TENTATIVE LESSON PLAN: R1921121

Course Title: DISCRETE MATHEMATICAL STRUCTURES		
Section: IT	**Date : 17-08-2020**	**Page No :**00
Revision No :00	**Prepared By: G.Koteswaramma**	**Approved By : HOD**
Tools: Black board		
CO1: Student will be able to demonstrate skills in solving mathematical problems.		

No. of Periods	TOPIC	DATE	Mode of Delivery
	UNIT – I Mathematical Logic		
1.	Statements, Notations, Connectives, Well defined Formulas	From: 17/08/20 To: 05/09/20	Lecture interspersed with discussions
2.	Truth tables, Tautologies		
3.	Equivalence of formulas		
4.	Duality law, Tautological Implications		
5.	Normal forms		
6.	Tutorial class		
7.	Theory of inference for statement calculus		
8.	Consistency of premises		
9.	Indirect method of proof		
10.	Predicative Logic, statement functions		
11.	Tutorial class		
12.	Variables and Quantifiers, free & bound variables		
13.	Inference theory of predicate calculus		
14.	Formulas		
	UNIT-II:SET THEORY		
CO2: Student will be able to demonstrate knowledge of mathematical modeling and proficiency in using mathematical software. CO3:students will be able to manipulate and analyze data numerically using Appropriate software.			
15.	Introduction to sets, operations on Binary sets	From: 07/09/20 To: 30//09/20	Lecture interspersed with discussions
16.	Principle of Inclusion and Exclusion		
17.	Relations, Properties of binary relations		
18.	Relation matrix and Digraph		
19.	Partition and covering, transitive closure		
20.	Tutorial class		
21.	Equivalence relations, compatibility relations,		
22.	Partial ordering relations, Hasse diagram		
23.	Bijective Functions and composition of functions		
24.	Inverse functions, recursive functions, permutation functions		
25.	Equivalence relations, compatibility relations,		
26.	Equivalence relations, compatibility relations,		
27.	Bijective Functions and composition of functions		
28.	Inverse functions, recursive functions, permutation functions		

29.	Algebraic structures: algebraic systems, examples and properties		
30.	Semi groups and monoids, group definitions, examples.		
31.	Homomorphism, Isomorphism		
32.	groups, sub group definitions, examples		
33.	Group, Subgroup, Abelian Group, Homomorphism, Isomorphism		
34.	Properties of integers, division theorem		
35.	GCD, Euclidean algorithm		
36.	LCM, Testing for prime numbers		
37.	The fundamental theorem of Arithmetic		
38.	Modular Arithmetic, Euler and Fermat's theorems		
	UNIT-3: Combinatorics&number theory		Lecture interspersed with discussions
CO4: Student will be able to communicate effectively mathematical ideas results verbally or in Wrting.			
39.	Basics of counting, permutations	From: 01/10/20 To: 19/10/20	
40.	Permutations with Repetitions		
41.	Circular Permutations, Restricted Permutations		
42.	Combinations, Restricted Combinations		
43.	Tutorial Class		
44.	Generating functions of permutations and combinations		
45.	Binomial and multinomial coefficients		
46.	Binomial and multinomial theorems		
47.	Coloring and chromatic numbers		
48.	Pigeonhole Principle and its allpications		
49.	Revision		
	UNIT-4: Recurrence Relations		Lecture interspersed with discussions
CO5: Student will be able to manipulate and analyze data generatically and recurrencingly.			
50.	Generating Functions	From: 19/10/20 To: 31/10/20	
51.	Function of Sequences		
52.	Partial Fractions		
53.	Coefficient of generating functions		
54.	Recurrence relations		
55.	Formulation as recurrence relations		
56.	Recurrence relations by substitution		
57.	Recurrence relations by Generating functions		
58.	Tutorial class		
59.	Recurrence relations by method of characteristics roots		
60.	Inhomogeneous Recurrence relations		
61.	Recurrence relations by Generating functions		
	UNIT-5: Graph Theory		
CO6: Student will be able to manipulate and analyze data graphically using Appropriate software.			
62.	Basic concepts of graphs, sub graphs		
63.	Representation of graphs: Adjacency,		

