sign of Faculty :
Sign of Dean Academics :	

LESSON PLAN

Mangayarkarasi College of Arts & Science for Women, Paravai.

(Affiliated to Madurai Kamaraj University)

PROGRAMME: III(CS) A,B,C	**SEMESTER/ YEAR: 2021-22**
COURSE:RELATIONAL DATABASMANAGEMENT SYSTEMS	**COURSE CODE: SCSJC51**
FACULTY 'S NAME: **Mrs.V.KALAISELVI** **Mrs.G.MAHESWARI** **Mrs .M.VIJI**	**TOTAL HOURS : 75**

SYLLABUS

OBJECTIVES

The main objectives of database management system are data availability, data integrity, data security, and data independence.

COURSE OUTCOME:

CO1: To identify a range of concepts, techniques and tools for creating and editing the interactive multimedia applications.

CO2:To identify the current and future issues related to multimedia technology.

CO3: To identify both theoretical and practical aspects in designing multimedia systems surrounding the emergence of multimedia technologies using contemporary hardware and software technologies.

CO4: Understand analog and digital conversion process

CO5: Discuss the hardware requirement of multimedia system

Mangayarkarasi College of Arts & Science for Women, Paravai.

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CS11: Relational Database Management Systems

(5 Hours- 4 Credits)

Unit I:

Overview of database systems: Managing Data – A Historical Perspective – File Systems Versus a DBMS – Advantages of a DBMS – Describing and Storing Data in a DBMS – Queries in a DBMS – Transaction Management – Structure of a DBMS – People Who Work with Databases. 383

Introduction to database design: Database Design and ER Diagrams – Entities, Attributes, and Entity Sets – Relationships and Relationship Sets – Additional Features of ER Model – Conceptual Design with the ER Model.

Unit II:

The relational model: Introduction to the Relational Model – Integrity Constraints over Relations – Enforcing Integrity Constraints – Querying Relational Data – Logical Database Design: ER to Relational – Introduction to Views – Destroying / Altering Tables and Views. **Relational algebra and calculus:** Preliminaries – Relational Algebra: Selection and Projection – Set Operations –Renaming – Joins - Division Relational Calculus: Tuple Relational Calculus – Domain Relational Calculus.

Unit III:

SQL queries, constraints, triggers: The Form of a Basic SQL Query - UNION, INTERSECT, and EXCEPT – Nested Queries – Aggregate Operators – Null Values – Complex Integrity Constraints in SQL – Triggers and Active Databases – Designing Active Databases

Unit IV:

Schema refinement and normal forms: Introduction to Schema Refinement – Functional Dependencies – Reasoning about FD's – Normal Forms – Properties of Decompositions – Normalization – Schema Refinement in Database Design – Other Kinds of Dependencies.

Unit V:

Overview of transaction management: The ACID Properties – Transactions and Schedules – Concurrent Execution of transactions – Lock Based Concurrency Control – Performance of Locking – Transaction Support in SQL – Introduction to Crash Recovery. **Security and authorization:** Introduction to Database Security - Access Control – Discretionary Access Control – Mandatory Access Control – Security for Internet Applications – Additional Issues Related to Security.

Text book:

Mangayarkarasi College of Arts & Science for Women, Paravai.

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Database Management Systems, Raghu Ramakrishnan and Johannes Gehrke, McGraw Hill International Edition, Third Edition, 2003. Unit I : Chapters 1.1 – 1.9, 2.1 – 2.5 Unit II : Chapters 3.1 – 3.7, 4.1 – 4.3 Unit III : Chapters 5.2 – 5.9 Unit IV : Chapters 19.1 – 19.8

Unit V : Chapters 16.1 – 16.7, 21.1 – 21.6

COURSE PLAN- 5th SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
		UNIT-1		
1	I	Overview of Database systems	T1	Off Line
2	I	Managing Data	T1	Off Line
3	I	File system Vs DBMS-Advantages of DBMS	T1	Off Line
4	I	Queries-transaction management	T1	Off Line
5	I	Structure of a DBMS-people who work with Databases.		Off Line
6	I	Database design and ER diagrams		Off Line
7	I	Entity, Attribute, Entity set	T1	Off Line
8	I	Relationships and relationship sets	T1	Off Line
9	I	Additional Features of ER model	T1	Off Line
10	I	Conceptual design with ER model	T1	Off Line
11		Assignment Based on 1 st Unit		Off Line
12		REVISION		Off Line
		REVISION		
12		Test Unit 1		
		UNIT-2		
13	I	Introduction to the Relational Model	T1	Off Line
14	I	integrity constraints	T1	Off Line

15	I	Querying Relational data	T1	Off Line
16	I	Logical Database Design : ER to relational	T1	Off Line
17	I	Introduction to Views		Off Line
18	I	Destroying and Altering tables and views		Off Line
19	I	Relational algebra and calculus-preliminaries-	T1	Off Line
20	I	Relational Algebra	T1	Off Line
21	I	Selection and Projection	T1	Off Line
22	I	Set Operations		Off Line
23	I	Renaming-Joins		Off Line
24		Relational calculus, Tuple Relational calculus		
25		Domain Relational Calculus		
26		Assignment on Unit-II		
	UNIT-3			
27	I	SQL queries, constraints	T1	Off Line
28	I	The form of a Basic SQL Query	T1	Off Line
29	I	UNION,INTERSECT,EXCEPT	T1	Off Line
30	I	Nested Queries	T1	Off Line
31	I	Aggregate Operators	T1	Off Line
32	I	Null Values	T1	Off Line
33	I	Triggers		Off Line
34	I	Active Databases	T1	Off Line
35	I	Designing Active Databases		Off Line
36	I	Types of Triggers		Off Line
37	I	SQL server Trigger before INSERT	T1	Off Line
38	I	Examples for Nested SQL queries	T1	Off Line
39	I	Queries for Aggregate Operators	T1	Off Line
40	I	Assignment Based on 3 rd Unit	T1	Off Line
41	I	Test Unit 3	T1	Off Line

42	I		T1	Off Line
40	I		T1	Off Line
41	I			Off Line
42	I			Off Line
43				
44				
45				
46	**UNIT-4**			
47	I	Introduction to Schema Refinement	T1	Off Line
48	I	Functional Dependencies	T1	Off Line
49	I	Reasoning about FD`s-Normal Forms		Off Line
50	I	1st and 2nd Normal forms	T1	Off Line
51	I	3rd and 4th Normal forms	T1	Off Line
52	I	BCNF and 5NF	T1	Off Line
53	I	Properties of Decomposition	T1	Off Line
54	I	Normalization		Off Line
55	I	Schema Refinement in Database Design		Off Line
56	I	Other Kinds of Dependencies		Off Line
57	I	Functional Dependencies	T1	Off Line
58	I	Assignment Based on 4 th Unit		Off Line
59	I	Test Unit 4	T1	Off Line
60	I	Working with text- text tool-Book Cover-Converting Text Type.		Off Line
61	I	Revision		Off Line
62	I	Class Test		Off Line
63		UNIVERSITY QUESTIONS		
64		ICT CLASS		
65		TEST		
66	**UNIT-5**			
67	I	The ACID Properties	T1	Off Line

68	I	Transactions and schedules	T1	Off Line
68	I	Concurrent execution of transaction	T1	Off Line
69	I	Lock Based Concurrency Control	T1	Off Line
70	I	Transaction Support in SQL	T1	Off Line
71	I	Introduction to Crash Recovery	T1	Off Line
72	I	Introduction to Database Security	T1	Off Line
73	I	Access Control-Discretionary	T1	Off Line
74	I	Access Control	T1	Off Line
75	I	Mandatory Access Control	T1	Off Line
		University question revision		
		University question revision		

SIGN OF HOD	**SIGN OF FACULTY**
SIGN OF DEAN ACADEMICS	

LESSON PLAN

PROGRAMME: M.COM CA	**SEMESTER/ YEAR: III SEMESTER , 2021-22**
COURSE: DATA BASE MANAGEMENT SYSTEMS	**COURSE CODE: TCAJC32**

Mangayarkarasi College of Arts & Science for Women, Paravai.

(Affiliated to Madurai Kamaraj University)

FACULTY'S NAME:	TOTAL HOURS: 75

SYLLABUS

Objective:

The objective of a database management system is to facilitate the creation of data structures and relieve the programmer of the problems of setting up complicated files. Data base management systems have developed from a concept of the data base as something distinct from the programs accessing it.

COURSE OUTCOME:

Mangayarkarasi College of Arts & Science for Women, Paravai.

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CO1: To identify the basic concepts and various data model used in database design ER modeling concepts and architecture use and design queries using SQL

CO2: To apply relational database theory and be able to describe relational algebra expression, tuple and domain relation expression fro queries.

CO3:To recognize and identify the use of normalization and functional dependency, indexing an hashing technique used in database design.

CO4:To recognize or identify the purpose of query processing and optimization and also demonstrate the basic of query evaluation.

CO5:To apply and relate the concept of transaction, concurrency control and recovery in database

Unit I:

Introduction to Data base: Defining a database – Understanding of RDBMS – objects of a Relational Database – Macros – Functions of DBMS.

Unit II:

Understanding database – creating a database, creating a table, working in tables, defining primary key, saving and closing the table – Opening a Table, modifying table, selecting a field and multiple field, editing records in a table – printing the table – crating relationship between tables

Unit III:

Forms: Creating a Form – Changing the view of a form – moving through the records – Adding a new field – Changing the name of a field – Editing the field – Deleting a record from the form – Renaming a form.

Unit IV:

Queries: Creating a query on a table – sorting records – hiding and un hiding a field – setting and deleting criterion – reforming calculations – savings and closing a query.

Unit V:

Reports: generating Reports with report wizard – Closing the report.

Books Recommended

1. Vikas Gupta, Comdex Comter Course Kit, Dremtech.
2. Cary N. Prague. Michacl.R. Irvin Comdex, Access of Windows.

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COURSE PLAN- I st SEMESTER 2021-22

S No	HOURS	TOPIC	BOOK	PAGE NO
		UNIT-1		
1	1	Introduction to Data base	T1	
2	1	Defining a database	T1	
3	1	Understanding of RDBMS	T1	
4	3	Objects of a Relational Database	T1	
5	2	Macros	T1	
6	2	Functions of DBMS	T1	
7	1	Functions of DBMS	T1	
8	2	University Questions		
9	1	Ict Class		
10	1	Test		
		UNIT-2		
11	2	Understanding database	T1	
12	2	creating a database, creating a table, working in tables,	T1	

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13	2	defining primary key, saving and closing the table	T1	
15	2	Opening a Table, modifying table,	T1	
16	2	Selecting a field and multiple field	T1	
17	2	Editing records in a table	T1	
18	2	Printing the table	T1	
19	2	Creating relationship between tables	T1	
20	2	Creating relationship between tables	T1	
21	2	University Questions		
22	1	ICT CLASS		
23	1	TEST		
	UNIT-3			
24	1	Forms: Creating a Form	T1	
25	3	Changing the view of a form	T1	
26	1	Moving through the records –	T1	
27	1	Adding a new field	T1	
28	1	Changing the name of a field	T1	
29	2	Editing the field	T1	
30	1	Deleting a record from the form	T1	
31	2	Renaming a form.	T1	
32	1	ICT CLASS		
33	1	TEST		

	UNIT-4			
34	1	Queries:	T1	
35	3	Creating a query on a table	T1	
36	1	Sorting records	T1	
37	2	Hiding and un hiding a field		
38	2	Setting and deleting criterion		
39	2	Reforming calculations		
40	2	Savings and closing a query.	T1	
41	1	UNIVERSITY QUESTIONS	T1	
42	1	ICT CLASS		
43	1	TEST		

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	UNIT-5			
44	1	Reports:	T1	
45	1	Generating Reports with report wizard	T1	
46	1	Closing the report	T1	
47	1	SEMINAR	T1	
48	1	UNIVERSITY QUESTIONS		
49	1	ICT CLASS		
50	1	TEST		

Sign of HOD	Sign of Faculty
Sign of Dean Academics	

LESSON PLAN

PROGRAMME: M.SC(CS)	**SEMESTER/ YEAR:1st Semester**
COURSE: DATA STRUCTURES AND ALGORITHMS	**COURSE CODE: ECSJC13**
FACULTY'S NAME: Dr.A.V.Seethalakshmi	**TOTAL HOURS: 75**

SYLLABUS

Objective:

- Analyze the asymptotic performance of algorithms.
- Write rigorous correctness proofs for algorithms.
- Demonstrate a familiarity with major algorithms and data structures.
- Apply important algorithmic design paradigms and methods of analysis.

COURSE OUTCOME:

CO1:To provide the types of Trees, ADP .

CO2: To implement static and dynamic Hashing Techniques, Priority Queues.

CO3:.Classification of Types of Trees and operations of Trees.
CO4: To introduce Dynamic Programming and solve the problems by using dynamic programming Techniques
CO5: To implement Backtracking method to solve the problems

Unit I:

Trees: Heaps – Binary Search Trees – Selection Trees – Forests – Representation of Disjoint Sets – Counting Binary Trees. Graphs: The Graph Abstract Data type – Elementary Graph Operations – Minimum Cost Spanning Trees – Shortest Paths and Transitive Closure – Activity Networks

Unit II

Hashing: Introduction – Static hashing – Dynamic hashing – Bloom filters. Priority Queues: Single- and Double ended priority queues – Leftist Trees – Binomial Heaps – Fibonacci Heaps – Pairing Heaps – Symmetric Min-Max Heaps – Interval Heaps.

Unit III:

Efficient binary search trees: Optimal Binary Search Trees – AVL Trees – Red-Black Trees – Splay Trees. Multiway Search Trees: m-way Search Trees – B-Trees – B+-Trees.

Unit IV:

Dynamic Programming: The General Method – Multistage graphs – All-pairs shortest paths – Single-source shortest paths – Optimal binary search trees – string editing – 0/1 knapsack – reliability design – The Travelling Salesperson problem – flow shop scheduling. Basic Traversal and Search Techniques: Techniques for Binary Trees – Techniques for Graphs – Connected Components and Spanning Trees – Biconnected Components and DFS.

Unit V:

Graph coloring – Hamiltonian cycles – Knapsack problem. Branch and Bound: The Method – 0/1 Knapsack problem – Traveling Salesperson(*) – Efficiency considerations.

Text Books:

1. Fundamentals of Data Structures in C++ – Ellis Horowitz, Sartaj Sahni, Dinesh Mehta – University Press(India) Private Limited, Second Edition, Reprinted 2017.

Unit I : Chapter 5.6 – 5.11 and 6

Unit II : Chapter 8 and 9

Unit III : Chapter 10 and 11

2. Fundamentals of Computer Algorithms - Ellis Horowitz, Sartaj Sahni, Sanguthevar Rajasekaran – University Press(India) Private Limited, Second Edition, Reprinted 2017.

Unit IV : Chapter 5 and 6

Unit V : Chapter 7 and 8

COURSE PLAN- 1ST SEMESTER

S No	HOURS	TOPIC	BOOK	TEACHING MODE
		UNIT-1		
1	1	Trees:	T1	PPT
2	1	Heaps	T1	PPT
3	1	Binary Search Trees	T1	PPT
4	1	Selection Trees	T1	PPT
5	1	Forest	T1	PPT
6	1	Representation of Disjoint Sets	T1	PPT
7	1	Counting Binary Trees	T1	BLACK BOARD
8	1	Graphs: The Graph Abstract Data type	T1	BLACK BOARD
9	1	Elementary Graph Operations	T1	BLACK BOARD
10	1	Minimum Cost Spanning Trees	T1	BLACK BOARD
11	1	Shortest Paths and Transitive Closure – Activity Networks	T1	BLACK BOARD
12	1	ICT CLASS		
13	1	TEST		
		UNIT-2		
14	1	Hashing: Introduction	T1	BLACK BOARD
15	1	Static hashing	T1	BLACKBOARD
16	1	Dynamic hashing	T1	PPT
17	1	Bloom filters	T1	PPT
18	1	Priority Queues:	T1	PPT
19	1	Single- and Double ended priority queues	T1	PPT
20	1	Single- and Double ended priority queues	T1	PPT
21	1	Binomial Heaps	T1	PPT
22	1	Fibonacci Heaps	T1	PPT
23	1	Pairing Heaps	T1	PPT

24	1	Symmetric Min-Max Heaps	T1	PPT
25	1	Interval Heaps.	T1	PPT
26	1	ICT CLASS	T1	
27	1	TEST	T1	
	UNIT-3			
28	1	Efficient binary search trees	T1	PPT
29	1	Optimal Binary Search Trees	T1	PPT
30	1	AVL Trees	T1	PPT
31	1	Red-Black Trees	T1	BLACK BOARD
32	1	Splay Trees	T1	BLACK BOARD
33	1	Multiway Search Trees	T1	BLACK BOARD
34	1	m-way Search Trees	T1	BLACK BOARD
35	2	B-Trees	T1	BLACK BOARD
36	1	B+-Trees	T1	BLACK BOARD
37	1	UNIVERSITY QUESTIONS		
38	1	ICT CLASS		
39	1	TEST		
	UNIT-4			
40	1	Dynamic Programming: The General Method	T2	BLACK BOARD
41	2	Multistage graphs	T2	BLACK BOARD
42	1	All-pairs shortest paths	T2	BLACK BOARD
43	1	Single-source shortest paths	T2	BLACK BOARD
44	1	Optimal binary search trees	T2	BLACK BOARD
45	1	string editing	T2	BLACK BOARD
46	1	0/1 knapsack	T2	BLACK BOARD
47	1	reliability design	T2	BLACK BOARD
48	1	The Travelling Salesperson problem	T2	PPT
49	1	flow shop scheduling.	T2	PPT
50	1	Basic Traversal and Search Techniques	T2	PPT
51	1	Techniques for Binary Trees	T2	PPT
52	1	Techniques for Graphs	T2	PPT
53	1	Connected Components and Spanning Trees		PPT

54	1	Biconnected Components and DFS.	T2	PPT
55	1	ICT CLASS		PPT
56	1	TEST		

	UNIT-5			
57	2	Graph coloring	T2	PPT
58	1	Hamiltonian cycles	T2	PPT
59	1	Knapsack problem	T2	PPT
60	2	Branch and Bound	T2	PPT
61	2	The Method –	T2	PPT
62	1	0/1 Knapsack problem	T2	PPT
63	1	Traveling Salesperson(*)	T2	PPT
64	2	Efficiency considerations.	T2	PPT
65	2	UNIVERSITY QUESTIONS		
66	2	ICT CLASS		
67	2	TEST		

Sign of Faculty	Sign of HOD
Sign of Dean Academies	

LESSON PLAN

PROGRAMME: M.SC(CS)	**SEMESTER/ YEAR:1st Semester**
COURSE: DATA STRUCTURES AND ALGORITHMS	**COURSE CODE: ECSJC13**
FACULTY'S NAME: Dr.A.V.Seethalakshmi	**TOTAL HOURS: 75**

SYLLABUS

Objective:

- Analyze the asymptotic performance of algorithms.
- Write rigorous correctness proofs for algorithms.
- Demonstrate a familiarity with major algorithms and data structures.
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CO5: To implement Backtracking method to solve the problems

Unit I:

Trees: Heaps – Binary Search Trees – Selection Trees – Forests – Representation of Disjoint Sets – Counting Binary Trees. Graphs: The Graph Abstract Data type – Elementary Graph Operations – Minimum Cost Spanning Trees – Shortest Paths and Transitive Closure – Activity Networks

Unit II

Hashing: Introduction – Static hashing – Dynamic hashing – Bloom filters. Priority Queues: Single- and Double ended priority queues – Leftist Trees – Binomial Heaps – Fibonacci Heaps – Pairing Heaps – Symmetric Min-Max Heaps – Interval Heaps.

Unit III:

Efficient binary search trees: Optimal Binary Search Trees – AVL Trees – Red-Black Trees – Splay Trees. Multiway Search Trees: m-way Search Trees – B-Trees – B+-Trees.

Unit IV:

Dynamic Programming: The General Method – Multistage graphs – All-pairs shortest paths – Single-source shortest paths – Optimal binary search trees – string editing – 0/1 knapsack – reliability design – The Travelling Salesperson problem – flow shop scheduling. Basic Traversal and Search Techniques: Techniques for Binary Trees – Techniques for Graphs – Connected Components and Spanning Trees – Biconnected Components and DFS.

Unit V:

Graph coloring – Hamiltonian cycles – Knapsack problem. Branch and Bound: The Method – 0/1 Knapsack problem – Traveling Salesperson(*) – Efficiency considerations.

Text Books:

1. Fundamentals of Data Structures in C++ – Ellis Horowitz, Sartaj Sahni, Dinesh Mehta – University Press(India) Private Limited, Second Edition, Reprinted 2017.

Unit I : Chapter 5.6 – 5.11 and 6

Unit II : Chapter 8 and 9

Unit III : Chapter 10 and 11

2. Fundamentals of Computer Algorithms - Ellis Horowitz, Sartaj Sahni, Sanguthevar Rajasekaran – University Press(India) Private Limited, Second Edition, Reprinted 2017.

Unit IV : Chapter 5 and 6

Unit V : Chapter 7 and 8

COURSE PLAN- 1ST SEMESTER

S No	HOURS	TOPIC	BOOK	TEACHING MODE
	UNIT-1			
1	1	Trees:	T1	PPT
2	1	Heaps	T1	PPT
3	1	Binary Search Trees	T1	PPT
4	1	Selection Trees	T1	PPT
5	1	Forest	T1	PPT
6	1	Representation of Disjoint Sets	T1	PPT
7	1	Counting Binary Trees	T1	BLACK BOARD
8	1	Graphs: The Graph Abstract Data type	T1	BLACK BOARD
9	1	Elementary Graph Operations	T1	BLACK BOARD
10	1	Minimum Cost Spanning Trees	T1	BLACK BOARD
11	1	Shortest Paths and Transitive Closure – Activity Networks	T1	BLACK BOARD
12	1	ICT CLASS		
13	1	TEST		
	UNIT-2			
14	1	Hashing: Introduction	T1	BLACK BOARD
15	1	Static hashing	T1	BLACKBOARD
16	1	Dynamic hashing	T1	PPT
17	1	Bloom filters	T1	PPT
18	1	Priority Queues:	T1	PPT
19	1	Single- and Double ended priority queues	T1	PPT
20	1	Single- and Double ended priority queues	T1	PPT
21	1	Binomial Heaps	T1	PPT
22	1	Fibonacci Heaps	T1	PPT
23	1	Pairing Heaps	T1	PPT

24	1	Symmetric Min-Max Heaps	T1	PPT
25	1	Interval Heaps.	T1	PPT
26	1	ICT CLASS	T1	
27	1	TEST	T1	
	UNIT-3			
28	1	Efficient binary search trees	T1	PPT
29	1	Optimal Binary Search Trees	T1	PPT
30	1	AVL Trees	T1	PPT
31	1	Red-Black Trees	T1	BLACK BOARD
32	1	Splay Trees	T1	BLACK BOARD
33	1	Multiway Search Trees	T1	BLACK BOARD
34	1	m-way Search Trees	T1	BLACK BOARD
35	2	B-Trees	T1	BLACK BOARD
36	1	B+-Trees	T1	BLACK BOARD
37	1	UNIVERSITY QUESTIONS		
38	1	ICT CLASS		
39	1	TEST		
	UNIT-4			
40	1	Dynamic Programming: The General Method	T2	BLACK BOARD
41	2	Multistage graphs	T2	BLACK BOARD
42	1	All-pairs shortest paths	T2	BLACK BOARD
43	1	Single-source shortest paths	T2	BLACK BOARD
44	1	Optimal binary search trees	T2	BLACK BOARD
45	1	string editing	T2	BLACK BOARD
46	1	0/1 knapsack	T2	BLACK BOARD
47	1	reliability design	T2	BLACK BOARD
48	1	The Travelling Salesperson problem	T2	PPT
49	1	flow shop scheduling.	T2	PPT
50	1	Basic Traversal and Search Techniques	T2	PPT
51	1	Techniques for Binary Trees	T2	PPT
52	1	Techniques for Graphs	T2	PPT
53	1	Connected Components and Spanning Trees		PPT

54	1	Biconnected Components and DFS.	T2	PPT
55	1	ICT CLASS		PPT
56	1	TEST		

	UNIT-5			
57	2	Graph coloring	T2	PPT
58	1	Hamiltonian cycles	T2	PPT
59	1	Knapsack problem	T2	PPT
60	2	Branch and Bound	T2	PPT
61	2	The Method –	T2	PPT
62	1	0/1 Knapsack problem	T2	PPT
63	1	Traveling Salesperson(*)	T2	PPT
64	2	Efficiency considerations.	T2	PPT
65	2	UNIVERSITY QUESTIONS		
66	2	ICT CLASS		
67	2	TEST		

Sign of Faculty	Sign of HOD
Sign of Dean Academies	

LESSON PLAN

PROGRAMME: M.SC(CS)	**SEMESTER/ YEAR:1st Semester**
COURSE: DATA STRUCTURES AND ALGORITHMS	**COURSE CODE: ECSJC13**
FACULTY'S NAME: Dr.A.V.Seethalakshmi	**TOTAL HOURS: 75**

SYLLABUS

Objective:

- Analyze the asymptotic performance of algorithms.
- Write rigorous correctness proofs for algorithms.
- Demonstrate a familiarity with major algorithms and data structures.
- Apply important algorithmic design paradigms and methods of analysis.

COURSE OUTCOME:

CO1:To provide the types of Trees, ADP .

CO2: To implement static and dynamic Hashing Techniques, Priority Queues.

CO3:.Classification of Types of Trees and operations of Trees.
CO4: To introduce Dynamic Programming and solve the problems by using dynamic programming Techniques
CO5: To implement Backtracking method to solve the problems

Unit I:

Trees: Heaps – Binary Search Trees – Selection Trees – Forests – Representation of Disjoint Sets – Counting Binary Trees. Graphs: The Graph Abstract Data type – Elementary Graph Operations – Minimum Cost Spanning Trees – Shortest Paths and Transitive Closure – Activity Networks

Unit II

Hashing: Introduction – Static hashing – Dynamic hashing – Bloom filters. Priority Queues: Single- and Double ended priority queues – Leftist Trees – Binomial Heaps – Fibonacci Heaps – Pairing Heaps – Symmetric Min-Max Heaps – Interval Heaps.

Unit III:

Efficient binary search trees: Optimal Binary Search Trees – AVL Trees – Red-Black Trees – Splay Trees. Multiway Search Trees: m-way Search Trees – B-Trees – B+-Trees.

Unit IV:

Dynamic Programming: The General Method – Multistage graphs – All-pairs shortest paths – Single-source shortest paths – Optimal binary search trees – string editing – 0/1 knapsack – reliability design – The Travelling Salesperson problem – flow shop scheduling. Basic Traversal and Search Techniques: Techniques for Binary Trees – Techniques for Graphs – Connected Components and Spanning Trees – Biconnected Components and DFS.

Unit V:

Graph coloring – Hamiltonian cycles – Knapsack problem. Branch and Bound: The Method – 0/1 Knapsack problem – Traveling Salesperson(*) – Efficiency considerations.

Text Books:

1. Fundamentals of Data Structures in C++ – Ellis Horowitz, Sartaj Sahni, Dinesh Mehta – University Press(India) Private Limited, Second Edition, Reprinted 2017.

Unit I : Chapter 5.6 – 5.11 and 6

Unit II : Chapter 8 and 9

Unit III : Chapter 10 and 11

2. Fundamentals of Computer Algorithms - Ellis Horowitz, Sartaj Sahni, Sanguthevar Rajasekaran – University Press(India) Private Limited, Second Edition, Reprinted 2017.

Unit IV : Chapter 5 and 6

Unit V : Chapter 7 and 8

COURSE PLAN- 1ST SEMESTER

S No	HOURS	TOPIC	BOOK	TEACHING MODE
	UNIT-1			
1	1	Trees:	T1	PPT
2	1	Heaps	T1	PPT
3	1	Binary Search Trees	T1	PPT
4	1	Selection Trees	T1	PPT
5	1	Forest	T1	PPT
6	1	Representation of Disjoint Sets	T1	PPT
7	1	Counting Binary Trees	T1	BLACK BOARD
8	1	Graphs: The Graph Abstract Data type	T1	BLACK BOARD
9	1	Elementary Graph Operations	T1	BLACK BOARD
10	1	Minimum Cost Spanning Trees	T1	BLACK BOARD
11	1	Shortest Paths and Transitive Closure – Activity Networks	T1	BLACK BOARD
12	1	ICT CLASS		
13	1	TEST		
	UNIT-2			
14	1	Hashing: Introduction	T1	BLACK BOARD
15	1	Static hashing	T1	BLACKBOARD
16	1	Dynamic hashing	T1	PPT
17	1	Bloom filters	T1	PPT
18	1	Priority Queues:	T1	PPT
19	1	Single- and Double ended priority queues	T1	PPT
20	1	Single- and Double ended priority queues	T1	PPT
21	1	Binomial Heaps	T1	PPT
22	1	Fibonacci Heaps	T1	PPT
23	1	Pairing Heaps	T1	PPT

24	1	Symmetric Min-Max Heaps	T1	PPT
25	1	Interval Heaps.	T1	PPT
26	1	ICT CLASS	T1	
27	1	TEST	T1	
	UNIT-3			
28	1	Efficient binary search trees	T1	PPT
29	1	Optimal Binary Search Trees	T1	PPT
30	1	AVL Trees	T1	PPT
31	1	Red-Black Trees	T1	BLACK BOARD
32	1	Splay Trees	T1	BLACK BOARD
33	1	Multiway Search Trees	T1	BLACK BOARD
34	1	m-way Search Trees	T1	BLACK BOARD
35	2	B-Trees	T1	BLACK BOARD
36	1	B+-Trees	T1	BLACK BOARD
37	1	UNIVERSITY QUESTIONS		
38	1	ICT CLASS		
39	1	TEST		
	UNIT-4			
40	1	Dynamic Programming: The General Method	T2	BLACK BOARD
41	2	Multistage graphs	T2	BLACK BOARD
42	1	All-pairs shortest paths	T2	BLACK BOARD
43	1	Single-source shortest paths	T2	BLACK BOARD
44	1	Optimal binary search trees	T2	BLACK BOARD
45	1	string editing	T2	BLACK BOARD
46	1	0/1 knapsack	T2	BLACK BOARD
47	1	reliability design	T2	BLACK BOARD
48	1	The Travelling Salesperson problem	T2	PPT
49	1	flow shop scheduling.	T2	PPT
50	1	Basic Traversal and Search Techniques	T2	PPT
51	1	Techniques for Binary Trees	T2	PPT
52	1	Techniques for Graphs	T2	PPT
53	1	Connected Components and Spanning Trees		PPT

54	1	Biconnected Components and DFS.	T2	PPT
55	1	ICT CLASS		PPT
56	1	TEST		

	UNIT-5			
57	2	Graph coloring	T2	PPT
58	1	Hamiltonian cycles	T2	PPT
59	1	Knapsack problem	T2	PPT
60	2	Branch and Bound	T2	PPT
61	2	The Method –	T2	PPT
62	1	0/1 Knapsack problem	T2	PPT
63	1	Traveling Salesperson(*)	T2	PPT
64	2	Efficiency considerations.	T2	PPT
65	2	UNIVERSITY QUESTIONS		
66	2	ICT CLASS		
67	2	TEST		

Sign of Faculty	Sign of HOD
Sign of Dean Academies	

LESSON PLAN

PROGRAMME: Advanced JAVA Programming	**SEMESTER/ YEAR: 2020-21**
COURSE: I M.Sc., (CS)	**COURSE CODE: ECSJC12**
FACULTY 'S NAME: **G. Sivabharathi M.Sc., M.Phil., B.Ed., (Ph.D.,)**	**TOTAL HOURS: 50**

Objectives

1. To develop error-free, well-documented Java programs; develop and test Java network, search engine, and web framework programs.
2. To Learn how to write, test, and debug advanced-level Object-Oriented programs using Java.

Course Outcomes

CO1: Using Graphics, Animations and Multithreading for designing Simulation and Game based applications.

CO2: Design and develop GUI applications using Abstract Windowing Toolkit (AWT), Swing and Event Handling.

CO3: Design and develop Web applications

CO4: Designing Enterprise based applications by encapsulating an application's business logic.

CO5: Designing applications using pre-built frameworks.

Unit I:

Applets: Applet Fundamentals - Applet Class - Applet Life Cycle – Steps for developing an Applet Program – Passing values through Parameters - Graphics in an Applet – Event handling **GUI Applications**: Graphical User Interface - Creating Windows - Dialog Boxes – Layout Managers - AWT Component classes - Swing Component classes – Event handling – Other AWT Components – AWT graphics classes – Other Swing controls

Unit II:

Networking: Basics - Networking in Java -Socket Programming using TCP/IP – Socket Programming using UDP – URL and InetAddress Classes **Java Database Connectivity:** Types of drivers - JDBC Architecture – JDBC Classes and Interfaces – Basic steps in developing JDBC applications – Creating a new database and table with JDBC - Working with Database metadata

Unit III:

Servlets: - Basics – Advantages - Servlet alternatives – strengths - Architecture - Servlet Life Cycle - Generic Servlet - HTTP Servlet- Passing parameters – Retrieving parameters – server side include - Cookies –Filters

Unit IV:

Java Server Pages: Overview - JSP and HTTP – JSP Engines - Working of JSP – Anatomy of JSP – JSP Syntax – Creating simple JSP page - Components of JSP -Implicit Objects

Unit V:

Web Programming – Client-Side Programming: Client-Side Programming technologies – Form design with HTML and CSS – Client-side Validation using JavaScript - Content Structuring using XML – Adding interactivity with AJAX

Web Programming - Server-Side Programming: Web Servers - Handling Request and Response - Database Access- Session Management

Text Book:

Java Programming for Core and Advanced Learners - Sagayaraj, Denis, Karthik and Gajalakshmi , University Press, 2018

Unit I: Chapters 12,13 and 14

Unit II: Chapters 15 and 16

Unit III: Chapter 19

Unit IV: Chapter 20

Unit V: Chapters 21 and 22

Reference Books:

1. Java the Complete Reference - Herbert Schildt, McGraw Hill Education, 10th Edition, New York, 2017

2. Advanced Java Programming – Uttam K.Roy , Oxford University Press, 2017

3. Core and Advanced Java, Black Book – Dreamtech Press, 2017

COURSE PLAN - 1st SEMESTER 2021-22

S No.	HOURS	TOPIC	BOOK	TEACHING MODE
	UNIT-1			
1	I	**Applets :** Applet Fundamentals	T1	OFFLINE
2	I	Applet Class	T1	OFFLINE
3	I	Applet Life Cycle	T1	OFFLINE
4	I	Steps for developing an Applet Program	T1	OFFLINE
5	I	Sample Programs	T1	OFFLINE
6	I	Passing values through Parameters	T1	OFFLINE
7	I	Graphics in an Applet	T1	OFFLINE
8	I	Event handling	T1	OFFLINE
9	I	**GUI Applications**	T1	OFFLINE
10	I	Creating Windows	T1	OFFLINE
11	I	Dialog Boxes	T1	OFFLINE
12	I	Layout Managers	T1	OFFLINE
13	I	AWT Component classes	T1	OFFLINE
14	I	Swing Component classes	T1	OFFLINE
15	I	Event handling	T1	OFFLINE
		UNIVERSITY QUESTIONS		GOOGLE CLASS ROOM
		ICT CLASS		POWERPOINT
		TEST		
	UNIT-2			
16	I	Other AWT Components	T1	OFFLINE

17	I	AWT graphics classes	T1	OFFLINE
18	I	Other Swing controls	T1	OFFLINE
19	I	**Networking:** Basics	T1	OFFLINE
20	I	Networking in Java	T1	OFFLINE
21	I	Socket Programming using TCP/IP	T1	OFFLINE
22	I	Socket Programming using UDP	T1	OFFLINE
23	I	URL and InetAddress Classes	T1	OFFLINE
24	I	**Java Database Connectivity**	T1	OFFLINE
25	I	Types of drivers	T1	OFFLINE
26	I	JDBC Architecture	T1	VIDEO CLASS
27	I	JDBC Classes and Interfaces	T1	VIDEO CLASS
28	I	Basic steps in developing JDBC applications	T1	VIDEO CLASS
29	I	Creating a new database and table with JDBC	T1	VIDEO CLASS
30	I	Working with Database metadata	T1	VIDEO CLASS
		UNIVERSITY QUESTIONS		GOOGLE CLASS ROOM
		ICT CLASS		PPT
		TEST		
UNIT-3				
31	I	**Servlets:** - Basics	T1	OFFLINE
32	I	Introduction	T1	OFFLINE
33	I	Uses of Servlets	T1	OFFLINE
34	I	Advantages	T1	OFFLINE
35	I	Servlet alternatives	T1	OFFLINE
36	I	strengths	T1	OFFLINE
37	I	Architecture - Servlet Life Cycle	T1	VIDEO CLASS
38	I	Servlet Life Cycle	T1	OFFLINE
39	I	Generic Servlet	T1	OFFLINE

40	I	HTTP Servlet	T1	OFFLINE
41	I	Passing parameters	T1	OFFLINE
42	I	Retrieving parameters	T1	OFFLINE
43	I	server side include	T1	OFFLINE
44	I	Cookies	T1	OFFLINE
45	I	Filters	T1	OFFLINE
		UNIVERSITY QUESTIONS		GOOGLE CLASS ROOM
		ICT CLASS		PPT
		TEST		
UNIT-4				
46	I	**Java Server Pages**	T1	OFFLINE
47	I	Overview	T1	OFFLINE
48	I	JSP and HTTP	T1	OFFLINE
49	I	JSP Engines	T1	OFFLINE
50	I	Working of JSP	T1	OFFLINE
51	I	JSP and HTTP	T1	OFFLINE
52	I	JDBC Classes and Interfaces	T1	OFFLINE
53	I	Cookies	T1	OFFLINE
54	I	Cookies	T1	DEMO CLASS
55	I	Filters	T1	OFFLINE
56	I	Filters	T1	OFFLINE
57	I	JSP Syntax	T1	OFFLINE
58	I	JSP Syntax with example	T1	OFFLINE
59	I	JSP Syntax	T1	OFFLINE
60	I	JSP Syntax with example	T1	DEMO CLASS
		UNIVERSITY QUESTIONS		GOOGLE CLASS ROOM
		ICT CLASS		PPT

		TEST		
UNIT-5				
61	I	Anatomy of JSP	T1	PPT
62	I	JSP Syntax	T1	PPT
63	I	JSP Syntax	T1	VIDEO CLASS
64	I	JSP Syntax with example	T1	OFFLINE
65	I	JSP Syntax with example	T1	OFFLINE
66	I	Sample Programs	T1	OFFLINE
67	I	Sample Programs	T1	OFFLINE
68	I	Creating simple JSP page	T1	OFFLINE
69	I	Creating simple JSP page	T1	OFFLINE
70	I	Sample Programs	T1	OFFLINE
71	I	Components of JSP	T1	OFFLINE
72	I	Sample Programs	T1	VIDEO CLASS
73	I	Types of JSP	T1	OFFLINE
74	I	Types of JSP	T1	OFFLINE
75	I	Implicit Objects	T1	OFFLINE
		UNIVERSITY QUESTIONS		GOOGLE CLASS ROOM
		ICT CLASS		VIDEO CLASS
		TEST		

Sign of HOD	Sign of Faculty
Sign of Dean Academics	

Mangayarkarasi College of Arts & Science for Women, Paravai.

(Affiliated to Madurai Kamaraj University)

ISO 9001:2015 Certified Institution, Re- Accredited by NAAC with 'B' grade

LESSON PLAN

PROGRAMME: I BA TAMIL	**SEMESTER/ YEAR: 2021-22**
COURSE: PART 1 FIRST SEMESTER	**COURSE CODE: UTMJL21**
FACULTY 'S NAME: DR.S. SILVIA JULIET	**TOTAL HOURS : 60**

SYLLABUS

Objectives:

தமிழ்மொழி ஒவ்வொரு காலக்கட்டத்திலும் அந்தந்தச் சூழலுக்கு ஏற்ப இலக்கியங்களைப் பெற்றுள்ளது. தமிழால் சமயங்களும் சமயங்களால் தமிழும் வளர்ந்து உள்ளதை மாணவர்களுக்குக் கற்பிப்பதே இதன் நோக்கமாகும்.

COURSE OUTCOME:

CO1: **காப்பிய இலக்கியங்கள்**

ஒருவருக்கொருவர் கருத்தைப் பரிமாற்றிக் கொள்வதற்கு ஏற்ற ஊடகமாக விளங்குவது மொழி. அம்மொழியில் தோன்றிய இலக்கிய வகைகளுள் காப்பியங்களும் ஒன்று. அவைகளில் காணப்படும் உருவம் , உள்ளடக்கம் , உத்திமுறைகள் போன்றவை, காலந்தோறும் சமுதாய மாற்றங்களுக்கு ஏற்ப எவ்வாறு மாறுபடுகின்றன என்பதை இவ்வியல் நிரூபிக்க முற்படுகிறது.

CO2: **சமய காப்பியங்கள்**

சிறப்புமிக்க மனிதப் பாத்திரங்களின் வழி நல்வினை தீவினைகள் பற்றியும், இறுதியில் இறைநிலை எய்துதல் பற்றியும், இன்றைய சூழலில் முக்தி நிலைகளின் தேவைகள் பற்றியும் கூறும் சமய இலக்கியம் , உலக வாழ்விற்கு தேவையான நன்னெறிகளைக் கூற முற்படுகிறது. அவற்றை இவ்வியல் எடுத்தியம்புகிறது.

CO3: **நாடகம்**

தத்துவார்த்த தர்க்கவாதங்களும், கருத்துச் செறிவும், நயமான மொழிநடைகளும் காணப்படும் நாடகங்களில், தனிமனித இயல்பும் அணுகுமுறையும், மற்ற மனிதர்களின் இயல்புகளோடு எவ்வாறு முரண்படுகிறது என்பதை இவ்வியல் எடுத்துக்காட்டுகிறது.

CO4: **இலக்கணம்**

பாடல் இயற்றுவதற்குப் பயன்படக்கூடிய பா, பல வகைகளைக் கொண்டுள்ளுத. வெவ்வேறு விதமான ஓசைகளை உடையனவாக இருக்கும் பா வகைகளைக் குறித்து நான்காம் இயல் விவரிக்கிறது.

CO5: **இலக்கிய வரலாறு மற்றும் படைப்பாற்றல்**

பொருண்மையில் உயர்ந்ததாகவும், பொது நலப் பண்பில் சிறந்ததாகவும், புதுமையில் புகழுடையதாகவும் விளங்கும் இலக்கியங்கள், மனித உணர்ச்சிகளையும், சிந்தனைகளையும் எவ்வாறு வெளிப்படுத்துகின்றன என்பதை இவ்வியல் எடுத்துரைக்கிறது.

அலகு 1 - காப்பிய இலக்கியங்கள்

சிலப்பதிகாரம் - கடலாடு காதை - மணிமேகலை - பாத்திரமரபு கூறிய காதை - சீவக சிந்தாமணி - கோவிந்தையார் இலம்பகம்.

அலகு 2 - காப்பிய இலக்கியங்கள்

இயேசு காவியம் - இரசம் தீர்ந்து விட்டது - சீறாப்புராணம் - பாத்திமா திருமணப் படலம் - கம்ப இராமாயணம் - அயோத்தியா காண்டம் திருவடிசூட்டி படலம்.

அலகு 3 நாடகம்

அழுக்குப்படாத அழகு - நடைபாதை நம்பிக்கை நட்சத்திரங்கள் - உறவுப் பின்னல்கள் செளந்தரவல்லி.

அலகு 4 இலக்கணம்

பா வகைகள் - வெண்பா - ஆசிரியப்பா - கலிப்பா - வஞ்சிப்பா.- **அணியிலக்கணம்** - உவமை - உருவகம் - வேற்றுமை – சிலேடை

அலகு 5 இலக்கிய வரலாறு

ஐம்பெருங்காப்பியங்கள் - ஐஞ்சிறுங்காப்பியங்கள் - நாடகத்தின் தோற்றமும் வளர்ச்சியும் - **படைப்பாற்றல்** - விளம்பரம் எழுதுதல் - திரைப்பட விமர்சனம் எழுதுதல்.