	Incidence matrices	From: 02/11/20 To: 12/11/20	Lecture interspersed with discussions
64.	Isomorphic graphs		
65.	Paths.circuits, Elerian and Hamiltonian graphs		
66.	Multi graphs, Problems		
67.	Tutorial class		
68.	Planar graphs, Euler's formula		
69.	Chromatic numbers		
70.	Spanning trees, Algorithms for spanning trees.		
71.	Breadth first search algorithms		
72.	Depth first search algorithm		
73.	Krushkal,s algorithm		
74.	Prims algorithm		

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TENTATIVE PLAN: R1921122

Course Title :PRINCIPLES OF SOFTWARE ENGINEERING (R1921122)		
Branch : IT II / I	**Date : 2-11-2020**	**A.Y:2020-2021**
Revision No : 00	**Prepared By : Amritha mishra,Assistant professor**	**Approved By : HOD**

Tools : Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I The Nature of Software **CO1**: Students taking this subject will gain software engineering skills in the following areas **TEXT BOOK:** Software Engineering a practitioner's approach, Roger S. Pressman, Seventh Edition, McGraw Hill Higher Education.			
1,2	The Unique Nature of WebApps	2/11/20, 3/11/20	Lecture interspersed with discussions
3,4	Software Engineering	4/11/20, 6/11/20	
5	The Software Process	7/11/20	
6,7	Software Engineering Practice	9/11/20 10/11/20	
8	Software Myths	11/11/20	
9	How It All Starts	13/11/20	
10,11	A Generic Process Model	14/11/20, 16/11/20	
12	Process Assessment and Improvement	17/11/20	
13	Prescriptive Process Models	18/11/20	
14,15	Specialized Process Models,	19/11/20, 20/11/20	
16	The Unified Process,	23/11/20	
17	Personal and Team Process Models	24/11/20	
18	Process Technology.	25/11/20	
19	Tutorial	26/11/20	

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-II Agility **CO2:** Transform an Object-Oriented Design into high quality, executable code **TEXT BOOK:**Software Engineering a practitioner's approach, Roger S. Pressman, Seventh Edition, McGraw Hill Higher Education.			
20,21	Agility and the Cost of Change, Agile Process	27/11/20 30/11/20	Lecture interspersed with discussions
22,23	Extreme Programming (XP), Other Agile Process Models	1/12/20 2/12/20	
24,25	A Tool Set for the Agile Process, Software Engineering Knowledge	3/12/20 4/12/20	
26	Core Principles, Principles That Guide Each Framework Activity	7/12/20	

27	Requirements Engineering, Establishing the Groundwork,	8/12/20	
28	Eliciting Requirements, Developing Use Cases	9/12/20	
29,30	Building the Requirements Model, Negotiating Requirements	10/12/20 11/12/20	
31	Validating Requirements.	14/12/20	
32	**Tutorial**	15/12/20	

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-III : Requirements Analysis **CO3:**Skills to design, implement, and execute test cases at the Unit and Integration level **TEXT BOOK:**Software Engineering a practitioner's approach, Roger S. Pressman, Seventh Edition, McGraw Hill Higher Education.			
33	Requirements Analysis, Scenario-Based Modeling,	16/12/20	Lecture interspersed with discussions
34,35	UML Models That Supplement the Use Case	17/12/20 18/12/20	
36,37	Data Modeling Concepts,	21/12/20 22/12/20	
38	Class-Based Modeling	23/12/20	
39	Requirements Modeling Strategies	24/12/20	
40	Flow-Oriented Modeling	28/12/20	
41,42	Creating a Behavioral Model	29/12/20 30/12/20	
43	Patterns for Requirements Modelling	31/12/20	
44	Requirements Modeling for WebApps.	4/01/21	
45	**Tutorial**	5/01/21	

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-IV :Design within the Context of Software Engineering **CO4: Compare conventional and agile software methods** **TEXT BOOK:**Software Engineering, Ian Sommerville, Ninth Edition, Pearson			
46,47	Design within the Context of Software Engineering	6/01/21 7/01/21	Lecture interspersed with discussions
48	The Design Process, Design Concepts	8/01/21	
49	The Design Model, Software Architecture	11/01/21	
50	Architectural Genres,	18/01/21	
51,52	Architectural Styles	19/01/21 20/01/21	
53	Assessing Alternative Architectural Designs	21/01/21	
54	Architectural Mapping Using Data Flow	22/01/21	
55	What Is a Component?,	25/01/21	
56,57	Designing Class-Based Components	27/01/21 28/01/21	