நூல்கள்

- **Booklet**

COURSE PLAN- 2nd SEMESTER 2021-22

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
	UNIT-1				
1	1	**அலகு 1 - காப்பிய இலக்கியங்கள்** *சிலப்பதிகாரம் - கடலாடு காதை* - வித்தியாதரன் காதலிக்கு விழாக்கோலம	T1	LECTURE METHOD BLACK BOARD	1-2
2	1	மாதவி ஆடிய ஆடல் வகைகள்	T1	LECTURE METHOD BLACK BOARD	3-4

3	2	கோவலன் மாதவியின் ஊடலும் கூடலும்	T1	LECTURE METHOD BLACK BOARD	4-5
4	1	**அலகு 1 - காப்பிய இலக்கியங்கள்** மணிமேகலை - பாத்திரமரபு கூறிய காதை	T1	LECTURE METHOD BLACK BOARD	5
5	1	பாத்திர மரபு கூறிய காதை	T1	LECTURE METHOD BLACK BOARD	6
6	1	பாத்திர மரபு கூறிய காதை	T1	LECTURE METHOD BLACK BOARD	6-7
7	2	**அலகு 1 - காப்பிய இலக்கியங்கள்** ***சீவக சிந்தாமணி - கோவிந்தையார் இலம்பகம்***	T1	LECTURE METHOD BLACK BOARD	7-8
8	1	ஆநிரை கவர அனைவரும் கூடினர்	T1	LECTURE METHOD BLACK BOARD	9
9	1	ஆநிரை மீட்கக் கிளம்பின படைகள்.	T1	LECTURE METHOD BLACK BOARD	10
10	1	UNIVERSITY QUESTIONS			
11	1	ICT CLASS			
12	1	TEST			
	UNIT-2				
13	2	**அலகு 2 - காப்பிய இலக்கியங்கள்** இயேசு காவியம் - இரசம்	T1	LECTURE METHOD BLACK BOARD	16-18

		தீர்ந்து விட்டது			
14	1	சீறாப்புராணம் - பாத்திமா திருமணப் படலம்	T1	LECTURE METHOD BLACK BOARD	18
15	2	பாத்திமா திருமணப் படலம்	T1	LECTURE METHOD BLACK BOARD	18-19
16	1	பாத்திமா திருமணப் படலம்	T1	LECTURE METHOD BLACK BOARD	18-19
17	1	***கம்ப இராமாயணம்*** ***அயோத்தியா காண்டம்*** ***திருவடிசூட்டி படலம்***	T1	LECTURE METHOD BLACK BOARD	11-12
18	1	பரதனுக்குப் பரத்துவாசன் ஆசி கூறுதல்	T1	LECTURE METHOD BLACK BOARD	13-14
19	1	பரத்துவாசன் விருந்தளித்தல்	T1	LECTURE METHOD BLACK BOARD	15
20	1	ராமன் பரதனுடைய இயல்பை விளக்குதல் திருவடி சூட்டுப் படலம்	T1	LECTURE METHOD BLACK BOARD	16
21	1	UNIVERSITY QUESTIONS			
22	1	ICT CLASS			
23	1	TEST			
	UNIT-3				
24	2	1. அழுக்குப்படாத அழகு	T1	DRAMATIZATION	20-36

25	2	2. நடைபாதை நம்பிக்கை நட்சத்திரங்கள்	T1	LECTURE METHOD BLACK BOARD	37-42
26	2	2. நடைபாதை நம்பிக்கை நட்சத்திரங்கள்	T1	DRAMATIZATION	43-51
27	3	3 .உறவுப் பின்னல்கள்	T1	STUDENTS PRESENTATION BLACK BOARD	52-66
28	3	4. சௌந்தரவல்லி	T1	STUDENTS PRESENTATION BLACK BOARD	67-81
29	2	UNIVERSITY QUESTIONS			
30	1	ICT CLASS			
31	1	TEST			
	UNIT-4				
32	1	**~~அலகு 4 இலக்கணம்~~** **பா வகைகள்** 1. வெண்பா 2. ஆசிரியப்பா	T1	LECTURE METHOD BLACK BOARD PPT	82-88
33	1	3. கலிப்பா 4. வஞ்சிப்பா	T1	LECTURE METHOD BLACK BOARD PPT	88-91
34	1	**~~அணியிலக்கணம்~~** 1. உவமை 2. உருவகம்	T1	GROUP DISCUSSION PPT	92-93

35	1	3. வேற்றுமை 4. சிலேடை	T1	LECTURE METHOD PPT	93-96
36	1	UNIVERSITY QUESTIONS			
37	1	ICT CLASS			
38	1	TEST			
		UNIT-5			
39	2	அலகு 5 இலக்கிய வரலாறு ஐம்பெருங்காப்பியங்கள்	T1	GROUP DISCUSSION PROJECT METHOD	97-100
40	1	ஐஞ்சிறுங்காப்பியங்கள்	T1	BLACK BOARD GROUP DISCUSSION	100-101
41	2	நாடகத்தின் தோற்றமும் வளர்ச்சியும்	T1	LECTURE METHOD PPT DRAMATIZATION	102-104
42	2	விளம்பரம் எழுதுதல்	T1	VIDEOS, DEBATES STUDENT CENTERED LEARNING	105
43	1	திரைப்பட விமர்சனம் எழுதுதல்	T1	DEBATES VIDEOS	106-110
44	2	UNIVERSITY QUESTIONS			
45	1	ICT CLASS			

46	1	TEST			

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Sign of Dean Academics	

LESSON PLAN

PROGRAMME: B. Com	**SEMESTER/ YEAR: 2022-23**
COURSE: COMMUNICATIVE ENGLISH II	**COURSE CODE: UCELE21**
FACULTY 'S NAME: MS.S.AISHWARYA	**TOTAL HOURS : 90 HRS**

SYLLABUS

Objectives:

1. To enhance the learner`s communication skills by giving adequate exposure in LSRW and related sub-skills.
2. To help the learners recognize and operate in various styles & registers in English

COURSE OUTCOME:

CO1: Develop vocabulary and improve the accuracy in grammar.
CO2: Produce words with right pronunciation.
CO3: students will develp knowledge ,skills and judgement around human communication that improve their ability to collaboratively work with others.
CO4: demonstrate positive group communication exchanges.
CO5: Create written text in a variety of literary genres.

Unit I (20 hrs)

1. Listening and speaking: a) listening and responding to complaints b) Listening to problems & offering solutions
2. Reading & Writing: a) Reading aloud b) writing a paragraph on proverbial expression
3. word power/ Vocabulary: Synonyms& antonyms
4.Grammar in Context: Adverbs &prepositions

Unit II (20 hrs)

1. Listening and speaking: a) listening to famous speeches & poems b. making short speeches.
2. Reading & Writing: a) writing opinion pieces b) reading poetry
3. word power/ Vocabulary: idioms & phrases
4.Grammar in Context: Conjunctions & interjections

Unit III (16 hrs)

1. Listening and speaking: a) listening to TED talks b. Making short presentation. C. interaction during & after the presentation
2. Reading & Writing: a) writing e-mails of complaint b) reading aloud famous speeches
3. word power/ Vocabulary: one word substitution
4.Grammar in Context: sentence pattern

Unit IV (16 hrs)

1. Listening and speaking: a. Participating in meeting
2. Reading & Writing: a) Reading Visual Text –Advertisement. b) preparing first draft of short assignments.
3. word power/ Vocabulary: Denotation & Connotation
4.Grammar in Context: sentence type

UNIT V (18 hrs)

1. Listening and speaking: a. informal interview for feature writing b) listening & responding to questions at a formal interview.
2. Reading & Writing: a) Writing lettes of application b) Reader`s theatre
3. word power/ Vocabulary: Collocation
4.Grammar in Context: Working with clauses

Text Book:

COURSE PLAN- 1st SEMESTER 2022-23

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NRQ
	UNIT-1				
1	2	Listening and speaking introduction	T1	LECTURE	7
2	2	listening and responding to complaints	T1	LECTURE	7
3	3	Listening to problems & offering solutions	T1	VIDEO CLASS	14
4	3	Reading & Writing: a) Reading aloud b) writing a paragraph	T1	LECTURE	17,19

		on proverbial expression			
5	3	word power/ Vocabulary: Synonyms& antonyms	T1	LECTURE	24
6	3	Grammar in Context: Adverbs &prepositions	T1	LECTURE	32
7	2	UNIVERSITY QUESTIONS			
8	1	ICT CLASS			
9	1	TEST			
	UNIT-2				
10	2	Listening and speaking: a) listening to famous speeches & poems	T1	VIDEO CLASS	55,65
11	2	Reading & Writing: a) writing opinion pieces	T1	LECTURE	69
12	3	word power/ Vocabulary: idioms & phrases	T1	LECTURE	74
13	3	Grammar in Context: Conjunctions & interjections	T1	LECTURE /PPT	81
14	3	making short speeches	T1	VIDEO	67
15	3	reading poetry	T1	LECTURE	65
16	2	UNIVERSITY QUESTIONS			
17	1	ICT CLASS			
18	1	TEST			
	UNIT-3				
19	3	listening to TED talks b. Making short presentation.	T1	LECTURE	93

20	2	interaction during & after the presentation	T1	LECTURE/ PPT	102
21	3	writing e-mails of complaint	T1	LECTURE	104
22	2	reading aloud famous speeches	T1	VIDEO CLASS/PPT	106
23	1	word power/ Vocabulary: one word substitution	T1	LECTURE/PPT	111
24	1	Grammar in Context: sentence pattern	T1	LECTURE /PPT	116
25	2	UNIVERSITY QUESTIONS			
26	1	ICT CLASS			
27	1	TEST			
		UNIT-4			
28	3	Participating in meeting	T1	LECTURE	121
29	3	Reading Visual Text –Advertisement.	T1	VIDEO	125
30	3	preparing first draft of short assignments.	T1	LECTURE	130
31	2	Vocabulary: Denotation & Connotation	T1	LECTURE/ PPT	132
32	1	Grammar in Context: sentence type	T1	LECTURE/ PPT	137
33	1	UNIVERSITY QUESTIONS			
34	2	ICT CLASS			
35	1	TEST			
36	2	informal interview for feature writing	T1	LECTURE/PPT	144
37	3	listening & responding to	T1	VIDEO /LECTURE	145

		questions at a formal interview.			
38	3	Writing lettes of application	T1	LECTURE/PPT	147
39	3	Reader`s theatre	T1	LECTURE	150
40	1	Vocabulary: Collocation	T1	LECTURE/PPT	154,156
41	1	Grammar in Context: Working with clauses	T1	LECTURE/PPT	171
42	2	UNIVERSITY QUESTIONS			
43	1	ICT CLASS			
44		TEST			

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LESSON PLAN

PROGRAMME: **B.ScCS, B.Sc. Physics,** **B.Sc Chemistry, B.Sc Maths**	**SEMESTER/ YEAR: 2022-23**
COURSE: PROFESSIONAL ENGLISH FOR PHYSICAL SCIENCES	**COURSE CODE: UPCLP21**
FACULTY 'S NAME: S.Aishwarya	**TOTAL HOURS: 60HRS**

Objectives:

- To develop the language skills of students by offering adequate practice in professional contexts.
- To enhance the lexical, grammatical and socio-linguistic and communicative competence of first year physical sciences students
- To focus on developing students' knowledge of domain specific registers and the required language skills.
- To develop strategic competence that will help in efficient communication
- To sharpen students' critical thinking skills and make students culturally aware of the target situation.

Course outcome:

CO1: Develop vocabulary and improve the accuracy in grammar.
CO2: Produce words with right pronunciation.
CO3: students will develop knowledge,skills and judgement around human communication that improve their ability to collaboratively work with others.
CO4: demonstrate positive group communication exchanges.
CO5: Create written text in a variety of literary genres.

Unit 1 – COMMUNICATIVE COMPETENCE

1. Calculus can save life
2. Coding as a creative art
3. Relativity of time and space
4. The spirit of Chemical Science

Unit2-PersuasiveCommunication

1. Counting the sequence
2. Robots come in peace
3. Electronic Fitness Trackers
4. Lavoisier-The Father of modern chemistry

Unit3-DigitalCompetence

1. The Fibonacci around us
2. Software Localization and social justice
3. Electronic warfare and defence
4. Phosgene-The Deadly villain of the Bhopal gas tragedy

UNIT -4 CREATIVE AND IMAGINATION

1.Walking on water like a water strider: A Glimpse on surface tension

2. The Inventionstory of Barcodes

3. Acid-Base chemistry with at-home volcanoes

4. Ada and Her Breakthrough in Analytical Engine

5. Creating web pages, Blogs, Flyers, and Brochures

UNIT 5 WORKPLACE COMMUNICATION & BASICS OF ACADEMIC WRITING

1. Workplace communication, Academic power point presentation
2. 1) Artificial intelligence-Siri Cortana, and Alexa carry
   The marks of their Human Maker
   II) Product Description
   III) Drafting a circular
3. Writing minutes of a meeting
4. 1. How do Earphones Work? The physics of sound
   2 Writing Introduction, paraphrase and summary
5. Punctuation.

COURSE PLAN-2nd SEMESTER 2021-22

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
UNIT-I **COMMUNICATIVE COMPETENCE**					
1	2	Calculus can save life	T1	LECTURE AND AUDIO LISTENING	**5**
2	2	Coding as a creative art	T1	LECTURE WITH PPT	14
3	2	Relativity of time and space	T1	LECTURE WITH PPT	24
4	2	The spirit of chemical sciences	T1	LECTURE AND ACTIVITY	35
5	1	UNIVERSITY QUESTIONS			
6	2	ICT CLASS			
7	1	TEST			

UNIT-2 **PERSUAIVE COMMUNICATION**					
8	3	Counting the sequence	T1	LECTURE	46
9	3	Robots come in peace	T1	LECTURE	59
10	2	Electronic fitness trackers	T1	LECTURE AND PPT	73

11	2	Lavoisier- The Father of Modern Chemistry	T1	LECTURE AND ACTIVITY	84
12	1	UNIVERSITY QUESTIONS			
13	2	ICT CLASS			
14	1	TEST			
UNIT-3 **DIGITAL COMPETENCE**					
15	2	The Fibonacci around us	T1	LECTURE WITH PPT	93
16	2	Software localization and social justice	T1	LECTURE WITH PPT	107
17	2	Electronic Warfare and Defence	T1	LECTURE WITH PPT	121
18	2	Phosgene-The Deadly Villain of the Bhopal Gas Tragedy	T1	BLACKBOARD	132
19	1	UNIVERSITY QUESTIONS			
20	1	ICT CLASS			
21	1	TEST			
UNIT-4 **CREATIVITY AND IMAGINATION**					
22	2	Walking on water Like a water strider: A Glimpse on Surface Tension	T1	LECTURE WITH VIDEOS	143
23	2	The Invention Story of Barcodes	T1	PPT	156
24	2	Acid -Base Chemistry with At-Home Volcanoes	T1	LECTURE WITH PPT	167

25	2	Ada and Her Breakthrough in Analytical Engine	T1	BLACKBOARD	177
26	2	Creating Web Pages, Blogs, Flyers and Brochures	T1	LECTURE	185
27	1	UNIVERSITY QUESTIONS			
28	1	ICT CLASS			
29	1	TEST			
UNIT-5 **WORLPLACE COMMUNICATION AND BASICS OF ACADEMIC WRITING**					
30	2	Workplace communication, Academic power point presentation	T1	PPT	189
31	2	I)Artificial intelligence-Siri Cortana, and Alexa Carry The Marks of Their Human Makers II) Product Description III) Drafting a circular	T1	LECTURE WITH PPT	192
32	2	Writing Minutes of a Meeting	T1	BLACKBOARD	209
33	2	Writing Introduction, Paraphrase & summary How do Earphones Work? The Physics of sound	T1	LECTURE	213
34	2	Punctuation	T1	BLACKBOARD	225
35	1	UNIVERSITY QUESTIONS			
36	1	ICT CLASS			
37	1	TEST			

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LESSON PLAN

PROGRAMME: I BCA, I B.Sc CS A,B	**SEMESTER: II / 2021-2022**
COURSE: ENVIRONMENTAL STUDIES	**COURSE CODE:UESJD21**
FACULTY 'S NAME : **Mrs.B.Subashini.** **Mrs.Nivethitha** **Mrs.M.Viji**	**TOTAL HOURS: 30**

SYLLABUS

OBJECTIVES:

1. To provide students with a broad interdisciplinary framework for understanding the relationship between humans and their environment.
2. To provide students with informed perspectives on biological and physical processes relevant to environmental problems to help students understand responsible environmental practice.

COURSE OUTCOME:

CO1: To create awareness on Environment and Resources.

CO2: To know about Ecosystem, energy flow, food chain, food web and biogeochemical cycle.

CO3: To understand the values of Bio diversity.

CO4: To understand the sustainable agriculture and exploitative human activity in polluting the environment locally and globally.

CO5: To provide awareness about issues relating to Road safety rules, Traffic signals and disasters.

Unit I. Earth and its Environment

a) Earth formation and Evolution of Earth over time – Structure of earth and its components: Atmosphere, Lithosphere, Hydrosphere and Biosphere

b) Resources – Renewable and Non- renewable resources**.**

Unit II. Ecology and Ecosystem concepts

a) Ecology definition – ecosystem – definition – structure and function –energy flow- food chain and food web – one example for an ecosystem.

b) Biogeochemical cycles – Nitrogen, Carbon, Phosphorous, Water.

Unit III. Biodiversity and India

a) Introduction- definition- values of biodiversity- threats to biodiversity-conservation of biodiversity

b) Biodiversity of India – as a mega diversity nation-bio-geographical distribution – hot spots of biodiversity- national biodiversity conservation board and its function.

Unit IV. Pollution and Global Issues

a) Definition, causes, effects and control measures of air, water, soil, marine, noise, thermal and nuclear pollution.

b) Global issues: Global warming and Ozone layer depletion.

Unit V. Development and disaster management

a) Sustainable Development - sustainable agriculture – organic farming, irrigation – water harvesting and waste recycling – cyber waste and management.

b) Disaster management – Flood and Drought – Earthquake and Tsunami – Landslides and Avalanches – Cyclones and Hurricanes – Precautions, Warnings rescue and Rehabilitation.

c) Road safety rules – Traffic signals – Conduct of road safety awareness programme.

d) Role of the Colleges, Teachers and Students in village adoption towards clean, green and make

in villages in various aspects.

Text Books

1. Environmental Studies, 2020, R Murugeshan, Millennium Publishers & Distributors

Reference Books

1. Arumugam, N, 2016, Concepts of Ecology. Saras publication, Nagercoil

COURSE PLAN- II SEMESTER 2021-22

S.No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
		UNIT-1			
1	1	Earth formation and Evolution of Earth over time.	T1	LM	1-2
2	1	Structure of earth and its components :Atmosphere , Lithosphere, Hydrosphere and Biosphere	T1	BB & LM	2-7
3	3	Resources – Renewable and Non- renewable resources.	T1	ICT	8-35
4	1	Report writing			
5	1	TEST & UNIVERSITY QUESTIONS			
		UNIT-2			
6	1	Ecology definition – ecosystem definition – structure and function	T1	PPT	37-41
7	1	Energy flow- Food chain and Food web, Example for an ecosystem.	T1	ICT	42-47
8	1	Biogeochemical cycles -	T1	BB & LM	47-52

S.No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
		Nitrogen, Carbon, Phosphorous, Water			
9	1	Report writing			
10	1	TEST &UNIVERSITY QUESTIONS			
UNIT-3					
11	1	Introduction- definition- values of biodiversity	T1	LM	53-56
12	1	Threats to biodiversity- conservation of biodiversity	T1	ICT	57-62
13	1	Biodiversity of India – as a mega diversity nation-bio-geographical distribution - hot spots of biodiversity- national biodiversity conservation board and its function	T1	BB & LM	62-68
14	1	Report writing			
15	1	TEST & UNIVERSITY QUESTIONS			
UNIT-4					
16	3	Definition, causes, effects and control measures of air, water, soil, marine, noise, thermal and nuclear pollution.	T1	GD	69-95
17	1	Global issues: Global warming and Ozone layer depletion.	T1	ICT	95-100
18	1	Report writing			
19	1	TEST &UNIVERSITY QUESTIONS			
UNIT-5					

S.No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
20	1	Sustainable Development - sustainable agriculture – organic farming, irrigation	T1	BB & LM	102-108
21	1	Water harvesting and waste recycling – cyber waste and management	T1	PPT	108-116
22	1	Disaster management – Flood and Drought – Earthquake and Tsunami	T1	BB & LM	116-125
23	1	Road safety rules – Traffic signals, Conduct of road safety awareness program.	T1	ICT	128-137
24	1	Role of the Colleges, Teachers and Students in village adoption towards clean, green and make in villages in various aspects.	T1	GD	137-141
25	1	Report writing			
26	1	TEST &UNIVERSITY QUESTIONS			

LM-Lecture Mode

BB-Black Board

GD-Group Discussion

PPT-PowerPoint Presentation

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LESSON PLAN

PROGRAMME:I B.SC(CS)-A, B	**SEMESTER/ YEAR: II / 2021-22**
COURSE: Object Oriented Programming with C++	**COURSE CODE:SCSJC21**
FACULTY 'S NAME: **Mrs.B.Rajalakshmi** **Mrs.T.Uma Jothi**	**TOTAL HOURS: 60**

SYLLABUS

Objectives:

1. Object Oriented Programming with C++ strengthens the basic concepts of Objects, Class and C++Programming.
2. It helps the students to develop logic of the program which will help them to create programs and application.

COURSE OUTCOME:

CO1: To know about the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects.
CO2:.Understand dynamic memory management techniques using pointers, constructors, destructors, etc
CO3: Classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming.
CO4: To know the concept of function overloading, operator overloading, virtual functions and C++ stream classes.
CO5: To know the use of various File concepts with the help of programs..

Object Oriented Programming with C++

(4 Hours - 4 credits)

Unit I:

Software Crisis – Software Evolution – Basic Concepts of Object-Oriented Programming – Benefits of OOP – Object-Oriented Languages - Applications of OOP – Application of C++ - Structure of a C++ Program – Tokens – Keywords – Identifiers – Basic Data Types – User- defined Data types – Derived data types – Symbolic constants – Type compatibility – Declaration of variables – Dynamic initialization of variables –Reference variables – Operators in C++ - Manipulators – Type cast operator – Expressions and their types-Implicit conversions – Control structures – The main function – Function prototyping – inline functions – Function overloading.

Unit II:

Specifying a class – Defining member functions – Making an outside function inline – Nesting of member functions – Private member functions – Array within a class – Memory allocation for objects – Static data members – Static member functions – Array of objects - Objects as function arguments – Friendly functions – Returning objects – Constant member functions – Constructors – Parameterized constructor – Multiple constructors in a class – Constructors with default arguments – Dynamic initialization of objects – Copy constructor – Destructors.

Unit III:

Defining operator overloading – Overloading unary operators – Overloading binary operators – Overloading binary operators using friend function – Rules for overloading operators - Defining derived classes – Single inheritance – Making a private member inheritable – Multilevel inheritance – Multiple inheritance – Hierarchical inheritance – Hybrid inheritance - Virtual base classes – Constructors in derived class – Member classes: Nesting of classes.

Unit IV:

Pointer to objects – this pointer – Pointers to derived classes – Virtual functions – Pure virtual functions – C++ Stream classes – Unformatted I/O operations – Managing output with manipulators.

Unit V:

Classes of file stream operations – Opening and Closing files – Detecting end of file – More about open() function – File modes, File pointers and their manipulation – Sequential input and output operations – Command-line arguments- Templates: class templates and function templates.

Text Book:

Object Oriented Programming with C++**,** E. Balagurusamy, Sixth Edition-2013, McGraw Hill Education (India) Private Limited, New Delhi.

Unit I : Chapter 1 (Except 1.3, 1.4), Chapter 2 (Only), Chapter 3 (Except 3.20, 3.21, 3.22), Chapter 4

Unit II : Chapter 5 (Except 5.18, 5.19), Chapter 6 (Except 6.8, 6.9, 6.10)

Unit III : Chapter 7, Chapter 8

Unit IV : Chapter 9, Chapter 10

Unit V : Chapter 11 (Except 11.8), Chapter 12 (Only 12.2, 12.3 and 12.4).

COURSE PLAN- II SEMESTER 2021-2022

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
UNIT-1					
1	1	Software Crisis, Software Evolution, Basics Concepts of OOP	T1	LM	1
2	1	Benefits of OOP, Object Oriented Languages	T1	LM	10

3	1	Application of C++,Structure of C++ Program	T1	BB & LM	17,24
4	1	Tokens, Data Types	T1	BB & LM	29
5	1	Symbolic Constants	T1	BB & LM	38
6	1	Operators, Manipulators	T1	BB & LM	43
7	1	Expressions and their types	T1	BB & LM	53
8	1	Control Structure	T1	PPT	58
9	1	The Main Function, Inline Function, Function Overloading	T1	BB & LM	70
10	1	UNIVERSITY QUESTIONS & ASSIGNMENT			
11	1	ICT CLASS(Operators, Manipulators)			
12	1	TEST			
UNIT-2					
13	1	Specifying a Class	T1	BB & LM	88
14	1	Arrays within a Class	T1	BB & LM	99
15	1	Array of Objects	T1	BB & LM	108
16	1	Friend Function, Constant Member function	T1	BB & LM	113

17	1	Constructor	T1	BB & LM	130
18	1	Multiple Constructor	T1	BB & LM	133
19	1	Dynamic Initialization of Objects	T1	BB & LM	136
20	1	Copy Constructor, Destructor	T1	BB & LM	139
21	1	Programs based on Operator Overloading, Friend Function in C++, Constructor & Destructor	T1	BB & LM	
22	1	UNIVERSITY QUESTIONS & ASSIGNMENT			
23	1	ICT CLASS(Constructor)			
24	1	TEST			
UNIT-3					
25	1	Operator Overloading	T1	BB & LM	153
26	1	Binary Operator Overloading, Rules for Overloading Operators	T1	BB & LM	155
27	1	Inheritance	T1	BB & LM	180
28	1	Making a private member Inheritable	T1	BB & LM	187
29	1	Multi level Inheritance	T1	BB & LM	190
30	1	Multiple Inheritance	T1	BB & LM	194
31	1	Hierarchical Inheritance,	T1	BB & LM	198

		Hybrid Inheritance			
32	1	Virtual Base Class	T1	BB & LM	202
33	1	Constructor in Derived Classes, Member Classes	T1	BB & LM	207
34	1	UNIVERSITY QUESTIONS & ASSIGNMENT			
35	1	ICT CLASS(Inheritance)			
36	1	TEST			
UNIT-4					
37	1	Pointers	T1	BB & LM	223
38	1	Pointers to Objects, This Pointer	T1	BB & LM	234
39	1	Pointers to Derived Classes	T1	BB & LM	240
40	1	Programs based on Pointers in C++	T1	BB & LM	
41	1	Virtual Functions	T1	PPT	243
42	1	Pure Virtual Functions	T1	BB & LM	247
43	1	Programs based on Virtual Functions in C++	T1	BB & LM	
44	1	C++ Stream Classes-Introduction, Unformatted I/O Operations	T1	BB & LM	257

45	1	Managing Output with manipulators	T1	BB & LM	277
46	1	UNIVERSITY QUESTIONS & ASSIGNMENT			
47	1	ICT CLASS(Virtual Functions)			
48	1	TEST			
UNIT-5					
49	1	Classes for File Stream Operations, Opening and Closing a File	T1	BB & LM	286
50	1	Detecting EOF	T1	BB & LM	295
51	1	File Modes, File Pointer	T1	PPT	296
52	1	Programs based on Files in C++	T1	BB & LM	
53	1	Sequential I/O Operations	T1	BB & LM	299
54	1	Command line Arguments	T1	BB & LM	311
55	1	Class Template, Function Templates	T1	BB & LM	319
56	1	Programs based on Templates in C++	T1	BB & LM	
57	1	Programs based on Command line Arguments	T1	BB & LM	
58	1	UNIVERSITY			

		QUESTIONS & ASSIGNMENT			
59	1	ICT CLASS(Class Template, Function Templates)			
60	1	TEST			

LM-Lecture Mode BB-Black Board PPT-PowerPoint Presentation

ICT-Information Communication Technology

Sign of Faculty	**Sign of HOD**
Sign of Dean Academics	

LESSON PLAN

PROGRAMME: I- B.Sc., COMPUTER SCIENCE	**SEMESTER/ YEAR: II/2021-22**
COURSE: MATHEMATICAL FOUNDATION-II	**COURSE CODE: SCSJA21**
FACULTY 'S NAME: Mrs. S.VALLIRANI Ms. SAKTHI ANNALAKSHMI	**TOTAL HOURS: 60 Hrs**

SYLLABUS

OBJECTIVES:

This course is designed to

- To analyze the knowledge of Moments-Skewness and Kurtosis.
- To analyze the concept of sampling distributions.

COURSE OUTCOME:

CO1: Distinguish between Primary and Secondary data.
CO2: Solve the problems on Measures of distribution.
CO3: Classify and Explain the concept of Correlation and Regression.
CO4: Acquire the knowledge of Probability.
CO5: Understanding the concept of sampling distributions.

SYLLABUS

Unit I: Introduction to statistics-primary and secondary data -classification, tabulation and Diagrammatic Representation of statistical data-Bar-charts, Pie-diagrams-Graphical Representation of data-Histograms, Frequency polygon, Ogives.

Unit II: Measures of dispersion-characteristics-coefficient of dispersion-Coefficient of variation-Moments-skewness and kurtosis-Pearson's coefficient of skewness-Bowley's coefficient of Skewness-Coefficient of skewness based upon moments.

Unit III: Sample correlation-Karl Pearson's coefficient of correlation-correlation coefficient for A bivariate frequency distribution-Rank Correlation-Regression-lines of regression-Properties of regression coefficient.

Unit IV: Events and sets-sample space-concept of probability -addition and multiplication theorem on probability-conditional probability and independence of events-Baye's theorem-concept of random variable-Mathematical Expectation.

Unit V: Concept of sampling distributions-standard Error-Tests of significance based on t, Chi-square and F- distributions with respect to mean, variance.

Text Book:

Statistical Methods, S.P.Gupta, Sultan chand and sons, 2004.

Unit I : Chapters 1, 2.2, 2.2.1, 2.2.2, 2.2.3 – 2.2.5

Unit II : Chapters 7 and 8

Unit III : Chapters 9, 9.1, 9.2, 9.3, 10, 10.1, 10.2, 10.2.1, 10.2.2, 10.2.3, 10.3

Unit IV : Chapter 16

Unit V : Chapters 18.3, 18.4, 18.7.1, 18.7.2, 19

Reference Books:

1. Statistics, Dr. S.Arumugam and A.Thangapandi Issac, New Gamma Publication house, 2002.

2. Kishor S.Trivedi - Probability and statistics with reliability queuing and Computer Science Applications - Prentice Hall of India(P) Ltd., New Delhi - 1997.

3. Discrete Mathematics - Seymour Lipschutz, Marc Lars Lipson Schaum's Outlines- by, 3rd Edition., Tata McGraw Hill, Education Pvt. Ltd., New Delhi. 5th Reprint 2012.

COURSE PLAN- 2nd SEMESTER 2021-22

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
	UNIT-1				
1	1 hr	Introduction to statistics	T1	Black Board	
2	2 hrs	Primary and Secondary data	T1	Black Board	
3	1 hr	Classification, tabulation and Diagrammatic Representation of statistical data	T1	Black Board	
4	1 hr	Bar-charts, Pie-diagrams	T1	Black Board	
5	1 hr	Graphical Representation of data	T1	Black Board	
6	2 hrs	Histograms, Frequency polygon, Ogives	T1	Black Board	

7	1 hr	UNIVERSITY QUESTIONS	Previous year Question	Discussed	
8	1 hr	ICT CLASS			
9	2 hr	TEST			
	UNIT-2				
10	2 hrs	Measures of dispersion-characteristics	T1	Black Board	
11	3 hrs	Coefficient of dispersion, Coefficient of variation	T1	Black Board	
12	2 hrs	Moments -Skewness and Kurtosis	T1	Black Board	
13	3 hrs	Pearson's coefficient of skewness, Bowley's coefficient of skewness	T1	Black Board	
14	2 hrs	Coefficient of skewness based upon moments.	T1	Black Board	
15	1 hr	UNIVERSITY QUESTIONS	Previous year question	Discussed	
16	-	ICT CLASS			
17	2 hr	TEST			
	UNIT-3				
18	2 hrs	Sample Correlation-Karl Pearson's coefficient of correlation	T1	Black Board	
19	3 hrs	Correlation coefficient for a bivariate frequency distribution	T1	Black Board	
20	2 hrs	Rank correlation	T1	Black Board	
21	2 hrs	Regression-lines of Regression, Properties of regression coefficient	T1	Black Board	
22	1 hr	UNIVERSITY QUESTIONS	Previous Year Question	Discussed	
23	-	ICT CLASS			
24	2 hrs	TEST			

	UNIT-4				
25	1 hr	Events and sets- Sample space	T1	Black Board	
26	3 hrs	Concept of probability- addition and multiplications theorem on	T1	Black Board	
27	3 hrs	Conditional probability and independence of events	T1	Black Board	
28	1 hr	Bayes' theorem	T1	Black Board	
29	1 hr	Concept of random variable	T1	Black Board	
30	2 hr	Mathematical Expectation	T1	Black Board	
31	1 hr	UNIVERSITY QUESTIONS	Previous Year Question	Discussed	
32	1 hr	ICT CLASS			
33	2 hrs	TEST			
	UNIT-5				
34	1 hr	Concept of sampling distributions	T1	Black Board	
35	1 hr	Standard Error	T1	Black Board	
36	2 hrs	Test of significance based on t, Chi-square and F-distributions with respect to mean, variance.	T1	Black Board	
37	1 hr	UNIVERSITY QUESTIONS	Previous Year Question	discussed	
38	-	ICT CLASS			
39	2hrs	TEST			

Sign of HOD	Sign of Faculty
Sign of Dean Academics	

LESSON PLAN

PROGRAMME : தமிழ்	**SEMESTER/ YEAR: 2வது பருவம், 2021-22**
COURSE : இக்காலக் கவிதையும் சிறுகதையும்	**COURSE CODE: UTMJL41**
FACULTY 'S NAME : திருமதி. இர.அருள்அரசி	**TOTAL HOURS: 60**

SYLLABUS

Objective (குறிக்கோள்):

தமிழ் இலக்கிய உலகில் கவிதை மரபு காலம் தோறும் வளர்ந்து வருகிறது. மரபு கவிதை தொடங்கி இன்றைய கவிதைகள் வரை வளர்ச்சி பெற்றறுள்ள வரலாற்றையும் அதன் வழி அறியலாகும் சமுதாய வெளிப்பாடுகளையும் அறிதல்.சமூகத்தின் நடைமுறைகளை கதையாக சித்திரிக்கும் விதத்தையும், சிறுகதைகள் வழி அறியலாகும் செய்திகளை ஆய்வுக்கு உட்படுத்தலும்.

Course outcome: (பாடத்திட்ட நோக்கம்)

கூறு: 1

தமிழ் இலக்கிய வடிவங்களில், நெடுங்கால வரலாற்றையும், நீண்டநெடிய பாரம்பரியத்தையும் பரந்து விரிந்த களங்களையும் அவற்றின் பெருமையையும் மரபுக்கவிதை வழி அறிதல்.

கூறு: 2

இலக்கண கட்டுப்பாடுகளுக்கு உட்பட்டதும் உட்படாததும், காட்சி அலங்கார வார்த்தையின்றியும் உள்ளதை உள்ளபடியே எளிய தமிழில் கருத்தெடுத்துரைக்கும் புதுக்கவிதை (மற்றும்) ஹைக்கூ கவிதைகளை இப்பகுதி எடுத்துரைக்கிறது.

கூறு: 3

வாழ்க்கையில் ஒரு சிறு காட்சியோ நிகழ்ச்சியோ சிறுகதையாக உருவெடுக்கிறது. அவ்வாறான சிறுகதைக்குப் பின்னே உள்ள படைப்பாளரின் கலைஆற்றல், கற்பனைத்திறன், சொல்லாட்சி அவர் மறைமுகமாகக் கூறவரும் செய்தி என அனைத்தையும் ஒருங்கே எடுத்துக்கூறுவதாக இப்பகுதி அமைகிறது.

கூறு: 4

மொழிக்கு முதலிலும் இறுதியிலும் தோன்றும் எழுத்துக்கள் அதை சார்ந்துவரும் சார்பெழுத்துக்கள், வல்லினம் மிகும், மிகா இடங்களைப் பற்றி எளிமையாக விளக்குகிறது. அதன் வழி மொழியில் ஏற்படும் பிறமொழி கலப்பு,ஒருமை – பன்மை வேறுபாடு, ஒலி வேறுபாடு பற்றி மாணவியர் அறிய எளிமையாகவும், தெளிவாகவும் எடுத்தியம்புகிறது.

கூறு: 5

மரபு, புது கவிதைகள் (மற்றும்) சிறுகதையின் தோற்றம் மற்றும் வளர்ச்சியை முழுமையாகவும் விரிவாகவும் எடுத்துரைக்கிறது. அதன் வழி மாணவியரின் கவிதை, கதை எழுதும் ஆற்றலை ஊக்குவித்தல்.

பாடத்திட்டம்

கூறு :1 (அ) மரபுக்கவிதை

1. முரசு - பாரதியார்
2. பாதயாத்திரை - பாரதிதாசன்
3. ஒற்றுமையே உயிர்நிலை - கவிமணி
4. தமிழ் வழி அரசு - நாமக்கல் கவிஞர்
5. பாரதப் பூச்செண்டு - கண்ணதாசன்
6. தமிழில் பெயரிடுங்கள் - கவிஞர் சுரதா

திரையிசைப் பாடல்கள்

7. ஏட்டில் படித்ததோடு இருந்துவிடாதே - பட்டுக்கோட்டை கல்யாணசுந்தரம்
8. கூவுங்கள் சேவல்களே - வாலி

(ஆ) நாட்டுப்புறப் பாடல்கள்

9. காதல் பாடல்கள் - தூது
10. திருமணப் பாடல்கள் - 1. திருமணம், 2. பெண் அழைப்பு, 3. சீதனம், 4. மங்கள வாழ்த்து, 5. வாழ்த்து,

கூறு : 2 புதுக்கவிதைகள் மற்றும் ஐக்கூ கவிதைகள்

1. பொங்கல் - ந.பிச்சமூர்த்தி
2. வெற்றி முகம் - ஈரோடு தமிழன்பன்
3. பாரம் - அப்துல் ரகுமான்
4. தந்தைக்கு ஒரு தாலாட்டு - மு.மேத்தா
5. அப்துல் கலாமின் வீணை - சிற்பி
6. நான் மரணத்தைப் பற்றி சிந்திக்கிறேன் - நா.காமராசன்
7. புத்தகப் புராணம் - வைரமுத்து
8. சீற்றம் வராத சிறுத்தைகள் - கந்தர்வன்
9. இயல்பாய் நடந்தேறியது - சண்முகம் சரவணன்
10. நம்பிக்கை - பா.விஜய்
11. ஏனிந்த வித்தியாசங்கள் - மல்லிகை
12. தேவைக்குப் பயன்படுத்து - மருத்துவர் ச.பாஸ்கரன்
13. ஐக்கூ கவிதைகள் -11 கவிதைகள்

கூறு : 3 சிறுகதைகள்

1. ஆத்தங்கரை பிள்ளையார் - புதுமைப் பித்தன்
2. அன்பளிப்பு – கு.அழகிரி சாமி
3. தனிமை - இராஜம் கிருஷ்ணன்
4. வாகனம் - அம்பை
5. புது வாத்தியார் - தனுஷ் கோடி ராமசாமி
6. பூமனச்சுனை - மேலாண்மை பொன்னுசாமி
7. கல்லூரிக்கு காதல் - முனைவர் வெ.இறையன்பு
8. கிணறு - பாரதிகிருஷ்ணக்குமார்
9. அம்மாவின் டைரி - சேதுமணி
10. தேவை அன்பு மட்டும் - வைகைச் செல்வி

கூறு : 4 (அ) இலக்கணம்

முதல் எழுத்துக்கள் - சார்பெழுத்துக்கள், வல்லெழுத்து மிகும் இடங்கள், வல்லெழுத்து மிகா இடங்கள், மொழி முதல் எழுத்துக்கள், மொழி இறுதி எழுத்துக்கள் புதுக்கவிதையில் படிமம் குறியீடு.

(ஆ) மரபுப் பிழை நீக்குதல்

பிறமொழிச் சொற்களை நீக்குதல், பிழையற்ற தொடரைத் தேர்ந்தெடுத்தால், ஒருமை - பன்மை, ஒரெழுத்து ஒரு மொழிக்குரிய பொருள், ஒலி வேறுபாடுகளும் பொருள் வேறுபாடுகளும் பொருத்தமான பொருள் - பொருத்தமான தொடர்.

கூறு : 5 (அ) இலக்கிய வரலாறு

1. இருபதாம் நூற்றாண்டின் மரபுக்கவிதை
2. புதுக்கவிதையின் தோற்றமும் வளர்ச்சியும்
3. சிறுகதையின் தோற்றமும் வளர்ச்சியும்

(ஆ) படைப்பாற்றல்

1. கவிதை எழுதுதல்.

Text book:

1. இக்காலக் கவிதையும் சிறுகதையும்

Mangayarkarasi College of Arts & Science for Women, Paravai.

(Affiliated to Madurai Kamaraj University)

ISO 9001:2015 Certified Institution, Re- Accredited by NAAC with 'B' grade

COURSE PLAN- 4th SEMESTER 2021-22

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
		கூறு: 1			
1	1	**(அ) மரபுக்கவிதை** 1. முரசு - பாரதியார்	T1	LECTURE METHOD	5
2	1	2. பாதயாத்திரை - பாரதிதாசன்	T1	LECTURE METHOD	7
3	1	3. ஒற்றுமையே உயிர் நிலை - கவிமணி	T1	LECTURE METHOD	9
4	1	4. தமிழ்வழி அரசு - நாமக்கல் கவிஞர்		LECTURE METHOD	11
5	1	5. பாரதப் பூச்செண்டு - கண்ணதாசன்	T1	LECTURE METHOD	13
6	2	6. தமிழில் பெயரிடுங்கள் - கவிஞர் சுரதா	T1	LECTURE METHOD	14
7	2	**திரையிசைப் பாடல்கள்** 7. ஏட்டில் படித்ததோடு இருந்துவிடாதே - பட்டுக்கோட்டை கல்யாணசுந்தரம் 8. கூவுங்கள் சேவல்களே – வாலி		LECTURE METHOD WT MOVIE SONG VIDEO	15 17
8	1	**(ஆ) நாட்டுப்புறப் பாடல்கள்** 9. காதல் பாடல்கள் - தூது		LECTURE METHOD	18
9	1	10. திருமணப் பாடல்கள் - திருமணம், பெண் அழைப்பு, சீதனம், மங்கள வாழ்த்து, வாழ்த்து.		LECTURE METHOD AND நாட்டுப்புறப் பாடல் VIDEO	19 20 21 22 23
10	1	UNIVERSITY QUESTIONS			
11	1	ICT CLASS			
12	1	TEST			
		கூறு: 2			
13	2	**புதுக்கவிதைகள் மற்றும் ஐக்கூ கவிதைகள்** 11. பொங்கல் - ந.பிச்சமூர்த்தி 12. வெற்றி முகம் - ஈரோடு தமிழன்பன்	T1	LECTURE METHOD	25 27
14	1	13. பாரம் - அப்துல் ரகுமான்	T1	LECTURE METHOD	29

15	1	14. தந்தைக்கு ஒரு தாலாட்டு - மு.மேத்தா	T1	LECTURE METHOD	34
16	2	15. அப்துல் கலாமின் வீணை - சிற்பி 16. நான் மரணத்தைப் பற்றி சிந்திக்கிறேன் - நா.காமராசன்	T1	LECTURE METHOD	42 45
17	2	17. புத்தகப் புராணம் - வைரமுத்து 18. சீற்றம் வராத சிறுத்தைகள் - கந்தர்வன்	T1	LECTURE METHOD	48 53
18	2	19. இயல்பாய் நடந்தேறியது - சண்முகம் சரவணன் 20. நம்பிக்கை – பா.விஜய்	T1	LECTURE METHOD	57 58
19	1	21. ஏனிந்த வித்தியாசங்கள் - மல்லிகை	T1	LECTURE METHOD	61
20	1	22. தேவைக்குப் பயன்படுத்து - மருத்துவர் ச.பாஸ்கரன்	T1	LECTURE METHOD	62
21	1	23. ஐக்கூ கவிதைகள் - 11 கவிதைகள்	T1	LECTURE METHOD WT GROUP DISCUSSION	64
22	1	UNIVERSITY QUESTIONS			
23	1	ICT CLASS			
24	1	TEST			
		கூறு:3			
25	1	**சிறுகதைகள்** 1.ஆத்தங்கரை பிள்ளையார் - புதுமைப்பித்தன்	T1	LECTURE METHOD	66
26	1	2. அன்பளிப்பு - கு.அழகிரிசாமி	T1	LECTURE METHOD	73
27	1	3. தனிமை - இராஜம் கிருஷ்ணன்	T1	LECTURE METHOD	93
28	1	4. வாகனம் - அம்பை	T1	LECTURE METHOD	102
29	1	5. புது வாத்தியார் - தனுஷ்கோடி ராமசாமி	T1	LECTURE METHOD	111
30	1	6. பூமனச்சுனை - மேலாண்மை பொன்னுசாமி	T1	LECTURE METHOD	118
31	1	7. கல்லூரிக் காதல் - முனைவர் வெ.இறையன்பு	T1	LECTURE METHOD	128
32	1	8. கிணறு - பாரதி கிருஷ்ணக்குமார்	T1	LECTURE METHOD	137
33	1	9. அம்மாவின் டைரி - சேதுமணி	T1	LECTURE METHOD	143
34	1	10.தேவை அன்பு மட்டும் - வைகைச் செல்வி	T1	LECTURE METHOD	151
35	1	UNIVERSITY QUESTIONS			
36	1	ICT CLASS			
37	1	TEST			
		கூறு : 4			
35	1	**(அ) இலக்கணம்** முதல் எழுத்துக்கள் - சார்பெழுத்துக்கள்	T1	LECTURE METHOD WT VIDEO	178+163
36	1	வல்லெழுத்து மிகும் இடங்கள்	T1	LECTURE METHOD	170

		வல்லெழுத்து மிகா இடங்கள்		WT VIDEO	174
37	1	மொழி முதல் எழுத்துக்கள் , மொழி இறுதி எழுத்துக்கள்	T1	LECTURE METHOD WT VIDEO	182 184
38	1	புதுக்கவிதையில் படிமம் புதுக்கவிதையில் குறீயிடு.	T1	LECTURE METHOD WT VIDEO	186 190
39	1	**(ஆ) மரபுப் பிழை நீக்குதல்** பிறமொழிச் சொற்களை நீக்குதல்	T1	LECTURE METHOD WT VIDEO	194 201
40	1	பிழையற்ற தொடரைத் தேர்ந்தெடுத்தால் ஒருமை - பன்மை	T1	LECTURE METHOD WT VIDEO	210 216
41	1	ஒரெழுத்து ஒரு மொழிக்குரிய பொருள்	T1	LECTURE METHOD WT VIDEO	219
42	1	ஒலி வேறுபாடுகளும் பொருள் வேறுபாடுகளும் பொருத்தமான பொருள் - பொருத்தமான தொடர்.		LECTURE METHOD WT VIDEO	222 227
43	2	UNIVERSITY QUESTIONS			
44	1	ICT CLASS			
45	1	TEST			
		கூறு : 5			
46	2	**(அ) இலக்கிய வரலாறு** 1. இருபதாம் நூற்றாண்டின் மரபுக்கவிதை	T1	LECTURE METHOD WT VIDEO	230
47	2	2. புதுக்கவிதையின் தோற்றமும் வளர்ச்சியும்	T1	LECTURE METHOD WT VIDEO	235
48	2	3. சிறுகதையின் தோற்றமும் வளர்ச்சியும்	T1	LECTURE METHOD WT VIDEO	239
49	2	**(ஆ) படைப்பாற்றல்** 1. கவிதை எழுதுதல்.	T1	LECTURE METHOD AND GROUP DISCUSSION	
50	2	UNIVERSITY QUESTIONS			
51	1	ICT CLASS			
52	1	TEST			

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Sign of Dean Academics	


MCW

LESSON PLAN

PROGRAMME:ENGLISH	**SEMESTER/ YEAR: IV/ 2021-22**
COURSE: PART-II CS A,B (COMMUNICATIVE ENGLISH)	**COURSE CODE:UENJE41**
FACULTY 'S NAME:Mrs.S.Geetha **Mrs.Wazir Raliya**	**TOTAL HOURS: 6/ WEEK**

Objectives:

1. Help the students to understand the various aspects of literature.

COURSE OUTCOME:

CO1: To analyze and Learn moral values in drama

CO2: Enable the students to learn the basic skills of listening, speaking, reading, and writing the language proficiently.