P58	Conducting Component-Level Design	29/01/21	
59,60	Component-Level Design for WebApps	01/02/21 02/02/21	
61	Case Study An ATM	02/02/21	
62	Designing Traditional Components, Component-Based Development.	03/02/21	
63	Tutorial	04/02/21	

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-V : The Golden Rules **CO5: Compare conventional and agile software methods** **TEXT BOOK:** **Software Engineering, Ian Sommerville, Ninth Edition, Pearson**			
64,65	User Interface Analysis and Design, Interface Analysis	04/02/21 05/02/21	Lecture interspersed with discussions
66,67	Interface Design Steps, WebApp Interface Design	06/02/21 08/02/21	
68	Design Evaluation, Elements of Software Qualtiy Assurance	09/02/21	
69,70	SQA Tasks, Goals & Metrics, Statistical SQA, Software Reliability	10/02/21 11/02/21	
71	A Strategic Approach to Software Testing, Strategic Issues	12/02/21	
72,73	Test Strategies for Conventional Software, Test Strategies for Object-Oriented Software	15/02/21 16/02/21	
74	Test Strategies for WebApps,	17/02/21	
75	Validation Testing, System Testing,	18/02/21	
76	White-Box Testing, Basis Path Testing	19/02/21	
77	Tutorial	20/02/21	

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TENTATIVE LESSON PLAN: R1921053

Course Title: PYTHON PROGRAMMING		
Branch : IT Year / Sem : II/I	Date : 2-11-2020	Page No : 01 of 03
Revision No : 00	Prepared By : G.SRILAKSHMI	Approved By : HOD

Tools : Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I Introduction, Data Types, and Expression, Decision Structures and Boolean Logic **CO1:** Develop essential programming skills in computer programming concepts like data types, containers **TEXT BOOK:** 1:Fundamentals of Python First Programs, Kenneth. A. Lambert, Cengage 2:Python Programming: A Modern Approach, VamsiKurama, Pearson			
1	Introduction to Python	2/11/20	Lecture interspersed with discussions
2	Program Development Cycle	3/11/20	
3,4	Input, Processing, and Output, More about Data Output.	4/11/20 5/11/20	
5	Displaying Output with the Print Function, Comments, Variables	6/11/20	
6	Reading Input from the Keyboard	9/11/20	
7	Performing Calculations, Operators	10/11/20	
8	Type conversions, Expressions	11/11/20	
9,10	Strings Assignment, Numeric Data Types	12/11/20 13/11/20	
11	Character Sets, Using functions and Modules	16/11/20	
12	Introduction to Decision Structures and Boolean Logic	17/11/20	
13	if, if-else, if-elif-else Statements,	18/11/20	
14	Nested Decision Structures	19/11/20	
15	Logical Operators, Boolean Variables	20/11/20	
16	Introduction Repetition Structures while loop	23/11/20	
17	for loop, Nested Loops	24/11/20	
18	Calculating a Running Total, Input Validation Loops	25/11/20	
19	Tutorial	26/11/20	

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-II Control Statement, Strings and Text Files **CO2:** Apply the basics of programming in the Python language **TEXT BOOK:** 1:Fundamentals of Python First Programs, Kenneth. A. Lambert, Cengage 2:Python Programming: A Modern Approach, VamsiKurama, Pearson			
19,20	Definite iteration for Loop Formatting Text for output	27/11/20 30/11/20	Lecture interspersed with discussions
21,22	Definite iteration for Loop Formatting Text for output	1/12/20 2/12/20	
23, 24	Conditional Iteration The While Loop	3/12/20 4/12/20	
25	Introduction to Strings and Text Files	7/12/20	
26	Accessing Character and Substring in Strings	8/12/20	
27	Data Encryption	9/12/20	
28,29	Strings and Number Systems	10/12/20 11/12/20	
30	String Methods Text Files	14/12/20	
31	**Tutorial**	15/12/20	
UNIT-III : List and Dictionaries, Design with Function, Modules **CO3:** Solve coding tasks related conditional execution, loops **TEXT BOOK:** 1:Fundamentals of Python First Programs, Kenneth. A. Lambert, Cengage 2:Python Programming: A Modern Approach, VamsiKurama, Pearson			
32	Introduction to Lists	16/12/20	Lecture interspersed with discussions
33, 34	Defining Simple Functions	17/12/20 18/12/20	
35,36	Introduction to Dictionaries	21/12/20 22/12/20	
37	Design with Function	23/12/20	
38	Design with Recursive Functions	24/12/20	
39	Case Study Gathering Information from a File System	28/12/20	
40,41	Managing a Program's Namespace	29/12/20,30/12/20	
42	Higher Order Function	31/12/20	
43	Modules	4/01/21	
44	**Tutorial**	5/01/21	