CO3: analyse, understand and appreciate prose writings

CO4: make the students proficient communicators in English

CO5: Enable students to identify the prominent methods and modes of Communication.

ENGLISH FOR COMMUNICATION SKILLS(PART-II)

COURSE CODE:

UENJE41

Unit I:Drama

Shakespeare: merchant of Venice **Unit**

II: Word Power

1. Vocabulary
2. Choice of words
3. Analogy questions

Unit III: Comprehension Skills

Comprehension Writing for Unknown Passage

1. Prose
2. One word substitution
3. Homonyms

Unit-IV: Art of Public Speaking

Welcome Address, Presidential address, Key note or Chief Guest's address, Introducing a Speaker, Vote of thanks

Unit-V: Composition

1. Telephone Communication
2. E-mail Writing
3. Group Discussion **Books Recommended**:

Merchant of Venice, Mahamm Publisher, Chennai-78

English for Success, G.RadhaKrishna Pillai, Emerald Publishers

COURSE PLAN- 4th SEMESTER 2021-22

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
	UNIT-1				
1	2	Shakespeare: merchant of Venice	T1	Story Telling/Critical Thinking	1- 26
2	1	UNIVERSITY QUESTIONS			
3	1	ICT CLASS			
4		TEST			
	UNIT-2				
5	2	Vocabulary	T1	Activity Based	26- 30

6	2	Choice of words	T1	Interactive session	30 - 34
7	2	Analogy questions	T1	Innovative /Activity Based	34- 41
8	1	UNIVERSITY QUESTIONS			
9	1	ICT CLASS			
10	1	TEST			
	UNIT-3				
11	2	Prose	T1	Line by line explanations	41- 45
12	1	One word substitution		Chalk and Talk/peer teaching	45- 49
13	1	Homonyms		Chalk and Talk	49 - 53
14	1	UNIVERSITY QUESTIONS			
15	2	ICT CLASS			
16	1	TEST			
	UNIT-4				
17	5	Welcome Address, Presidential address, Key note or Chief Guest's address, Introducing a Speaker, Vote of thanks	T1	Explaining Format/Innovative teaching method	53- 69
18	2	UNIVERSITY QUESTIONS			
19	1	ICT CLASS			
20	1	TEST			
	UNIT-5				
21	2	Telephone Communication	T1	Peer teaching	70- 76
22	2	E-mail Writing	T1	Practising session	77- 80
23	2	Group Discussion	T1	Peer teaching	81- 87
24	2	UNIVERSITY QUESTIONS			
25	1	ICT CLASS			
26	2	TEST			

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Sign of Dean Academics	

LESSON PLAN

PROGRAMME: II B.Sc Computer science B	**SEMESTER/ YEAR: EVEN /2021-2022**
COURSE: NUMERICAL METHODS	**COURSE CODE: SCSJA41**
FACULTY 'S NAME:Mrs B. VANITHA, Mrs. S. Jansi Rani	**TOTAL HOURS: 60 Hrs**

SYLLABUS

OBJECTIVES:

1. To know algebraic, trancedental and simultaneous equations.
2. To study about finite differences, interpolation, attributes, etc.

COURSE OUTCOME:

CO1: Identify the various methods of solving Algebric and Transcendental equations.

CO2: Calculate and finding the solution by using Gauss elimination & Jordan method.

CO3: Classify the Divided differences, Newton's divided difference formula and Inverse Interpolation.

CO4: Compute the values of the derivatives at some point using numerical differentiation and Derivatives using Newton's formula.

CO5: Derive the Taylor series method-Picard's method Euler's method

Unit I:

Algebraic and Transcendental Equations: Errors in numerical computation-Iteration method-Bisection method-Regula-Falsi method-Newton-Raphson method-Horner's method.

Unit II:

Simultaneous Equations: Introduction-Simultaneous equations-Back substitution-Gauss Elimination method-Gauss –Jordan Elimination method-Calculation of Inverse of a matrix- Crout's method-Iterative methods-Gauss- Jacobi Iteration method-Gauss seidal Iteration method-Newton Raphson's method for simultaneous equations.

Unit III:

Interpolation & Introduction: Newton's interpolation Formulae-Central difference Interpolation formulae-Gauss forward, Gauss backward, Lagrange's interpolation formulae- Divided differences-Newton's divided difference formula-Inverse Interpolation.

Unit IV:

Numerical Differentiation and Integration: Introduction-Derivates using Newton's forward difference formula-Derivates using Newton's backward difference formula- Numerical Integration-Newton-cotes quadrature formula-Trapezoidal Rule-Simpson's one third rule-Simpson's 3/8 th rule.

Unit V:

Numerical Solution of Ordinary Differential Equations: Introduction-Taylor series method-Picard's method-Euler's method-Runge-kutta method of second, third, fouth order- Predictor & corrector methods-Mile's method.

Text Book:

Numerical Methods, Second Edition, S.Arumugam, A.Thangapandi Issac,A.Somasundaram, SCITECH publications, 2009.

Unit I : Chapter-3

Unit II : Chapter-4 (excluding Relation method and its related problems)

Unit III:Chapter-7 (Sections: 7.0, 7.1, 7.2((i), (ii) and related problems 7.3,7.4,7.5,7.6)

Unit IV:Chapter-8 (Sections: 8.0,8.1,8.2 related problems, 8.5 (excluding Weddles rule, Booles rule, Romberg's method and related problems)

Unit V:Chapter-10 (Sections : 10.0,10.1,10.2,10.3(excluding modified Euler's method & its related problems) 10.4,10.5,10.6

COURSE PLAN- IV SEMESTER 2021-2022

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO.
	UNIT-1				
1	1 hr	Introduction about Algebraic & Transcendal Equations	T1	BLACK BOARD	79 – 80
2	2 hrs	Iteration & BisectionMethod	T1	BLACK BOARD	80 – 90
4	1 hr	Regula Falsi Method	T1	BLACK BOARD	90 – 97
5	2 hrs	Newton-Rapson Method	T1	BLACK BOARD	97 – 105
6	1 hr	Horner's Method	T1	BLACK BOARD	107 – 111
7	1hr	UNIVERSITY QUESTIONS	Previous year Question Papers	Discussion	
8	1hr	ICT CLASS	PPT	Newton-Rapson Method	
9	1 hr	TEST			
	UNIT-2				
10	1 hr	Introduction of Simultaneous Equations	T1	BLACK BOARD	112 – 113
11	1 hr	Back Substitution Method	T1	BLACK BOARD	113 – 117
12	2 hrs	Guass & Guass Jordan Elimination Method	T1	BLACK BOARD	117 – 123
13	2 hrs	Crout's Method & Iterative Method	T1	BLACK BOARD	124 – 132
14	2 hrs	Guass Jacobi & Guass Seidal Iteration Method	T1	BLACK BOARD	133 – 148

15	1hr	Newton Rapson's Method	T1	BLACK BOARD	152_a – 152_f
16	1hr	UNIVERSITY QUESTIONS	Previous year Question Papers	Discussion	
17	1hr	ICT CLASS	PPT	Crout's Method	
18	1 hr	TEST			
	UNIT-3				
19	1 hr	Introduction about Interpolation	T1	BLACK BOARD	202
20	2 hrs	Newton's Interpolation Method	T1	BLACK BOARD	203 – 211
21	1 hr	Central Difference Interpolation	T1	BLACK BOARD	215 -217
22	2 hrs	Guass Forward & Guass Backward Interpolation	T1	BLACK BOARD	217 – 236
23	2 hrs	Lagrange's Interpolation	T1	BLACK BOARD	240 – 243
24	2 hrs	Newton's Divided Difference	T1	BLACK BOARD	246 – 254
25	1 hr	Inverse Interpolation	T1	BLACK BOARD	255 – 258
26	1hr	UNIVERSITY QUESTIONS	Previous year Question Papers	Discussion	
27	1hr	ICT CLASS	PPT	Lagrange's Interpolation	
28	1 hr	TEST			
	UNIT-4				
29	1 hr	Introduction about Numerical Differentiation	T1	BLACK BOARD	260 – 263
30	3 hrs	Derivatives by using Newton's Forward & Backward difference formula	T1	BLACK BOARD	263 – 274
31	2 hrs	Introduction about Numerical Integration	T1	BLACK BOARD	279 – 285
32	2 hrs	Newton-cotes quadrature &	T1	BLACK BOARD	286 – 289

		Trapezoidal rule			
33	1 hr	Simpson's one third & 3/8 rule	T1	BLACK BOARD	290 – 298
34	1hr	UNIVERSITY QUESTIONS	Previous year Question Papers	Discussion	
35	1hr	ICT CLASS	PPT	Newton-cotes quadrature	
36	1hr	TEST			
	UNIT-5				
37	1 hr	Introduction about Numerical solution of Differential Equations	T1	BLACK BOARD	325
38	1 hr	Taylor series Method	T1	BLACK BOARD	326 – 330
39	2 hrs	Picard's Method & Euler's Method	T1	BLACK BOARD	331 – 341
40	2 hrs	Runge-Kutta method of second & third order method	T1	BLACK BOARD	343-352
41	1 hr	Predictor & Corrector Methods	T1	BLACK BOARD	353 – 354
42	1 hr	Mile's Method	T1	BLACK BOARD	355 - 360
43	1hr	UNIVERSITY QUESTIONS	Previous year Question Papers	Discussion	
44	1hr	ICT CLASS	PPT	Taylor series Method	
45	2 hrs	TEST			

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LESSON PLAN

PROGRAMME: III B.CS CS B	**SEMESTER/ YEAR: IV 2021-2022**
COURSE: Java Programming	**COURSE CODE: SCSJS41**
FACULTY 'S NAME:Ms. P.UMADEVI, Mrs. G.Nivethitha	**TOTAL HOURS : 75Hrs**

SYLLABUS

Objectives:

Programming is about writing the instructions which a computer follows to enable it to store knowledge, process knowledge, and communicate knowledge with the outside world.

Cos	Course Outcome
CO1	Write Java application programs using OOP principles and proper program structuring.
CO2	Develop Java program using packages, inheritance and interface.

CO3	Create Multithreaded programs.
CO4	Write Java programs to implement error handling techniques using exception handling and develop programs using class and inputs from keyboard.
CO5	Develop graphical User Interface using AWT. Demonstrate event handling mechanism.

Java Programming

Unit I:

FUNDAMENTALS OF OBJECT – ORIENTED PROGRAMMING: Introduction, Object Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Applications of OOP, Java features: OVERVIEW OF JAVA LANGUAGE: Introduction, Simple Java program structure, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments. CONSTANTS, VARIABLES & **DATA TYPES**: Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Symbolic Constants, Type casting, Getting Value of Variables, Standard Default values; OPERATORS & EXPRESSIONS.

Unit II:

DECISION MAKING & BRANCHING: Introduction, Decision making with if statement,

Simple if statement, if. Else statement, Nesting of if. else statements, the else if ladder, the switch statement, the conditional operator. DECISION MAKING & LOOPING: Introduction, The While statement, the do-while statement, the for statement, Jumps in loops. CLASSES, OBJECTS & METHODS: Introduction, Defining a class, Adding variables, Adding methods, Creating objects, Accessing class members, Constructors, Method overloading, Static members, Nesting of methods;

Unit III:

INHERITANCE: Extending a class, Overloading methods, Final variables and methods, Final classes, Finalize methods, Abstract methods and classes; ARRAYS, STRINGS ANDVECTORS: Arrays, One-dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Vectors, Wrapper classes INTERFACES: MULTIPLE

INHERITANCE: Introduction, Defining interfaces, Extending interfaces, Implementing interfaces, Assessing interface variables;

Unit IV:

MULTITHREADED PROGRAMMING: Introduction, Creating Threads, Extending the Threads, Stopping and Blocking a Thread, Lifecycle of a Thread, Using Thread Methods, Thread Exceptions, Thread Priority, Synchronization, Implementing the 'Runnable' Interface. MANAGING ERRORS AND EXCEPTIONS: Types of errors : Compile-time errors, Runtime errors, Exceptions, Exception handling, Multiple Catch Statements, Using finally statement.

Unit V:

PACKAGES: Introduction, Java API Packages, Using System Packages, Naming conventions, Creating Packages, Accessing a Package, using a Package. MANAGING INPUT/OUTPUT FILES IN JAVA: Introduction, Concept of Streams, Stream classes, Byte Stream Classes, Input Stream Classes, Output Stream Classes, Character Stream classes: Reader stream classes, Writer Stream classes, Using Streams, Reading and writing files.

Text Book

Programming with JAVA, A Primer, E.Balagurusamy, 5th Edition, McGraw-Hill Company, 2015

Unit I : Chapters 1 - 5

Unit II : Chapters 6 ,7 and 8.1-8.10

Unit III : Chapter 8.11-8.18, Chapters 9 and 10
Unit IV : Chapter 12 and 13
Unit V : Chapter 14,11.1-11.7 and 16

Reference Books:

1. Programming in Java, Sachin Malhotra, Oxford University Press
2. Programming with Java, John R. Hubbard, Second Edition, Schaum's outline Series, Tata McGraw-Hill Company.
3. Java TM: How to Program, Deitel & Deitel, PHI, 2007

4. Java 2- The Complete Reference, Herbert Scheldt , 5th Edition, McGraw Hill Education (India) Private Limited,2002

COURSE PLAN- IV SEMESTER 2021-2022

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGENO
	UNIT-1				
1	1	Java History and Java Features	T1	LM / BM	10
2	1	Difference between C++ and java	T1	LM / BM	15
3	1	Java and Internet	T1	LM / BM	16
4	1	Java and WWW	T1	LM / BB	17
5	1	Hardware and Software Requirements	T1	LM / BB	19
6	1	Java Environment	T1	LM / BB	20
7	1	Program Structure of Java Program	T1	LM / BB	28
8	1	Java Token and Variables, JVM	T1	LM / BB	29-40
9	1	Data types	T1	LM / BB	49
10	1	Scope of Variables	T1	LM / BB	53
11	1	Type Casting	T1	LM / BB	55
12	1	Operators and Expression	T1	PPT	62-80
13	1	Revision			
14	1	ICT CLASS			
15	1	Test/Assignment			
	UNIT-2				

16	1	Decision making and Branching	T1	LM / BB	81-95
17	1	Decision making and Looping	T1	LM / BB	103-115
18	1	Decision making and Looping	T1	LM / BB	115-117
19	1	Introduction of classes	T1	LM / BB	127
20	1	Introduction of Objects	T1	LM / BB	130
21	1	Examples based on classes and Objects	T1	LM / BB	126
22	1	Methods on Java	T1	LM / BB	124
23	1	Examples based on Methods in Java	T1	PPT	125
24	1	Constructors	T1	LM / BB	133
25	1	Method Overloading	T1	LM / BB	136
26	1	Examples based on Methods Overloading	T1	LM / BB	136
27	1	Static members, Nesting of Methods	T1	LM / BB	137-139
28	1	Revision	T1		
29	1	ICT CLASS	T1		
30	1	Test /Assignment	T1		
	UNIT-3				
31	1	Inheritance	T1	LM / BB	139
32	1	Examples based on Inheritance in Java	T1	LM / BB	140

33	1	Abstract Methods and Classes	T1	LM / BB	144
34	1	Introduction to Arrays	T1	LM / BB	153
35	1	Types of Arrays	T1	LM / BB	153
36	1	String using Arrays	T1	PPT	161
37	1	Interfaces	T1	LM / BB	180
38	1	Examples Based on Interfaces	T1	LM / BB	181
39	1	Extending Interfaces	T1	LM / BB	182
40	1	Implementing Interfaces	T1	LM / BB	182
41	1	Revision	T1		
42	1	ICT CLASS	T1		
43	1	Test / Assignment	T1		
	UNIT-4				
44	1	Introduction about Multithreading	T1	Video Class	203
45	2	Creating Threads	T1	LM / BB	205
46	2	Life Cycle of a Thread	T1	LM / BB	212
47	2	Using Thread Methods	T1	LM / BB	214
48	2	Thread Priority	T1	LM / BB	217
49	1	Introduction to Managing Errors	T1	LM / BB	234
50	1	Types of Errors	T1	LM / BB	234

51	2	Exception Handling	T1	PPT	236
52	1	Multiple Catch Statements and Finally	T1	LM / BB	241
53	1	Throwing Our Own Exceptions	T1	LM / BB	243
54	1	Applet Life Cycle	T1	LM / BB	254
55	1	Creating Executable Applet	T1	LM / BB	256
56	1	Revision			
57	1	ICT CLASS			
58	1	Test/Assignment			
	UNIT-V				
59	1	Packages	T1	LM / BB	190
60	1	API Packages in Java	T1	LM / BB	191
61	2	System Packages	T1	LM / BB	191
62		Using System Packages		LM / BB	192
63	1	Creating Packages	T1	PPT	193
64	1	Accessing Packages	T1	LM / BB	194
65	2	Adding Class to Packages	T1	LM / BB	197
66	1	Managing Input / Output	T1	LM / BB	294
67	1	Stream Classes	T1	LM / BB	297
68	2	Discussion about files	T1	LM / BB	287
69	1	Files in Java	T1	LM / BB	304

70	1	Reading Characters	T1	LM / BB	306
71	2	Writing Characters	T1	LM / BB	308
72	2	Random Accessing Files	T1	LM / BB	317
73	1	Revision			
74	1	ICT CLASS			
75	1	Test/Assignment			

LM – Lecturer mode

BB - Blackboard

PPT - Power Point

Sign of Faculty:	Sign of HOD:
Sign of Dean Academics :	

LESSON PLAN

PROGRAMME: II BSC CS A & B	**SEMESTER/ YEAR: IV /2021-2022**
COURSE: SYSTEM SOFTWARE	**COURSE CODE: SCSGC42**
FACULTY'S NAME: MrsB.MEENAKSHI **Ms.A.SOWMIYA**	**TOTAL HOURS: 60**

LESSON PLAN

Objectives:

This subject is an introduction to the design and implementation of various types of system software. A central theme of the books is the relationship between machine architecture and system software. There are also similarities between software for different systems. The third edition includes all new examples of machine architecture and software**.**

COURSE OUT COME:

CO1:To Know the difference between Operating System Software and Application System Software.

CO2: Describe the "boot" Process. It helps the students to know about internal Transmission

CO3: Identify the primary functions of an Operating System.

CO4: Describes Commonly Used Operating System.

CO5: Use Utility Programs.

SYSTEM SOFTWARE

(4 Hours – 4 Credits)

Unit I:

Introduction- System Software and Machine Architecture- Simplified Instructional Computer (SIC)- SIC Machine Architecture- SIC/XE Machine Architecture- Traditional (CISC) Machines- VAX Architecture- Pentium Pro Architecture – RISC Machines – Ultra SPARC Architecture- Power PC Architecture- Cray T3E Architecture.

Unit II:

Assemblers- Basic Assembler Functions- A simple SIC Assembler- Assembler Algorithm and Data Structures. Machine-Dependent Assembler features-Instruction formats and addressing modes. Machine-Independent Assembler features-Literals-Expressions-Program blocks. Assembler Design options--One pass Assemblers- Multi-pass Assemblers.

Unit III:

Loaders & Linkers: Basic Loader Functions- Design of Absolute Loader- Simple Bootstrap Loader-Machine Dependent Loader features-Relocation-Program linking-Algorithm and Data structures for a Linking loader. Loader Design options.

Unit IV:

Compilers - Basic compiler Functions – Grammars - Lexical Analysis – Syntactic Analysis- Code Generation-Compiler Design options.

Unit V:

Other System Software: Text Editors- Interactive Debugging Systems.

TEXT BOOK

System Software – An Introduction to Systems Programming- Leland L. Beck, 3rd Edition, Pearson Education Asia, 2000.

Unit I : Chapter 1

Unit II : Chapter 2

Unit III : Chapter 3 (3.1, 3.2, 3.4)

Unit IV : Chapter 5 (5.1, 5.4)

Unit V : Chapter 7 (7.2 & 7.3)

Reference Books

1. D. M. Dhamdhere, Systems Programming and Operating Systems , Second Revised Edition, Tata McGraw-Hill, 1999.

2. John J. Donovan Systems Programming , Tata McGraw-Hill Edition, 1992.

3. System Software, Santana Chattopadhyay, PHI Learning Private Limited, Delhi, Fifth printing, June 2013.

COURSE PLAN-IV SEMESTER 2021-2022

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
UNIT I					
1	1	Introduction to System Software	T1	BB & LM	1
2	1	System Software and Machine Architecture	T1	BB & LM	3
3	1	The Simplified Instructional Computer(SIC)	T1	BB & LM	4
4	1	SIC Machine Atchitecture	T1	BB & LM	5
5	1	SIC- Memory, Registers, DataFormats	T1	BB & LM	5
6	1	SIC – Instruction Formats, Addressing Modes	T1	BB & LM	6
7	1	Instruction set	T1	BB & LM	7

8	1	SIC/XE Machine Architecture	T1	BB & LM	7
9	1	SIC/XE-Memory, Registers, Data Formats	T1	BB & LM	7
10	1	SIC/XE-Instruction Formats,Addressing Modes,Programming Exaples	T1	BB & LM	14
11	1	Traditional (CISC) Machines	T1	BB & LM	23
12	1	VAX Architecture	T1	BB & LM	23
13	1	Pentium Pro Architecture	T1	BB & LM	27
14	1	RISC Machines – Ultra SPARC Architecture,POWER PC Architecture, Cray T3E	T1	BB & LM	31-39
15	1	ASSIGNMENT /TEST Unit 1	T1		
UNIT2					
16	1	Assemblers- Basic Assembler Functions- A simple SIC Assembler-	T1	BB & LM	46-48
17	1	Assembler Algorithm and Data Structures.	T1	BB & LM	52
18	1	Machine-Dependent Assembler features-Instruction formats and addressing modes, Program Relocation		BB & LM	54-63
19	1	Machine Independent Assembler features	T1	BB & LM	67
20	1	Literals- Expressions-Program blocks.	T1	BB & LM	68-79
21	1	Assembler Design options Pass Assemblers- Multi-pass Assemblers	T1	GD	96-103

22	1	ASSIGNMENT /TEST Unit 2			
		UNIT-3			
23	1	Loaders & Linkers: Basic Loade Functions	T1	ICT	130
24	1	Loaders & Linkers: Basic Loader Functions	T1	ICT	130
25	1	Design of Absolute Loader	T1	BB & LM	131
26	1	Simple Bootstrap Loader	T1	BB & LM	132
27	1	Machine Dependent Loader feature	T1	BB & LM	135
28	I	Relocation	T1	BB & LM	136
29	1	Program linking	T1	BB & LM	141
30	1	Algorithm and Data Structures for a Linking Loader	T1	BB & LM	148
31		Loader Design Options	T1	BB & LM	158
32	1	Linkage Editors	T1	BB & LM	159
33	I	Dynamic Linking	T1	BB & LM	162
34	1	Dynamic Linking	T1	BB & LM	162
35	1	Bootstrap Loaders	T1	BB & LM	165
36	1	Bootstrap Loaders	T1	BB & LM	165
37	1	ASSIGNMENT/TEST Unit 3			
		UNIT-4			
38	1	Basic Compiler Functions	T1	BB & LM	233
39	1	Basic Compiler Functions	T1	BB & LM	233
40	1	Grammars	T1	BB & LM	235-

					238
41	1	Grammars	T1	BB & LM	235-238
42	1	Lexical Analysis	T1	BB & LM	239
43	1	Lexical Analysis		BB & LM	239
44	1	Modeling Scanners as Finate Automata	T1	PPT	248
45	1	Syntactic Analysis	T1	BB & LM	249
46	1	Syntactic Analysis	T1	BB & LM	249-257
47	1	Recursive -Descent Parsing	T1	BB & LM	249-257
48	1	Code Generation	T1	BB & LM	258
49	1	Compiler Design Options	T1	BB & LM	296
50	1	Division Into Passes , Interpreters , pcode Compilers , Compilers – Compilers	T1	BB & LM	297-301
51	1	ASSIGNMENT/TEST Unit 3	T1	-	-
UNIT 5					
52	1	Other system Software-Basic concept of DBMs,Levels of Data Description, Use of DBMS	T1	PPT	393-401
53	1	Text Editors-Overview of Editing Process, User Interface, Editor Structure	T1	BB & LM	405-409

54	1	Interactive Debugging Systems	T1	BB & LM	414
55	1	Debugging Funcions and Capabilities	T1		414
56	1	Relationship with Other Parts of the system	T1	BB & LM	418
57	1	Relationship with Other Parts of the system	T1	BB & LM	418
58	1	User Interface Criteria	T1	BB & LM	418-419
59	1	User Interface Criteria	T1	BB & LM	418-419
60	1	Assignment /Test Unit v	T1	BB & LM	

BB&LM - Black board & Lecture Mode

PPT – Power point presentation

ICT- Information Communication Technology

GD-Group Discussion

Sign of Faculty	**Sign of HOD**
Sign of Dean Academics	

Mangayarkarasi College of Arts & Science for Women, Paravai.

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UG-III YEAR

COURSE PLAN

PROGRAMME: III BSC CS A	**SEMESTER/ YEAR:** VI **semester 2021-22**
COURSE:DATA COMMUNICATION AND COMPUTER NETWORKS	**COURSE CODE:SCSJC61**
FACULTY 'S NAME: **1. Mrs. J.SUNITHA JOHN MCA.,M.Phil., B.Ed., (PhD)** **2. Mrs. B.MEENAKSHI MCA., M.Phil.** **3.Mrs.SHAMIM KAMAL M.SC., M.Phil.,B.Ed.,**	**TOTAL HOURS : 75**

SYLLABUS

OBJECTIVES:

1. Build an understanding of the fundamental concepts of data communication and computer Networking.
2. Understand how errors detected and corrected that occur in transmission
3. How collisions to be handled when many stations share a single channel
4. Know about routing mechanisms and different routing protocols
5. Understand transport layer functions
6. Know about different application layer protocols

COURSE OUTCOME:

CO1: Understand the basics of data communication, networking, internet and their importance.

CO2: Analyze the services and features of various protocol layers in data networks.

CO3: Differentiate wired and wireless computer networks

CO4: Analyze the concept of Internetworking.

CO5: To learn how to use Network Applications and Management

UNIT I:

Introduction: A Brief History – Applications – Computer Networks – Categories of Networks – Standards and Standards Organizations – Network Architecture – Open Systems and OSI Model – TCP/IP Architecture. **Communication Media and Data Transmission:**

Fourier Analysis – Analog and Digital Data Transmission – Modulation and Demodulation – Transmission Media – Wireless Communications – Data Transmission Basics – Transmission Mode – Interfacing – Multiplexing. **Error Detection and Correction:** Types of Errors – Error Detection – Error Correction. **Data Link Control and Protocol Concepts:** Flow Control – Error Control – Asynchronous Protocols – Synchronous Protocols – High-Level Data Link Control (HDLC).

UNIT II:

Local Area Networks: Types of Networks and Topology –LAN Transmission Equipment – LAN Installation and Performance. **Ethernet:** IEEE Standard 802.3 **Token Bus**: IEEE Standard 802.4 **Token Ring:** IEEE Standard 802.5 – Fiber Distributed Data Interface (FDDI) – **Distributed Queue Dual Bus (DQDB):** IEEE Standard 802.6 – LAN Operating Systems and Protocols – Ethernet Technologies. **Wide Area Networks:** WAN Transmission Methods – WAN Carrier Types – WAN Transmission Equipments – WAN Design and Multicast Considerations – WAN Protocols.

UNIT III:

Integrated Services and Routing Protocols: Integrating Services – ISDN Services – ISDN Topology – ISDN Protocols – Broadband ISDN – Asynchronous Transfer Mode (ATM) – Principal Characteristics of ATM – Frame Relay – Comparison of ISDN, ATM and Frame Relay. **Wireless LANS:** WLAN Applications – Wireless LAN Requirements – Planning for Wireless LANs – Wireless LAN Architecture – IEEE 802.11 Protocol Layer – IEEE 802.11 Physical Layer – Designing the Wireless LAN Layout – WAP Services.

UNIT IV:

Internet Working: Principles of Internet Working – Routing Principles – Internetwork Protocols (IP) – Shortcomings of IPv4 – IP Next Generation. **TCP Reliable Transport Service:** Transport Protocols – The Service TCP Provides to Applications – End –to-End Service and Datagrams – Transmission Control Protocol – User Datagram Protocol.

UNIT V:

Network Applications: Client-Server Model – Domain Name System (DNS) – Telnet – File Transfer and Remote File access – Electronic Mail – World Wide 397 Web (WWW) **Network Management:** Goal of Network Management – Network Management Standards – Network Management Model – Infrastructure for Network Management – Simple Network Management Protocol (SNMP).

TEXT BOOK:

Data Communications and Computer Networks, Brijendra Singh ,Second Edition, PHI, 2006.

Unit I : Chapters 1,2,3,5

Unit II : Chapters 6, 7

Unit III : Chapters 8, 9

Unit IV : Chapters 10,11

Unit V : Chapter 12

REFERENCE BOOKS:

1. Computer Networks, Andrew S Tanenbaum, 4th Ed, Prentice Hall of India, 2006.
2. Data Communications and Computer Networks, Prakash C. Gupta, Prentice Hall of India, 2005.
3. Data and Computer Communications, William Stallings, PHI, 2007.
4. Data Communication and Networking ,Behrouz A. Forouzan, TMH, 2005.
5. Data Communications and Networks , Achyut S Godbole, TMH,2005.

COURSE PLAN- VI SEMESTER 2021-22

S No	Hours	Topic	Book	Teaching Mode	Page No
UNIT-1					
1	1	Introduction: A Brief History , Applications	T1	BB & LM	1--10
2	1	Categories of Networks	T1	BB & LM	11-13
3	1	Standards and Standards Organizations	T1	BB & LM	13--17
4	1	Network Architecture , Open Systems and OSI Model	T1	BB & LM	17--21
5	1	TCP/IP Architecture.	T1	BB & LM	21--26
6	1	**Communication Media and Data Transmission:**	T1		

		Fourier Analysis		BB & LM	32--36
7	1	Analog and Digital Data Transmission	T1	BB & LM	36--40
8	1	Modulation and Demodulation	T1	BB & LM	40--44
9	1	Transmission Media	T1	ICT	44—49
10	1	Wireless Communications	T1	BB & LM	49--52
11	1	Data Transmission Basics, Transmission Mode, Interfacing	T1	BB & LM	52--59
12	1	Multiplexing	T1	BB & LM	59--62
13	1	**Error Detection and Correction:** Types of Errors, Error Detection	T1	BB & LM	64--72
14	1	Error Correction	T1	BB & LM	72--76
15	1	**Data Link Control and Protocol Concepts:** Flow Control , Error Control	T1	BB & LM	88--95
16	1	Asynchronous Protocols , Synchronous Protocols	T1	BB & LM	96--100
17	1	High-Level Data Link Control (HDLC)	T1	BB & LM	101--105
18	1	**University Questions**	Question Bank	Discussion	
19	1	**ICT Class**	PPT		
20	1	**Test Unit 1**			
UNIT-1I					
21	1	**Local Area Networks:** Types of Networks and Topology	T1	BB & LM	107--110
22	1	LAN Transmission Equipment	T1	BB & LM	110—119
23	1	LAN Installation and Performance, **Ethernet:** IEEE Standard 802.3, **Token Bus**: IEEE Standard 802.4 , IEEE Standard 802.5, Fiber Distributed Data Interface (FDDI), **Distributed Queue Dual**	T1	BB & LM	120--130

		Bus (DQDB): IEEE Standard 802.6			
24	1	LAN Operating Systems and Protocols, Ethernet Technologies	T1	BB & LM	130--135
25	1	**Wide Area Networks:** WAN Transmission Methods **d on 2 nit**	T1	ICT	137--142
26	1	WAN Carrier Types, WAN Transmission Equipments	T1	BB & LM	142--147
27	1	WAN Design and Multicast Considerations, WAN Protocols.	T1	BB & LM	148--154
28	1	**University Questions**	Question Bank	GD	
29	1	**ICT Class**	PPT		
30	1	**Test Unit 2**			
		UNIT-1II			
31	1	**Integrated Services and Routing Protocols:** Integrating Services	T1	BB & LM	156--158
32	1	ISDN Services, ISDN Topology	T1	BB & LM	158--161
33	1	ISDN Protocols, Broadband ISDN	T1	BB & LM	161--163
34	1	Asynchronous Transfer Mode (ATM)	T1	ICT	163--166
35	1	Principal Characteristics of ATM	T1	BB & LM	166--171
36	1	Frame Relay, Comparison of ISDN, ATM and Frame Relay	T1	BB & LM	171--175
37	1	**Wireless LANS**	T1	BB & LM	177--183
38	1	WLAN Applications, Wireless LAN Requirements, Planning for Wireless LANs	T1	BB & LM	185--189
39	1	Wireless LAN Architecture, IEEE 802.11 Protocol Layer, IEEE 802.11 Physical Layer	T1	BB & LM	189--193
40		Designing the Wireless	T1	BB & LM	193--198

	1	LAN Layout			
41	1	Designing Infrastructure Mode WLAN	T1	BB & LM	198--201
42	1	WAP Services.	T1	BB & LM	201--204
43	1	**University Questions**	Question Bank	Discussion	
44	1	**ICT Class**	PPT		
45	1	**Test Unit 3**			
		UNIT-1V			
46	1	**Internet Working:** Principles of Internet Working	T1	BB & LM	205--207
47	1	Routing Principles	T1	BB & LM	207--213
48	1	Internetwork Protocols (IP)	T1	PPT	213--216
49	1	Protocol Functions	T1	BB & LM	216--219
50	1	Shortcomings of IPv4 , IP Next Generation.	T1	BB & LM	219--221
51	1	Transport Protocols	T1	BB & LM	222--224
52	1	The Service TCP Provides to Applications, End- to-End Service and Datagram	T1	BB & LM	224--226
53	1	Transmission Control Protocol	T1	BB & LM	226--228
54	1	TCP implementing Policy Options	T1	BB & LM	228--231
55	1	User Datagram Protocol	T1	BB & LM	232
56	1	**Discussion about one mark for I & II unit**	Question Bank	Discussion	
57	1	**Discussion about one mark for III & IV unit**	Question Bank	Discussion	
58	1	**University Questions**	Question Bank	Discussion	
59	1	**ICT Class**	PPT		
60	1	**Test Unit 4**			
		UNIT-V			
61	1	**Network Applications:** Client-Server Model	T1	BB & LM	234--237

62	1	Domain Name System (DNS), Telnet	T1	BB & LM	237--241
63	1	File Transfer and Remote File access	T1	BB & LM	241--244
64	1	Electronic Mail	T1	BB & LM	245--250
65	1	World Wide Web (WWW)	T1	ICT	251--256
66	1	**Network Management:** Goal of Network Management	T1	BB & LM	258--263
67	1	Network Management Standards	T1	BB & LM	263--265
68	1	Network Management Model	T1	BB & LM	265--266
69	1	Infrastructure for Network Management	T1	BB & LM	266--269
70	1	Simple Network Management Protocol (SNMP).	T1	BB & LM	269--272
71	1	University Questions	Question Bank	Discussion	
72	1	ICT Class	PPT		
73	1	Test Important One Mark MCQ(All Units)			
74	1	Test Important 7 Marks (All Units)			
75	1	Test Important 10 Marks (All Units)			

BB-Black Board

LM-Lecture Mode

GD-Group Discussion

PPT-PowerPoint Presentation

ICT-Information & Communication Technology

Sign of HOD	Sign of Faculty:
Sign of Dean Academics	

Mangayarkarasi College of Arts & Science for Women, Paravai.

(Affiliated to Madurai Kamaraj University)

LESSON PLAN

PROGRAMME: III CS A	**SEMESTER/ YEAR: VI / 2021-2022**
COURSE: DATA MINING	**COURSE CODE:SCSGC62**
FACULTY 'S NAME: Mrs.S.Kirubha Rani **Mrs.G.Nivethitha** **Mrs.R.Lakshmi**	**TOTAL HOURS : 75Hrs**

Objectives:

The aim of data mining is to discover structure inside unstructured data, extract meaning from noisy data, discover patterns in apparently random data, and use all this information to better understand trends, patterns, correlations, and ultimately predict customer behavior, market and competition trends, so that the company uses its own data more meaningfully to better position itself on the new waves.

Cos	Course Outcome
CO1	The Students will get knowledge of Data preprocessing and data quality.
CO2	To know about the Modeling and design of data warehouses
CO3	Identify appropriate *data mining* algorithms to solve real world problems
CO4	Develop skill in selecting the appropriate *data mining* algorithm for solving practical problems.
CO5	Compare and evaluate different *data mining* techniques like classification, prediction, clustering and association rule *mining.*

Unit I:

Introduction: Data mining application – data mining techniques – data mining case studies the future of data mining – data mining software. **Association rules mining:** Introduction -Basics-task and a Naive algorithm- Apriori algorithm – improve the efficiency of the Apriori algorithm – mining frequent pattern without candidate generation (FP-growth) – performance evaluation of algorithms.

Unit II:

Data warehousing: Introduction – Operational data sources- data warehousing – Data Warehousing design – Guidelines for data warehousing implementation - Data warehousing - Metadata. **Online analytical processing (OLAP):** Introduction – OLAP characteristics of OLAP system – Multidimensional view and data cube - Data cube implementation – Data Cube operations OLAP implementation guidelines.

Unit III:

Classification: Introduction – decision tree – over fitting and pruning - DT rules – Naïve Bayes method- estimation predictive accuracy of classification methods - other evaluation criteria for classification method – classification software.

Unit IV:

Cluster analysis: cluster analysis – types of data – computing distances-types of cluster analysis methods - partitioned methods – hierarchical methods – density based methods – Dealing with large databases – quality and validity of cluster analysis methods – cluster analysis software

Unit V:

Web data mining: Introduction- web terminology and characteristics- locality and hierarchy in the web- web content mining-web usage mining- web structure mining – web mining software. **Search engines:** Search engines functionality- search engines architecture – Ranking of web pages.

Text Books

Introduction to Data mining with case studies, G.K. Gupta, PHI Private limited, New Delhi, 2008.

Unit I : Chapters 1 & 2

Unit II : Chapters 7 & 8

Unit III : Chapter 3

Unit IV: Chapter 4

Unit V: Chapters 5 & 6

Reference Books

1. Data Warehousing, Data Mining & OLAP, Alex Berson and Stephen J. Smith, Tata Mc Graw Hill Edition, Tenth Reprint 2007

2. Data Mining Concepts and Techniques, Jiawei Han and Micheline Kamber, Second Edition, Elsevier, 2007

3. Insights into Data Mining K.P. Soman, Shyam Diwakar, V. Ajay, Theory and Practice, PHI Publications Eastern Economy Edition 6th Printing, 2012

COURSE PLAN - VI SEMESTER2021-2022

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGENO
	UNIT-1				
1	1	Introduction to Data Mining	T1	BB & LM	1-8
2	2	Data Mining Application	T1	BB & LM	9
3	1	Data Mining Techniques	T1	PPT	10
4	1	Data Mining Case Studies	T1	GD	12-18
5	2	Data Mining Software	T1	BB & LM	19
6	2	Introduction to Association Rules Mining	T1	BB & LM	48,49
7	1	Basic Task & Naïve Algorithim	T1	BB & LM	50-53
8	1	Apriori Algorithim	T1	BB & LM	53-68
10	1	Mining frequent pattern(FP-Growth)	T1	BB & LM	76-81
11	1	Performance Evalution of Algorithim	T1	BB & LM	81,82
12	1	Revision			
13	1	ICT CLASS			
14	1	Test			
	UNIT-2				
15	1	Introduction to	T1	Video Class	

		DataWarehousing			
16	1	Operational Data Sources	T1	BB & LM	333-336
17	1	Data Warehousing Design	T1	BB & LM	347-352
18	1	Guidelines for DataWarehousing Implementation	T1	BB & LM	352-354
19	1	Data Warehousing-Metadata	T1	BB & LM	355,356
20	1	Online Analytical Processing	T1	BB & LM	381-384
21	1	Characteristics of OLAP System	T1	PPT	384-387
22	2	Multidimensional view and Data cube	T1	BB & LM	388-394
23	1	Data Cube Implementation	T1	BB & LM	394-398
24	2	Data Cube Operations	T1	BB & LM	398-403
25	1	OLAP Implementation Guidelines	T1	BB & LM	403,404
26	1	Revision	T1		
27	1	ICT CLASS	T1		
28	1	Test	T1		
	UNIT-3				
29	1	Introduction of Classification	T1	PPT	
30	1	Decision Tree	T1	BB & LM	106-109
31	2	Over Fitting & Pruning	T1	BB & LM	123
32	2	DT rules	T1	BB & LM	124
33	1	Naïve Bayes Method	T1	PPT	125-128

34	1	Estimation Predictive Accuracy of Classification Methods	T1	BB & LM	128-131
35	1	Other Evaluation Criteria for classification method	T1	BB & LM	133
36	1	Classification Software	T1	BB & LM	134
37	1	Revision	T1		
38	1	ICT CLASS	T1		
39	1	Test	T1		
	UNIT-4				
40	1	Cluster Analysis	T1	Video Class	PPT
41	2	Types of Data	T1	BB & LM	168,169
42	2	Computing Distances	T1	BB & LM	169,170
43	2	Types of Cluster Analysis methods	T1	BB & LM	170,171
44	2	Partitioned methods	T1	BB & LM	171-178
45	2	Hierarchical methods	T1	BB & LM	178-189
46	2	Density based methods	T1	BB & LM	189,190
47	2	Dealing with large databases	T1	BB & LM	190,191
48	1	Quality and Validity of Cluster analysis methods	T1	BB & LM	192,193
49	1	Cluster Analysis Software	T1	PPT	
50	1	Revision			
51	1	ICT CLASS			

52	1	Test			
	UNIT-V				
53	1	Web Data Mining	T1	Video Class	PPT
54	1	Introduction	T1	BB & LM	217-220
55	2	Web Terminology	T1	BB & LM	220-223
56	1	Characteristics	T1	BB & LM	223-225
57	1	Locality and hierarchy in the web	T1	BB & LM	225-227
58	2	Web Content Mining	T1	BB & LM	227-233
59	1	Web Structure Mining	T1	PPT	236-242
60	1	Web Mining Software	T1	BB & LM	242-244
61	1	Search Engines Functionality	T1	BB & LM	287
63	1	Search Engines Architecture	T1	BB & LM	287-294
64	1	Ranking of Web Pages	T1	BB & LM	294-301
65	1	Revision			
66	1	ICT CLASS			
67	1	Test			

BB - BLACK BOARD

LM - LECTURER MODE

PPT - POWERPOINT PRESENTATION

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GD - GROUP DISCUSSION

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LESSON PLAN

PROGRAMME: III BSC(CS) A	**SEMESTER/ YEAR: 2021-22**
COURSE:Compiler Design	**COURSE CODE:SCSJC61**
FACULTY 'S NAME : **Dr.M.Punitha ,** **Mrs.V.Kalai Selvi,** **Mrs.M.Viji,**	**TOTAL HOURS: 75**

SYLLABUS

OBJECTIVES:

1. To provide a comprehensive and integrated coverage of Services Marketing in Indian business context.
2. To facilitate the learner the role of marketing mix in the Services Marketing context.

COURSE OUTCOME:

CO1: To realize basics of compiler design and apply for real time applications.

CO2: To introduce different translation languages and understand the importance of code optimization

CO3: To know about compiler generation tools and techniques

CO4: To learn working of compiler and non compiler applications

CO5: Design a compiler for a simple programming language

COMPIELR DESIGN

Unit I :

Introduction to Compliers: Compliers and Translator – Need of Translator – The structure of a Complier – Lexical analysis – Syntax analysis – Intermediate code generation – optimization – code generation – Complier – writing tools. Finite automata and lexical Analysis: The role of the lexical

analysis – A simple approach to the design of lexical analyzers- Regular expressions to finite automata – Minimizing the number of states of a DFA. 401

Unit II :

The Syntactic specification of programming languages: context free grammars – derivations and parse trees – capabilities of context free grammars. Basic parsing techniques: Parsers – shift – reduce parsing – operator – precedence parsing – top down parsing – predictive parsers.

Unit III:

Syntax – directed translation: syntax – directed translation schemes – implementation of syntax – directed translators – intermediate code – postfix notation – parse trees and syntax trees – 3 address code – quadruples and triples – translation of assignment statements – Boolean expressions – statements that alter the flow of control. Symbol tables: the contents of a symbol table – data structures for symbol table – representing scope information.

Unit IV:

Run time storage administration: Implementation of a simple stack allocation scheme

– implementation of block-structured languages – storage allocation in block structured languages. Error deduction and recovery: errors – lexical phase errors – syntactic phase errors – semantic errors.