UNIT-IV File Operations, Object Oriented Programming, Design with Classes

CO4:

Solve coding tasks related to the fundamental notions and techniques used in object-oriented programming

TEXT BOOK:

1:Fundamentals of Python First Programs, Kenneth. A. Lambert, Cengage

2:Python Programming: A Modern Approach, VamsiKurama, Pearson

45, 46	File Operations	6/01/21,7/01/21	Lecture interspersed with discussions
47	Programming using file operations	8/01/21	
48	Object Oriented Programming	11/01/21	
49	Real time use of class in live projects	18/01/21	
50,51	Inheritance	19/01/21,20/01/21	
52	overlapping and overloading operators	21/01/21	
53	Adding and retrieving dynamic attributes	22/01/21	
54	Programming using Oops support	25/01/21	
55,56	Design with Classes	27/01/21,28/01/21	
57	Objects and Classes	29/01/21	
58,59	Data modeling Examples	01/02/21,02/02/21	
60	Case Study An ATM	02/02/21	
61,62	Structuring Classes with Inheritance and Polymorphism	03/02/21,03/02/21	
63	Tutorial	04/02/21	
No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**

UNIT-V : Errors and Exceptions, Graphical User Interfaces

CO5: Solve coding tasks related to Graphical User Interfaces

TEXT BOOK:

1:Fundamentals of Python First Programs, Kenneth. A. Lambert, Cengage

2:Python Programming: A Modern Approach, VamsiKurama, Pearson

64,65	Errors and types of Errors	04/02/21,05/02/21	Lecture interspersed with discussions
66,67	Exceptions, Handling Exceptions	06/02/21,08/02/21	
68	Raising Exceptions	09/02/21	
69,70	User-defined Exception	10/02/21,11/02/21	
71	Defining Clean-up Actions, Redefined Clean-up Actions	12/02/21	
72,73	Graphical User Interfaces	15/02/21,16/02/21	
74	GUI-Based Programs	17/02/21	
75	Introduction to Programming Concepts with Scratch	18/02/21	
76	Tutorial	19/02/21	

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TENTATIVE PLAN: R1921054

Course Title: DATA STRUCTURES		
Branch: IT	**Date: 02-11-2020**	**A.Y:2020-2021**
Revision No: 00	**Prepared By**: Y.V.Nandini	**Approved By:** HOD

Tools: Black board, PPTs

S. No.	Topic	Date	Mode of Delivery
UNIT-I Data Structures, Searching, Sorting **CO1:** Summarize the properties, interfaces, and behaviors of basic abstract data types **CO2**: Discuss the computational efficiency of the principal algorithms for sorting & searching **TB1:** Data Structures Using C. 2nd Edition.Reema Thareja, Oxford. .			
1	Data Structures Introduction	2/11/20	Lecture intersperse d with discussions
2	Definition, Classification of Data Structures	3/11/20	
3	Operations on Data Structures	4/11/20	
4	Abstract Data Type (ADT), Preliminaries of algorithms	5/11/20	
5	Time complexity	6/11/20	
6	Space complexity	7/11/20	
7	Searching Introduction	9/11/20	
8	Linear search	10/11/20	
9	Binary search	11/11/20	
10	Fibonacci search	12/11/20	
11	Insertion sort	13/12/20	
12	Selection sort	14/12/20	
13	Exchange (Bubble sort	16/12/20	
14	Quick sort	17/12/20	
15	Radix sort	18/12/20	
16	Merging (Merge sort)	19/12/20	

UNIT-II:LINKED LIST **CO3:** Use arrays, records, linked structures, stacks, queues, trees, and Graphs in writing programs **TB1:** Data Structures Using C. 2nd Edition.Reema Thareja, Oxford				
17	Linked List: Introduction	21/12/20	Lecture interspersed with discussions	
18	Single linked list,	23/12/20		
19	Representation of Linked list in memory	24/12/20		
20	Operations on Single Linked list-Insertion, Deletion	25/12/20		
21	Applications on Single Linked list: Sparse Matrix Representation	26/12/20		
22	Advantages and Disadvantages of Single Linked list	27/12/20		
23	Double Linked list-Insertion, Deletion	28/12/20		
24	Circular Linked list-Insertion, Deletion	30/12/20		
25	Differences between SINGLE LINKED LIST AND DOUBLE LINKED LIST	1/12/20		
26	Difference between LINKED LIST AND ARRAYS	2/12/20		
27	Polynomial Expression Representation	3/12/20		
UNIT-III:QUEUES AND STACKS **CO3:** Use arrays, records, linked structures, stacks, queues, trees, and Graphs in writing programs **TB1:** Data Structures Using C. 2nd Edition.Reema Thareja, Oxford				
30	Introduction to Queues, Representation of Queues using Arrays, Application of Queues	4/12/20		
31	Representation of Queues using Linked list	7/12/20		
32	Circular Queues	8/12/20		
33	Advantages and disadvantages of queues. Deques	9/12/20		

34	Priority Queues	10/12/20	Lecture interspersed with discussions
35	Multiple Queues	11/12/20	
36	Introduction to Stacks, STACKS ADVANTAGES ,PROPERTIES AND DISADVANTAGES.	12/12/20	
37	Array Representation of Stacks	14/12/20	
38	Linked list Representation of Stacks working	15/12/20	
	Applications-Reversing list, Factorial Calculation	16/12/20	
39	Infix to Postfix Conversion	17/12/20	
40	Evaluating Postfix Expressions.	18/12/20	
41	Advantages and applications of Infix to Postfix	19/12/20	
42	Advantages and applications of Infix to Postfix, ADVANTAGES AND DISADVANTAGES	21/12/20	
43	Applicatons of QUEUES and STACKS	22/12/20	
UNIT-IV Trees **CO3:** Use arrays, records, linked structures, stacks, queues, trees, and Graphs in writing programs **CO4**: Demonstrate different methods for traversing trees **TB2:** Data Structures and algorithm analysis in C, 2nded, Mark Allen Weiss.			
44	Trees Introduction, Terminology in Trees	23/12/20	
45	Trees: Basic, Examples of TREES	26/12/20	
46	Binary Trees Introduction	28/12/20	
47	Differences between Trees and Binary Trees	29/12/20	
48	Binary Trees-Properties	30/12/20	
49	Representation of Binary Trees using Arrays	31/12/20	
50	Representation of Binary Trees using Linked lists	2/1/21	
51	Binary Search Trees Introduction	4/1/21	
52	Differences between Trees and Binary Trees and	5/1/21	

	Binary Search Trees		
53	Basic Concepts, BST Operations	6/1/21	
54	BST Operations: Insertion, Deletion	7/1/21	Lecture interspersed with discussions
55	Tree Traversals: Inorder	8/1/21	
56	Tree Traversals: Preorder	9/1/21	
57	Tree Traversals: Postorder	11/1/21	
58	Applications of Tree Traversals	12/1/21	
59	Expression Trees	18/1/21	
60	Heap sort	19/1/21	
61	Balanced Binary Trees- AVL Trees	20/1/21	
62	AVL Trees	22/1/21	
63	Balanced Binary Trees Insertion, Deletion, Rotations	23/1/21	
UNIT-V Graphs **CO3:** Use arrays, records, linked structures, stacks, queues, trees, and Graphs in writing programs **TB2:** Data Structures and algorithm analysis in C, 2nded, Mark Allen Weiss.			
64	Graphs: Basic Concepts	24/1/21	
65	Representations of Graphs-Adjacency Matrix	1/2/21	
66	Representations of Graphs using Linked list	3/2/21	
67	BFT	5/2/21	
68	DFT	7/2/21	Lecture interspersed with discussions
69	Minimum Spanning Tree	8/2/21	
70	Minimum Spanning Tree Using Prims	9/2/21	
71	Minimum Spanning Tree Using Kruskals Algorithm	12/2/21	
72	Dijkstra's shortest path	13/2/21	
73	Transitive closure	15/2/21	