Unit V:

Introduction of code optimization: The principle sources of optimization – loop optimization – the DAG representation of basic blocks – value numbers and algebraic laws – Global data flow analysis. Code generation: Object programs – problems in code generation – a machine model – a simple code generator – register allocation and assignment – code generation from DAG‘s – peepholes optimization.

Text Book

Principles of Complier Design,Alfred V.Aho, Jeffrey D.Ullman , Narosa Publishing House.25th Reprint, 2001.

Unit I : Chapters 1.1 – 1.11, 3.1 – 3.6

Unit II : Chapters 4 & 5

Unit III : Chapters 7.1 – 7.9 , & 9

Unit IV : Chapters 10(excluding 10.3) & 11

Unit V : Chapters 12 & 15

Reference Books :

1. Compiler Principles, Techniques and Tools by Alfred V.Aho, Monica S.Lam, Ravi Sethi, Jeffrey D. Ullman, Second edition, Pearson Publications, 2007.

2. Advanced Compiler Design and Implementation - Steven S. Muchnick, Morgan Kaufmann Publishers - Elsevier Science, India, Indian Reprint 2003.

3. Introduction to Compiler Techniques, J.P. Bennet, Second Edition, Tata

402 McGraw-Hill, 2003.

COURSE PLAN- VI SEMESTER 2021-22

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
		UNIT-1			
1	1	Introduction to Compliers: Compliers and Translator – Need of Translator	T1	BB & LM	1-3
2	1	The structure of a Complier	T1	BB & LM	5
3	1	Lexical analysis	T1	PPT	10
4	1	Syntax analysis	T1	BB & LM	12
5	1	Intermediate code generation	T1	BB & LM	13
6	1	Optimization	T1	BB & LM	17
7	1	Code generation	T1	BB & LM	19
8	1	Book Keeping	T1	BB & LM	20
9	1	Error handling, Compiler-Writitng tools	T1	BB & LM	21
10	1	Revision			
11	1	Test chapter 1			

12	1	The Role of Lexical Analysis	T1	BB & LM	74
13	1	A Simple Approach to the Design Lexical Analyzers	T1	BB & LM	76
14	1	Regular Expression	T1	BB & LM	82
15	1	Finite Automata	T1	BB & LM	88
16	1	Finite Automata	T1	BB & LM	92
17	1	Minimizing the number states of DFA	T1	BB & LM	99
18	1	REVISION			
19	1	TEST CHAPTER 3(UNIT I)			
UNIT-2					
20	1	Context Free Grammers	T 1	BB & LM	126
21	1	Derivations and Parse trees	T1	BB & LM	129
22	1	Capabilities of context-free grammers	T1	BB & LM	132
23	1	Capabilities of context-free grammers	T1	BB & LM	136
24	1	Revision Chapter 4			
25	1	Test Unit 2			
26	1	Parsers	T1	BB & LM	146
27	1	Shift-reduce parsing	T1	BB & LM	150
28	1	Operator-precedence parsing	T1	BB & LM	158
29	1	Top-down parsing	T1	PPT	174

30	1	Predictive parser	T1	BB & LM	184
31	1	TEST UNIT 2/ UNIVERSITY QUESTIONS			
UNIT-3					
32	1	Syntax- translation directed schemes	T1	BB & LM	246
33	1	Implementation of syntax-directed translators	T1	BB & LM	249
34	1	Intermediate code	T1	BB & LM	254
35	1	Postfix Notation	T1	BB & LM	254
36	1	Parser trees syntax trees	T1	BB & LM	258
37	1	Revision Chapter 7		BB & LM	
38	1	Three-address code,Quadruples,and Triples	T1	BB & LM	259
39	1	Translation and assignment statements	T1	BB & LM	265
40	1	Boolean expression	T1	PPT	271
41	1	Statements that alter the flow of control	T1	BB & LM	281
42	1	The contents of a symbol table(SEMINAR)	T1	BB & LM	328
43	1	Revision Chapter 7			
44	1	Data structures for symbol tables	T1	BB & LM	336
45	1	Representing scope information	T1	BB & LM	341

46	1	Assignment Based on 3 rd Unit/ Test Unit 3			
47	1	ICT CLASS(Boolean expression)			
UNIT-4					
48	1	Implementation simple stack allocation scheme	T1	BB & LM	351
49	1	Implementation of block - Structured Languages	T1	BB & LM	356
50	1	Storage Allocation in block – structured Languages	T1	BB & LM	377
51	1	Revision Chapter 10			
	1	TEST CHAPTER 10			
52	1	Errors	T1	BB & LM	382
53	1	Lexical-phase errors	T1	BB & LM	388
54	1	Syntactic-phase errors	T1	BB & LM	391
55	1	Semantic error	T1	PPT	402
56	1	Revision Chapter 11			
57	1	Assignment Based on 4 th Unit			
58	1	TEST CHAPTER 11			
59	1	Report writing			
60	1	UNIVERSITY QUESTIONS			
61	1	ICT CLASS(Semantic error)			
62	1	TEST UNIT 4			
UNIT-5					

60	1	The principle sources of optimization	T1	BB & LM	408
61	1	Loop optimization	T1	BB & LM	410
62	1	The DAG representation of basic blocks	T1	BB & LM	418
63	1	Value number and algebraic laws	T1	BB & LM	427
64	1	Global data –flow analysis	T1	PPT	429
65	1	Revision Chapter 12			
66	1	Object programs(Seminar)	T1	BB & LM	518
67	1	Problems in code generation	T1	BB & LM	521
68	1	A Machine model(SEMINAR)	T1	BB & LM	523
71	1	Internal assessment			
72	1	Revision Chapter 15			
73	1	Test Important Subjective 7m Questions (All Units)			
74	1	Test Important Subjective 10m Questions (All Units)			
75	1	Mock Test 1/ UNIVERSITY QUESTIONS			

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LESSON PLAN

PROGRAMME: III B.Sc., CS A	**SEMESTER/ YEAR: VI/2021-22**
COURSE: QUANTITATIVE APTITUDE	**COURSE CODE: SCSJS61**
FACULTY 'S NAME: J.RANINANDHINI **P. KALAISELVI** **P.S.BOOMIKA**	**TOTAL HOURS: 30 Hrs**

SYLLABUS

Objectives:

This course is designed to

- To enable the students to learn basic mathematical concepts required for quantitative aptitude and to solve a question in a fraction of minute by using short-cut methods.
- Students will be able to solve questions asked in quantitative aptitude in a fraction of minute.

COURSE OUTCOME:

CO1: Apply Mathematical tricks to find LCM &HCF of Numbers and Decimal Fractions.

CO2: Analyse about Cube roots, square roots and Average of numbers.

CO3: Acquire the knowledge of Percentage and Distinguish between profit and loss.

CO4: Analyse about Time and work, Time and distance.

CO5: Distinguish between Simple Interest and Compound Interest.

SYLLABUS

UNIT I

Numbers - HCF and LCM of Numbers - Decimal Fractions.

UNIT II

Square roots and Cube roots - Average - Problems on ages**.**

UNIT III

Percentage - Profit and Loss – Ratio and Proportions.

UNIT IV

Time and work – Time and distance.

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UNIT V

Simple Interest - Compound Interest.

Text Book:

S No	HOURS	TOPIC	BOOK	TEACHING MODE	BOOK PAGE NO	MATERIAL PAGE NO
	UNIT-1					
1	2 hrs	Numbers	T1	BB	3-29	1-15
2	2 hrs	HCF of Numbers	T1	BB	30-37	16-19
3	1 hr	LCM of Numbers	T1	BB	38-45	20-23
4	1 hr	Decimal Fractions	T1	BB	46-66	24-34
5		UNIVERSITY QUESTIONS				
6	1 hr	ICT CLASS		Prepare the PPT in Exercise Problems.	**Topic:** HCF & LCM	
7		TEST				
	UNIT-2					
8	2 hrs	Square roots	T1	BB	117-125	35-39
9	1 hr	Cube roots	T1	BB	126-138	40-46
10	2 hrs	Average	T1	BB	139-155	46-54
11	1 hr	Problems on ages	T1	BB	182-189	55-58
12		UNIVERSITY QUESTIONS				
13		ICT CLASS				
14	1 hr	TEST				
	UNIT-3					
15	2 hrs	Percentage	T1	BB	208-230	59-80
16	1 hr	Profit and Loss	T1	BB	251-286	80-98

17	1 hr	Ratio and Proportions	T1	BB	294-310	99-107
18		UNIVERSITY QUESTIONS				
19	1 hr	ICT CLASS		Maths Shortcuts videos in YouTube.	Profit and Loss: https://youtu.be/OocoU45-wt1	
20		TEST				
	UNIT-4					
21	1 hr	Time and work	T1	BB	341-365	108-120
22	2 hrs	Time and distance	T1	BB	384-400	121-131
23		UNIVERSITY QUESTIONS				
24	1 hr	ICT CLASS		Maths shortcut video in YouTube.	Time and work: https://youtu.be/EVTHDwzU4rQ	
25	1 hr	TEST				
	UNIT-5					
26	2 hrs	Simple Interest	T1	BB	445-465	132-141
27	2 hrs	Compound Interest	T1	BB	466-480	142-149
28	1 hr	UNIVERSITY QUESTIONS		Question Bank	Discussion	
29	1 hr	ICT CLASS		Prepare the PPT in Exercise Problems.	**Topic:** Compound Interest	
30		TEST				

Quantitative Aptitude-- Dr. R.S.Aggarwal S.Chand& Company Pvt. Ltd, 2015

Reference Books:

1. Quantitative Aptitude and Reasoning, R.V.Parwin,PHI,Learning, Second Edition - 2013 2.Magical Book on Quicker maths, M.TYRA, BSC Publications,CO, Private Limited,Delhi, Reprint 2011.

2. Quantitative Aptitude for Competitive Exam – Abhijit Guha 4th Edition TATA Mchil, company New Delhi.

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COURSE PLAN- VI-SEMESTER 2021-22

LESSON PLAN

PROGRAMME: B.Sc.	**SEMESTER-6/ YEAR: 2020-21**
COURSE: Fundamentals of Physics-II	**COURSE CODE: SPHJN61**
FACULTY 'S NAME: Dr. M. Sinduja, **Mrs. G. Jenifer,** **Ms. B. Sivarnjani**	**TOTAL HOURS: 30 hrs** **Credit: 2**

SYLLABUS

Objectives:

This course is designed for the Students gain knowledge about basic laws, DC sources and DC generators, Remembering the concept in an AC current generation, Impart knowledge in simpleelectrical circuits and measurements of electric power.

COURSE OUTCOME:

CO1: Impart knowledge about the basic concepts of electrical quantities using basic circuit lawsCO2: Get an idea on the construction and operation of batteries and their classification

CO3: Learn to understand the generation of power from sources and their voltage, current valuesCO4: Learn the working of energy meter, choke coil, wattles current and power factor

CO5: Understand the basic properties of electrical elements

Unit I

Electric current- voltage and resistance- Ohm's Law- Kirchoff's law- Resistance in series and parallel

Unit II

DC source- Primary cells- Lechlanche and Daniel cells- Secondary cells – Lead acid accumulator- DCgenerator

Unit III

Alternating current generation by hydro, thermal and atomic power stations- RMS value- Peak value(quantitative)- AC generator (no derivation)

Unit IV

Measurement of electric power by wattmeter- simple calculations- induction coil- wattles current-power factor

Unit V

Simple electrical circuits- resistor, capacitor and inductor connected to ac source (independently)-Relationship between emf and current in each case. Diode- bridge rectifier

Text Book:

T1. Electricity and magnetism – R. Murugesan- S. Chand and Co, 2004

Reference

R1: Basic electrical engineering- V. K. Mehta- S. chand

Teaching mode: BB (Black board teaching), PPT (power point presentation)

COURSE PLAN- VIst SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
	UNIT-1			

1	1	Electric current, voltage and resistance, Ohm's law	T1 (85-87)	BB
2	1	Kirchoff's law	T1 (90)	PPT
3	1	Resistance in series and parallel	R1 (37, 41)	BB
4	1	UNIVERSITY QUESTIONS ICT CLASS TEST		
	UNIT-2			
5	1	DC source, Primary cells- Leclanche celland Daniel cell	R1 (491), T1 (126)	BB
6	1	Secondary cell- Lead acid accumulator	T1 (122)	PPT
7	1	DC generator	T1 (245)	BB
8	1	UNIVERSITY QUESTIONS ICT CLASS TEST		
	UNIT-3			
9	1	Alternating current generation by hydro, thermal and atomic power stations	T1 (209)	PPT
10	1	RMS value and peak value	T1 (210)	BB
11	1	AC generator	T1 (244)	BB

12	1	UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
	UNIT-4			
13	1	Measurement of electric power by Wattmeter	T1 (441)	PPT
14	1	Simple calculations	T1 (443)	BB
15	1	Induction coil, wattless current, power Factor	T1 (226)	PPT
16	1	UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
	UNIT-5			
17	1	Simple electric circuits- resistor, capacitor and inductor connected to AC source	T1 (212)	BB
18	1	Relationship between emf and current	T1 (214)	BB
19	1	Diode- bridge rectifier	R1 (154)	BB
20	1	UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		

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UG-III YEAR

COURSE PLAN

PROGRAMME: III BSC CS	**SEMESTER/ YEAR:** VI **semester 2021-22**
COURSE:DATA COMMUNICATION AND COMPUTER NETWORKS	**COURSE CODE:SCSJC61**
FACULTY 'S NAME: **1. Mrs. J.SUNITHA JOHN MCA.,M.Phil., B.Ed., (PhD)** **2. Mrs. B.MEENAKSHI MCA., M.Phil.** **3.Mrs.SHAMIM KAMAL M.SC., M.Phil.,B.Ed.,**	**TOTAL HOURS : 75**

SYLLABUS

OBJECTIVES:

1. Build an understanding of the fundamental concepts of data communication and computer Networking.
2. Understand how errors detected and corrected that occur in transmission
3. How collisions to be handled when many stations share a single channel
4. Know about routing mechanisms and different routing protocols
5. Understand transport layer functions
6. Know about different application layer protocols

COURSE OUTCOME:

CO1: Understand the basics of data communication, networking, internet and their importance. **CO2:**Analyze the services and features of various protocol layers in data networks.

CO3: Differentiate wired and wireless computer networks

CO4: Analyze the concept of Internetworking.

CO5: To learn how to use Network Applications and Management

UNIT I:

Introduction: A Brief History – Applications – Computer Networks – Categories of Networks – Standards and Standards Organizations – Network Architecture – Open Systems and OSI Model – TCP/IP Architecture.

Communication Media and Data Transmission: Fourier Analysis – Analog and Digital Data Transmission – Modulation and Demodulation – Transmission Media – Wireless Communications – Data Transmission Basics – Transmission Mode – Interfacing – Multiplexing. **Error Detection and Correction:** Types of Errors – Error Detection – Error Correction. **Data Link Control and Protocol Concepts:** Flow Control – Error Control – Asynchronous Protocols – Synchronous Protocols – High-Level Data Link Control (HDLC).

UNIT II:

Local Area Networks: Types of Networks and Topology –LAN Transmission Equipment – LAN Installation and Performance. **Ethernet:** IEEE Standard 802.3 **Token Bus**: IEEE Standard 802.4 **Token Ring:** IEEE Standard 802.5 – Fiber Distributed Data Interface (FDDI) – **Distributed Queue Dual Bus (DQDB):** IEEE Standard 802.6 – LAN Operating Systems and Protocols – Ethernet Technologies. **Wide Area Networks:** WAN Transmission Methods – WAN Carrier Types – WAN Transmission Equipments – WAN Design and Multicast Considerations – WAN Protocols.

UNIT III:

Integrated Services and Routing Protocols: Integrating Services – ISDN Services – ISDN Topology – ISDN Protocols – Broadband ISDN – Asynchronous Transfer Mode (ATM) – Principal Characteristics of ATM – Frame Relay – Comparison of ISDN, ATM and Frame Relay. **Wireless LANS:** WLAN Applications – Wireless LAN Requirements – Planning for Wireless LANs – Wireless LAN Architecture – IEEE 802.11 Protocol Layer – IEEE 802.11 Physical Layer – Designing the Wireless LAN Layout – WAP Services.

UNIT IV:

Internet Working: Principles of Internet Working – Routing Principles – Internetwork Protocols (IP) – Shortcomings of IPv4 – IP Next Generation. **TCP Reliable Transport Service:** Transport Protocols – The Service TCP Provides to Applications – End –to-End Service and Datagrams – Transmission Control Protocol – User Datagram Protocol.

UNIT V:

Network Applications: Client-Server Model – Domain Name System (DNS) – Telnet – File Transfer and Remote File access – Electronic Mail – World Wide 397 Web (WWW) **Network Management:** Goal of Network Management – Network Management Standards – Network Management Model – Infrastructure for Network Management – Simple Network Management Protocol (SNMP).

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TEXT BOOK:

Data Communications and Computer Networks, Brijendra Singh ,Second Edition, PHI, 2006.

Unit I : Chapters 1,2,3,5

Unit II : Chapters 6, 7

Unit III : Chapters 8, 9

Unit IV : Chapters 10,11

Unit V : Chapter 12

REFERENCE BOOKS:

1. Computer Networks, Andrew S Tanenbaum, 4th Ed, Prentice Hall of India, 2006.
2. Data Communications and Computer Networks, Prakash C. Gupta, Prentice Hall of India, 2005.
3. Data and Computer Communications, William Stallings, PHI, 2007.
4. Data Communication and Networking ,Behrouz A. Forouzan, TMH, 2005.
5. Data Communications and Networks , Achyut S Godbole, TMH,2005.

COURSE PLAN- VI SEMESTER 2021-22

S No	Hours	Topic	Book	Teaching Mode	Page No
UNIT-1					
1	1	Introduction: A Brief History , Applications	T1	BB & LM	1--10
2	1	Categories of Networks	T1	BB & LM	11-13
3	1	Standards and Standards Organizations	T1	BB & LM	13--17
4	1	Network Architecture , Open Systems and OSI Model	T1	BB & LM	17--21
5	1	TCP/IP Architecture.	T1	BB & LM	21--26
6	1	**Communication Media and Data Transmission:** Fourier Analysis	T1	BB & LM	32--36
7	1	Analog and Digital Data Transmission	T1	BB & LM	36--40
8	1	Modulation and Demodulation	T1	BB & LM	40--44
9	1	Transmission Media	T1	ICT	44—49

10	1	Wireless Communications	T1	BB & LM	49--52
11	1	Data Transmission Basics, Transmission Mode, Interfacing	T1	BB & LM	52--59
12	1	Multiplexing	T1	BB & LM	59--62
13	1	**Error Detection and Correction:** Types of Errors, Error Detection	T1	BB & LM	64--72
14	1	Error Correction	T1	BB & LM	72--76
15	1	**Data Link Control and Protocol Concepts:** Flow Control , Error Control	T1	BB & LM	88--95
16	1	Asynchronous Protocols , Synchronous Protocols	T1	BB & LM	96--100
17	1	High-Level Data Link Control (HDLC)	T1	BB & LM	101--105
18	1	**University Questions**	Question Bank	Discussion	
19	1	**ICT Class**	PPT		
20	1	**Test Unit 1**			
		UNIT-1I			
21	1	**Local Area Networks:** Types of Networks and Topology	T1	BB & LM	107--110
22	1	LAN Transmission Equipment	T1	BB & LM	110—119
23	1	LAN Installation and Performance, **Ethernet:** IEEE Standard 802.3, **Token Bus**: IEEE Standard 802.4 , IEEE Standard 802.5, Fiber Distributed Data Interface (FDDI), **Distributed Queue Dual Bus (DQDB):** IEEE Standard 802.6	T1	BB & LM	120--130
24	1	LAN Operating Systems and Protocols, Ethernet Technologies	T1	BB & LM	130--135
25		**Wide Area Networks:** WAN Transmission	T1	ICT	137--142

	1	Methods			
26	1	WAN Carrier Types, WAN Transmission Equipments	T1	BB & LM	142--147
27	1	WAN Design and Multicast Considerations, WAN Protocols.	T1	BB & LM	148--154
28	1	**University Questions**	Question Bank	GD	
29	1	**ICT Class**	PPT		
30	1	**Test Unit 2**			
		UNIT-1II			
31	1	**Integrated Services and Routing Protocols:** Integrating Services	T1	BB & LM	156--158
32	1	ISDN Services, ISDN Topology	T1	BB & LM	158--161
33	1	ISDN Protocols, Broadband ISDN	T1	BB & LM	161--163
34	1	Asynchronous Transfer Mode (ATM)	T1	ICT	163--166
35	1	Principal Characteristics of ATM	T1	BB & LM	166--171
36	1	Frame Relay, Comparison of ISDN, ATM and Frame Relay	T1	BB & LM	171--175
37	1	**Wireless LANS**	T1	BB & LM	177--183
38	1	WLAN Applications, Wireless LAN Requirements, Planning for Wireless LANs	T1	BB & LM	185--189
39	1	Wireless LAN Architecture, IEEE 802.11 Protocol Layer, IEEE 802.11 Physical Layer	T1	BB & LM	189--193
40	1	Designing the Wireless LAN Layout	T1	BB & LM	193--198
41	1	Designing Infrastructure Mode WLAN	T1	BB & LM	198--201
42	1	WAP Services.	T1	BB & LM	201--204
43	1	**University Questions**	Question Bank	Discussion	
44	1	**ICT Class**	PPT		

45	1	**Test Unit 3**			
			UNIT-1V		
46	1	**Internet Working:** Principles of Internet Working	T1	BB & LM	205--207
47	1	Routing Principles	T1	BB & LM	207--213
48	1	Internetwork Protocols (IP)	T1	PPT	213--216
49	1	Protocol Functions	T1	BB & LM	216--219
50	1	Shortcomings of IPv4 , IP Next Generation.	T1	BB & LM	219--221
51	1	Transport Protocols	T1	BB & LM	222--224
52	1	The Service TCP Provides to Applications, End- to-End Service and Datagram	T1	BB & LM	224--226
53	1	Transmission Control Protocol	T1	BB & LM	226--228
54	1	TCP implementing Policy Options	T1	BB & LM	228--231
55	1	User Datagram Protocol	T1	BB & LM	232
56	1	**Discussion about one mark for I & II unit**	Question Bank	Discussion	
57	1	**Discussion about one mark for III & IV unit**	Question Bank	Discussion	
58	1	**University Questions**	Question Bank	Discussion	
59	1	**ICT Class**	PPT		
60	1	**Test Unit 4**			
			UNIT-V		
61	1	**Network Applications:** Client-Server Model	T1	BB & LM	234--237
62	1	Domain Name System (DNS), Telnet	T1	BB & LM	237--241
63	1	File Transfer and Remote File access	T1	BB & LM	241--244
64	1	Electronic Mail	T1	BB & LM	245--250
65	1	World Wide Web (WWW)	T1	ICT	251--256

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66	1	**Network Management:** Goal of Network Management	T1	BB & LM	258--263
67	1	Network Management Standards	T1	BB & LM	263--265
68	1	Network Management Model	T1	BB & LM	265--266
69	1	Infrastructure for Network Management	T1	BB & LM	266--269
70	1	Simple Network Management Protocol (SNMP).	T1	BB & LM	269--272
71	1	University Questions	Question Bank	Discussion	
72	1	ICT Class	PPT		
73	1	Test Important One Mark MCQ(All Units)			
74	1	Test Important 7 Marks (All Units)			
75	1	Test Important 10 Marks (All Units)			

BB-Black Board

LM-Lecture Mode

PPT-PowerPoint Presentation

GD-Group Discussion

ICT-Information & Communication Technology

Sign of HOD	Sign of Faculty:
Sign of Dean Academics	

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LESSON PLAN

PROGRAMME: III CS	**SEMESTER/ YEAR: VI / 2021-2022**
COURSE: DATA MINING	**COURSE CODE:SCSGC62**
FACULTY 'S NAME: Mrs.S.Kirubha Rani **Mrs.G.Nivethitha** **Mrs.R.Lakshmi**	**TOTAL HOURS : 75Hrs**

Objectives:

The aim of data mining is to discover structure inside unstructured data, extract meaning from noisy data, discover patterns in apparently random data, and use all this information to better understand trends, patterns, correlations, and ultimately predict customer behavior, market and competition trends, so that the company uses its own data more meaningfully to better position itself on the new waves.