74	Warshall's Algorithm	16/2/21	

TB:

1) Data Structures Using C. 2nd Edition.Reema Thareja, Oxford.
2) Data Structures and algorithm analysis in C, 2nded, Mark Allen Weiss.

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Tentative Plan:R164212A

Course Title: COMPUTER ORGANIZATION		
Branch : IT **Year/Sem: II/I**	**Date :06-04-2021**	**A.Y:2020-2021**
Revision No :00	**Prepared By : M RAMBHUPAL**	**Approved By : HOD**

Tools : Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
	UNIT- I: Basic Structure of Computers: **CO-1:** Principles and the Implementation of Computer Arithmetic **TB:** Computer System Architecture, M. Morris Mano, Third Edition, Pearson, 2008.		
1	Basic Structure of Computers: Basic Organization of Computers	02-11-2020	Lecture interspersed with discussions
2	Historical Perspective, Bus Structures	04-11-2020	
3	Data Representation: Data types	05-11-2020	
4	Complements,	06-11-2020	
5	Fixed Point Representation+++	09-11-2020	
6	Floating – Point Representation. Other Binary Codes	11-11-2020	
7	Tutorial	12-11-2020	
8	Error Detection Codes	13-11-2020	
9	Computer Arithmetic: Addition and Subtraction	14-11-2020	
10	Computer Arithmetic: Addition and Subtraction	16-11-2020	
11	Multiplication Algorithms,	18-11-2020	
12	Multiplication Algorithms,	19-11-2020	
13	Division Algorithms.	20-11-2020	
	UNIT -II: Register Transfer Language and Microoperations **CO-2:** Operation of CPUs including RTL, ALU, Instruction Cycle and Busses **TB:** Computer System Architecture, M. Morris Mano, Third Edition, Pearson, 2008.		
14	Register Transfer	23-11-2020	

15	Language and Microoperations: Register Transfer language	25-11-2020	
16	Register Transfer Bus and Memory Transfers	26-11-2020	
17	Arithmetic Micro operations	27-11-2020	
18	Logic Micro Operations, Shift Micro Operations,	30-11-2020	
19	**Tutorial**	02-12-2020	
20	Arithmetic Logic Shift Unit. Basic Computer Organization and Design: Instruction Codes	03-12-2020	
21	Computer Register, Computer Instructions,	04-12-2020	
22	Instruction Cycle, Memory – Reference Instructions Input –Output and Interrupt,	07-12-2020	
23	Complete Computer Description,	09-12-2020	
24	Tutorial	10-12-2020	
S. No	**Unit / Topic**	**Taught on (Date)**	

UNIT-III: Central Processing Unit

CO-3: Fundamentals of different Instruction Set Architectures and their relationship to the CPU Design

TB: Computer System Architecture, M. Morris Mano, Third Edition, Pearson, 2008.

25	Central Processing Unit: General Register Organization	11-12-2020	Lecture interspersed with discussions
26	Central Processing Unit: General Register Organization	12-12-2020	
27	STACK Organization	14-12-2020	
28	STACK Organization	16-12-2020	
29	Tutorial	17-12-2020	
30	STACK Organization	18-12-2020	
31	Instruction Formats, Addressing Modes,	21-12-2020	
32	Data Transfer and Manipulation,	23-12-2020	
33	Program Control, Reduced Instruction Set Computer.	24-12-2020	
34	Microprogrammed Control: Control Memory	28-12-2020	
35	Tutorial	30-12-2020	
36	Address Sequencing	31-12-2020	

37	Address Sequencing	02-01-2021	
38	Micro Program example	04-01-2021	
39	Micro Program example	06-01-2021	
40	Micro Program example	07-01-2021	
42	Micro Program example	08-01-2021	