Cos	Course Outcome
CO1	The Students will get knowledge of Data preprocessing and data quality.
CO2	To know about the Modeling and design of data warehouses
CO3	Identify appropriate *data mining* algorithms to solve real world problems
CO4	Develop skill in selecting the appropriate *data mining* algorithm for solving practical problems.
CO5	Compare and evaluate different *data mining* techniques like classification, prediction, clustering and association rule *mining.*

Unit I:

Introduction: Data mining application – data mining techniques – data mining case studies the future of data mining – data mining software. **Association rules mining:** Introduction -Basics-task and a Naive algorithm-

Apriori algorithm – improve the efficiency of the Apriori algorithm – mining frequent pattern without candidate generation (FP-growth) – performance evaluation of algorithms.

Unit II:

Data warehousing: Introduction – Operational data sources- data warehousing – Data Warehousing design – Guidelines for data warehousing implementation - Data warehousing -Metadata. **Online analytical processing (OLAP):** Introduction – OLAP characteristics of OLAP system – Multidimensional view and data cube - Data cube implementation – Data Cube operations OLAP implementation guidelines.

Unit III:

Classification: Introduction – decision tree – over fitting and pruning - DT rules – Naïve Bayes method- estimation predictive accuracy of classification methods - other evaluation criteria for classification method – classification software.

Unit IV:

Cluster analysis: cluster analysis – types of data – computing distances-types of cluster analysis methods - partitioned methods – hierarchical methods – density based methods – Dealing with large databases – quality and validity of cluster analysis methods – cluster analysis software

Unit V:

Web data mining: Introduction- web terminology and characteristics- locality and hierarchy in the web- web content mining-web usage mining- web structure mining – web mining software. **Search engines:** Search engines functionality- search engines architecture – Ranking of web pages.

Text Books

Introduction to Data mining with case studies, G.K. Gupta, PHI Private limited, New Delhi, 2008.

Unit I : Chapters 1 & 2

Unit II : Chapters 7 & 8

Unit III : Chapter 3

Unit IV: Chapter 4

Unit V: Chapters 5 & 6

Reference Books

1. Data Warehousing, Data Mining & OLAP, Alex Berson and Stephen J. Smith, Tata Mc Graw Hill Edition, Tenth Reprint 2007

2. Data Mining Concepts and Techniques, Jiawei Han and Micheline Kamber, Second Edition, Elsevier, 2007

3. Insights into Data Mining K.P. Soman, Shyam Diwakar, V. Ajay, Theory and Practice, PHI Publications Eastern Economy Edition 6th Printing, 2012

COURSE PLAN - VI SEMESTER2021-2022

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGENO
		UNIT-1			
1	1	Introduction to Data Mining	T1	BB & LM	1-8
2	2	Data Mining Application	T1	BB & LM	9
3	1	Data Mining Techniques	T1	PPT	10
4	1	Data Mining Case Studies	T1	GD	12-18
5	2	Data Mining Software	T1	BB & LM	19
6	2	Introduction to Association Rules Mining	T1	BB & LM	48,49
7	1	Basic Task & Naïve Algorithim	T1	BB & LM	50-53
8	1	Apriori Algorithim	T1	BB & LM	53-68
10	1	Mining frequent pattern(FP-Growth)	T1	BB & LM	76-81
11	1	Performance Evalution of Algorithim	T1	BB & LM	81,82
12	1	Revision			
13	1	ICT CLASS			
14	1	Test			
		UNIT-2			
15	1	Introduction to DataWarehousing	T1	Video Class	
16	1	Operational Data Sources	T1	BB & LM	333-336

17	1	Data Warehousing Design	T1	BB & LM	347-352
18	1	Guidelines for DataWarehousing Implementation	T1	BB & LM	352-354
19	1	Data Warehousing-Metadata	T1	BB & LM	355,356
20	1	Online Analytical Processing	T1	BB & LM	381-384
21	1	Characteristics of OLAP System	T1	PPT	384-387
22	2	Multidimensional view and Data cube	T1	BB & LM	388-394
23	1	Data Cube Implementation	T1	BB & LM	394-398
24	2	Data Cube Operations	T1	BB & LM	398-403
25	1	OLAP Implementation Guidelines	T1	BB & LM	403,404
26	1	Revision	T1		
27	1	ICT CLASS	T1		
28	1	Test	T1		
	UNIT-3				
29	1	Introduction of Classification	T1	PPT	
30	1	Decision Tree	T1	BB & LM	106-109
31	2	Over Fitting & Pruning	T1	BB & LM	123
32	2	DT rules	T1	BB & LM	124
33	1	Naïve Bayes Method	T1	PPT	125-128
34	1	Estimation Predictive Accuracy of Classification Methods	T1	BB & LM	128-131

35	1	Other Evaluation Criteria for classification method	T1	BB & LM	133
36	1	Classification Software	T1	BB & LM	134
37	1	Revision	T1		
38	1	ICT CLASS	T1		
39	1	Test	T1		
	UNIT-4				
40	1	Cluster Analysis	T1	Video Class	PPT
41	2	Types of Data	T1	BB & LM	168,169
42	2	Computing Distances	T1	BB & LM	169,170
43	2	Types of Cluster Analysis methods	T1	BB & LM	170,171
44	2	Partitioned methods	T1	BB & LM	171-178
45	2	Hierarchical methods	T1	BB & LM	178-189
46	2	Density based methods	T1	BB & LM	189,190
47	2	Dealing with large databases	T1	BB & LM	190,191
48	1	Quality and Validity of Cluster analysis methods	T1	BB & LM	192,193
49	1	Cluster Analysis Software	T1	PPT	
50	1	Revision			
51	1	ICT CLASS			
52	1	Test			
	UNIT-V				

53	1	Web Data Mining	T1	Video Class	PPT
54	1	Introduction	T1	BB & LM	217-220
55	2	Web Terminology	T1	BB & LM	220-223
56	1	Characteristics	T1	BB & LM	223-225
57	1	Locality and hierarchy in the web	T1	BB & LM	225-227
58	2	Web Content Mining	T1	BB & LM	227-233
59	1	Web Structure Mining	T1	PPT	236-242
60	1	Web Mining Software	T1	BB & LM	242-244
61	1	Search Engines Functionality	T1	BB & LM	287
63	1	Search Engines Architecture	T1	BB & LM	287-294
64	1	Ranking of Web Pages	T1	BB & LM	294-301
65	1	Revision			
66	1	ICT CLASS			
67	1	Test			

BB - BLACK BOARD

LM - LECTURER MODE

PPT - POWERPOINT PRESENTATION

GD - GROUP DISCUSSION

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Sign of Faculty:	Sign of HOD:
Sign of Dean Academics :	

LESSON PLAN

PROGRAMME: III BSC(CS) A,B,C	**SEMESTER/ YEAR: 2021-22**
COURSE:Compiler Design	**COURSE CODE:SCSJC61**
FACULTY 'S NAME : **Mrs.M.Punitha ,** **Mrs.V.Kalai Selvi,** **Mrs.M.Viji,**	**TOTAL HOURS: 75**

SYLLABUS

OBJECTIVES:

1. To provide a comprehensive and integrated coverage of Services Marketing in Indian business context.
2. To facilitate the learner the role of marketing mix in the Services Marketing context.

COURSE OUTCOME:

CO1: To realize basics of compiler design and apply for real time applications.

CO2: To introduce different translation languages and understand the importance of code optimization

CO3: To know about compiler generation tools and techniques

CO4: To learn working of compiler and non compiler applications

CO5: Design a compiler for a simple programming language

COMPIELR DESIGN

Unit I :

Introduction to Compliers: Compliers and Translator – Need of Translator – The structure of a Complier – Lexical analysis – Syntax analysis – Intermediate code generation – optimization – code generation – Complier – writing tools. Finite automata and lexical Analysis: The role of the lexical analysis – A simple approach to the design of lexical analyzers- Regular expressions to finite automata – Minimizing the number of states of a DFA. 401

Unit II :

The Syntactic specification of programming languages: context free grammars – derivations and parse trees – capabilities of context free grammars. Basic parsing techniques: Parsers – shift – reduce parsing – operator – precedence parsing – top down parsing – predictive parsers.

Unit III:

Syntax – directed translation: syntax – directed translation schemes – implementation of syntax – directed translators – intermediate code – postfix notation – parse trees and syntax trees – 3 address code – quadruples and triples – translation of assignment statements – Boolean expressions – statements that alter the flow of control. Symbol tables: the contents of a symbol table – data structures for symbol table – representing scope information.

Unit IV:

Run time storage administration: Implementation of a simple stack allocation scheme

– implementation of block-structured languages – storage allocation in block structured languages. Error deduction and recovery: errors – lexical phase errors – syntactic phase errors

– semantic errors.

Unit V:

Introduction of code optimization: The principle sources of optimization – loop optimization – the DAG representation of basic blocks – value numbers and algebraic laws – Global data flow analysis. Code generation:

Object programs – problems in code generation – a machine model – a simple code generator – register allocation and assignment – code generation from DAG's – peepholes optimization.

Text Book

Principles of Complier Design,Alfred V.Aho, Jeffrey D.Ullman , Narosa Publishing House.25th Reprint, 2001.

Unit I : Chapters 1.1 – 1.11, 3.1 – 3.6

Unit II : Chapters 4 & 5

Unit III : Chapters 7.1 – 7.9 , & 9

Unit IV : Chapters 10(excluding 10.3) & 11

Unit V : Chapters 12 & 15

Reference Books :

1. Compiler Principles, Techniques and Tools by Alfred V.Aho, Monica S.Lam, Ravi Sethi, Jeffrey D. Ullman, Second edition, Pearson Publications, 2007.

2. Advanced Compiler Design and Implementation - Steven S. Muchnick, Morgan Kaufmann Publishers - Elsevier Science, India, Indian Reprint 2003.

3. Introduction to Compiler Techniques, J.P. Bennet, Second Edition, Tata

402 McGraw-Hill, 2003.

COURSE PLAN- VI SEMESTER 2021-22

S No	HOURS	TOPIC	BOOK	TEACHING MODE	PAGE NO
		UNIT-1			
1	1	Introduction to Compliers: Compliers and Translator – Need of Translator	T1	BB & LM	1-3
2	1	The structure of a Complier	T1	BB & LM	5
3	1	Lexical analysis	T1	PPT	10
4	1	Syntax analysis	T1	BB & LM	12

5	1	Intermediate code generation	T1	BB & LM	13
6	1	Optimization	T1	BB & LM	17
7	1	Code generation	T1	BB & LM	19
8	1	Book Keeping	T1	BB & LM	20
9	1	Error handling, Compiler-Writitng tools	T1	BB & LM	21
10	1	Revision			
11	1	Test chapter 1			
12	1	The Role of Lexical Analysis	T1	BB & LM	74
13	1	A Simple Approach to the Design Lexical Analyzers	T1	BB & LM	76
14	1	Regular Expression	T1	BB & LM	82
15	1	Finite Automata	T1	BB & LM	88
16	1	Finite Automata	T1	BB & LM	92
17	1	Minimizing the number states of DFA	T1	BB & LM	99
18	1	REVISION			
19	1	TEST CHAPTER 3(UNIT I)			
UNIT-2					
20	1	Context Free Grammers	T 1	BB & LM	126
21	1	Derivations and Parse trees	T1	BB & LM	129
22	1	Capabilities of context-free grammers	T1	BB & LM	132
23	1	Capabilities of context-free	T1	BB & LM	136

		grammers			
24	1	Revision Chapter 4			
25	1	Test Unit 2			
26	1	Parsers	T1	BB & LM	146
27	1	Shift-reduce parsing	T1	BB & LM	150
28	1	Operator-precedence parsing	T1	BB & LM	158
29	1	Top-down parsing	T1	PPT	174
30	1	Predictive parser	T1	BB & LM	184
31	1	TEST UNIT 2/ UNIVERSITY QUESTIONS			
UNIT-3					
32	1	Syntax- translation directed schemes	T1	BB & LM	246
33	1	Implementation of syntax-directed translators	T1	BB & LM	249
34	1	Intermediate code	T1	BB & LM	254
35	1	Postfix Notation	T1	BB & LM	254
36	1	Parser trees syntax trees	T1	BB & LM	258
37	1	Revision Chapter 7		BB & LM	
38	1	Three-address code,Quadruples,and Triples	T1	BB & LM	259
39	1	Translation and assignment statements	T1	BB & LM	265
40	1	Boolean expression	T1	PPT	271

41	1	Statements that alter the flow of control	T1	BB & LM	281
42	1	The contents of a symbol table(SEMINAR)	T1	BB & LM	328
43	1	Revision Chapter 7			
44	1	Data structures for symbol tables	T1	BB & LM	336
45	1	Representing scope information	T1	BB & LM	341
46	1	Assignment Based on 3 rd Unit/ Test Unit 3			
47	1	ICT CLASS(Boolean expression)			
UNIT-4					
48	1	Implementation simple stack allocation scheme	T1	BB & LM	351
49	1	Implementation of block - Structured Languages	T1	BB & LM	356
50	1	Storage Allocation in block – structured Languages	T1	BB & LM	377
51	1	Revision Chapter 10			
	1	TEST CHAPTER 10			
52	1	Errors	T1	BB & LM	382
53	1	Lexical-phase errors	T1	BB & LM	388
54	1	Syntactic-phase errors	T1	BB & LM	391
55	1	Semantic error	T1	PPT	402
56	1	Revision Chapter 11			

57	1	Assignment Based on 4 th Unit			
58	1	TEST CHAPTER 11			
59	1	Report writing			
60	1	UNIVERSITY QUESTIONS			
61	1	ICT CLASS(Semantic error)			
62	1	TEST UNIT 4			
UNIT-5					
60	1	The principle sources of optimization	T1	BB & LM	408
61	1	Loop optimization	T1	BB & LM	410
62	1	The DAG representation of basic blocks	T1	BB & LM	418
63	1	Value number and algebraic laws	T1	BB & LM	427
64	1	Global data –flow analysis	T1	PPT	429
65	1	Revision Chapter 12			
66	1	Object programs(Seminar)	T1	BB & LM	518
67	1	Problems in code generation	T1	BB & LM	521
68	1	A Machine model(SEMINAR)	T1	BB & LM	523
71	1	Internal assessment			
72	1	Revision Chapter 15			
73	1	Test Important Subjective 7m Questions (All Units)			
74	1	Test Important Subjective 10m Questions (All Units)			

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75	1	Mock Test 1/ UNIVERSITY QUESTIONS			

Sign Of Faculty:	**Sign Of HOD:**
Sign Of Dean Academics :	

LESSON PLAN

PROGRAMME: III B.Sc., COMPUTER SCIENCE	**SEMESTER/ YEAR: VI/2021-22**
COURSE: QUANTITATIVE APTITUDE	**COURSE CODE: SCSJS61**
FACULTY 'S NAME: J.RANINANDHINI P. KALAISELVI P.S.BOOMIKA	**TOTAL HOURS: 30 Hrs**

SYLLABUS

Objectives:

This course is designed to

- To enable the students to learn basic mathematical concepts required for quantitative aptitude and to solve a question in a fraction of minute by using short-cut methods.
- Students will be able to solve questions asked in quantitative aptitude in a fraction of minute.

COURSE OUTCOME:

CO1: Apply Mathematical tricks to find LCM &HCF of Numbers and Decimal Fractions.

CO2: Analyse about Cube roots, square roots and Average of numbers.

CO3: Acquire the knowledge of Percentage and Distinguish between profit and loss.

CO4: Analyse about Time and work, Time and distance.

CO5: Distinguish between Simple Interest and Compound Interest.

SYLLABUS

UNIT I

Numbers - HCF and LCM of Numbers - Decimal Fractions.

UNIT II

Square roots and Cube roots - Average - Problems on ages**.**

UNIT III

Percentage - Profit and Loss – Ratio and Proportions.

UNIT IV

Time and work – Time and distance.

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UNIT V

Simple Interest - Compound Interest.

Text Book:

S No	HOURS	TOPIC	BOOK	TEACHING MODE	BOOK PAGE NO	MATERIAL PAGE NO
	UNIT-1					
1	2 hrs	Numbers	T1	BB	3-29	1-15
2	2 hrs	HCF of Numbers	T1	BB	30-37	16-19
3	1 hr	LCM of Numbers	T1	BB	38-45	20-23
4	1 hr	Decimal Fractions	T1	BB	46-66	24-34
5		UNIVERSITY QUESTIONS				
6	1 hr	ICT CLASS		Prepare the PPT in Exercise Problems.	**Topic:** HCF & LCM	
7		TEST				

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	UNIT-2					
8	2 hrs	Square roots	T1	BB	117-125	35-39
9	1 hr	Cube roots	T1	BB	126-138	40-46
10	2 hrs	Average	T1	BB	139-155	46-54
11	1 hr	Problems on ages	T1	BB	182-189	55-58
12		UNIVERSITY QUESTIONS				
13		ICT CLASS				
14	1 hr	TEST				
	UNIT-3					
15	2 hrs	Percentage	T1	BB	208-230	59-80
16	1 hr	Profit and Loss	T1	BB	251-286	80-98
17	1 hr	Ratio and Proportions	T1	BB	294-310	99-107
18		UNIVERSITY QUESTIONS				
19	1 hr	ICT CLASS		Maths Shortcuts videos in YouTube.	Profit and Loss: https://youtu.be/OocoU45-wt1	
20		TEST				
	UNIT-4					
21	1 hr	Time and work	T1	BB	341-365	108-120
22	2 hrs	Time and distance	T1	BB	384-400	121-131
23		UNIVERSITY QUESTIONS				
24	1 hr	ICT CLASS		Maths shortcut video in YouTube.	Time and work: https://youtu.be/EVTHDwzU4rQ	
25	1 hr	TEST				
	UNIT-5					

26	2 hrs	Simple Interest	T1	BB	445-465	132-141
27	2 hrs	Compound Interest	T1	BB	466-480	142-149
28	1 hr	UNIVERSITY QUESTIONS		Question Bank	Discussion	
29	1 hr	ICT CLASS		Prepare the PPT in Exercise Problems.	**Topic:** Compound Interest	
30		TEST				

Quantitative Aptitude-- Dr. R.S.Aggarwal S.Chand& Company Pvt. Ltd, 2015

Reference Books:

1. Quantitative Aptitude and Reasoning, R.V.Parwin,PHI,Learning, Second Edition -2013 2.Magical Book on Quicker maths, M.TYRA, BSC Publications,CO, Private Limited,Delhi, Reprint 2011.

2. Quantitative Aptitude for Competitive Exam – Abhijit Guha 4th Edition TATA Mchil, company New Delhi.

Sign of HOD:	Sign of Faculty:
Sign of Dean Academics:	

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COURSE PLAN- VI-SEMESTER 2021-22

LESSON PLAN

PROGRAMME: B.Sc.	**SEMESTER-6/ YEAR: 2020-21**
COURSE: Fundamentals of Physics-II	**COURSE CODE: SPHJN61**
FACULTY 'S NAME: Dr. M. Sinduja, **Mrs. G. Jenifer,** **Ms. B. Sivarnjani**	**TOTAL HOURS: 30 hrs** **Credit: 2**

SYLLABUS

Objectives:

This course is designed for the Students gain knowledge about basic laws, DC sources and DC generators, Remembering the concept in an AC current generation, Impart knowledge in simpleelectrical circuits and measurements of electric power.

COURSE OUTCOME:

CO1: Impart knowledge about the basic concepts of electrical quantities using basic circuit lawsCO2: Get an idea on the construction and operation of batteries and their classification

CO3: Learn to understand the generation of power from sources and their voltage, current valuesCO4: Learn the working of energy meter, choke coil, wattles current and power factor

CO5: Understand the basic properties of electrical elements

Unit I

Electric current- voltage and resistance- Ohm's Law- Kirchoff's law- Resistance in series and parallel

Unit II

DC source- Primary cells- Lechlanche and Daniel cells- Secondary cells – Lead acid accumulator- DCgenerator

Unit III

Alternating current generation by hydro, thermal and atomic power stations- RMS value- Peak value(quantitative)- AC generator (no derivation)

Unit IV

Measurement of electric power by wattmeter- simple calculations- induction coil- wattles current-power factor

Unit V

Simple electrical circuits- resistor, capacitor and inductor connected to ac source (independently)-Relationship between emf and current in each case. Diode- bridge rectifier

Text Book:

T1. Electricity and magnetism – R. Murugesan- S. Chand and Co, 2004

Reference

R1: Basic electrical engineering- V. K. Mehta- S. chand

Teaching mode: BB (Black board teaching), PPT (power point presentation)

COURSE PLAN- VIst SEMESTER 2020-21

S No	HOURS	TOPIC	BOOK	TEACHING MODE
	UNIT-1			
1	1	Electric current, voltage and resistance, Ohm's law	T1 (85-87)	BB
2	1	Kirchoff's law	T1 (90)	PPT
3	1	Resistance in series and parallel	R1 (37, 41)	BB
4	1	UNIVERSITY QUESTIONS		

		ICT CLASS		
		TEST		
		UNIT-2		
5	1	DC source, Primary cells- Leclanche celland Daniel cell	R1 (491), T1 (126)	BB
6	1	Secondary cell- Lead acid accumulator	T1 (122)	PPT
7	1	DC generator	T1 (245)	BB
8	1	UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
		UNIT-3		
9	1	Alternating current generation by hydro,	T1 (209)	PPT
		thermal and atomic power stations		
10	1	RMS value and peak value	T1 (210)	BB
11	1	AC generator	T1 (244)	BB
12	1	UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
		UNIT-4		
13	1	Measurement of electric power by	T1 (441)	PPT

		Wattmeter		
14	1	Simple calculations	T1 (443)	BB
15	1	Induction coil, wattless current, power factor	T1 (226)	PPT
16	1	UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		
	UNIT-5			
17	1	Simple electric circuits- resistor, capacitor and inductor connected to AC source	T1 (212)	BB
18	1	Relationship between emf and current	T1 (214)	BB
19	1	Diode- bridge rectifier	R1 (154)	BB
20	1	UNIVERSITY QUESTIONS		
		ICT CLASS		
		TEST		

Sign of HOD	Sign of Faculty
Sign of Dean Academics	