UNIT-IV: Memory System and I/O Organization

CO-4: Memory System and I/O Organization

TB: Introduction to Automata Theory, Languages and Computation, J. E. Hopcroft, R.Motwani and J. D. Ullman, 3rd Edition, Pearson, 2008

43	Design of Control Unit	11-01-2021	Lecture interspersed with discussions
44	Design of Control Unit	18-01-2021	
45	Memory Organization: Memory Hierarchy	20-01-2021	
46	Main Memory, Auxiliary Memory	21-01-2021	
47	Associative Memory	22-01-2021	
48	Cache Memory	23-01-2021	
49	Virtual Memory.	25-01-2021	
50	Input-Output Organization: Peripheral Devices	27-01-2021	
51	Input-Output Interface	28-01-2021	
52	Asynchronous data transfer,	29-01-2021	
53	Modes of Transfer,	30-01-2021	
54	Priority Interrupts,	01-02-2021	
55	Direct Memory Access	03-02-2021	
56	Direct Memory Access	04-02-2021	

UNIT-V: Multi Processors & Pipeline

CO-5: Principles of Operation of Multiprocessor Systems and Pipelining

TB: Introduction to Automata Theory, Languages and Computation, J. E. Hopcroft, R. Motwani and J. D. Ullman, 3rd Edition, Pearson, 2008

57	**UNIT-V** Multi Processors: Introduction	05-02-2021	

58	Characteristics of Multiprocessors	06-02-2021	Lecture interspersed with discussions
59	Interconnection Structures	12-02-2021	
60	Inter Processor Arbitration.	13-02-2021	
61	Pipeline: Parallel Processing	15-02-2021	
62	Tutorial	17-02-2021	
63	Pipelining, Instruction Pipeline	18-02-2021	
64	RISC Pipeline, Array Processor	19-02-2021	
65	Revision	20-02-2021	

Faculty/ Date 6/4/24

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HOD/Date 6/4/24

SRK INSTITUTE OF TECHNOLOGY
Enikepadu, Vijayawada, 521108
Approved by AICTE, Affiliated to JNTUK, Kakinada
(ISO 9001:2015 Certified Institution)
Department of Computer Science and Engineering

TENTATIVE LESSON PLAN: R1921055
OBJECT ORIENTED PROGRAMMING THROUGH C++

Course Title: Object Oriented Programming through C++ (R1921055)		
Section : Sec A	Date : 15/08/2020	Page No : 01 of 03
Revision No : 00	Prepared By : M Sumanth	Approved By : HOD

Tools: Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
Unit-1 Introduction to C++ **CO1: Describe the procedural and object oriented paradigm with concepts of streams, classes, functions, data and objects** **TB:" Programming in C++, Ashok N Kamthane, Pearson 2nd Edition**			
1	Introduction to C++: Difference between C and C++	17/8/20	Lecture interspersed with discussions
2	Evolution of C++	18/8/20	
3	The Object Oriented Technology	19/8/20	
4	Disadvantage of Conventional Programming	21/8/20	
5	Key Concepts of Object Oriented Programming	25/8/20 26/8/20	
6	Advantage of OOP	28/8/20	
7	Object Oriented Language	29/8/20 31/8/20	
8	Tutorial	1/9/20	
UNIT-II: Classes and Objects &Constructors and Destructor **CO2: Understand dynamic memory management techniques using pointers, constructors, destructors** **TB:" Programming in C++, Ashok N Kamthane, Pearson 2nd Edition "**			
9	Classes and Objects &Constructors and Destructor: Classes in C++	2/9/20	Lecture interspersed with discussions
10	Declaring Objects	7/9/20	
11	Access Specifiers and their Scope	8/9/20	
12	Defining Member Function	9/9/20	
13	Overloading Member Function	11/9/20 23/9/20	
14	Nested class, Constructors and Destructors	13/10/20 14/10/20	
15	Introduction, Constructors and Destructor	15/10/20	

polymorphism **TB:" Programming in C++, Ashok N Kamthane, Pearson 2nd Edition "**			
22	Operator Overloading and Type Conversion & Inheritance: The Keyword Operator	22/10/20	Lecture interspersed with discussions
23	Overloading Unary Operator	23/10/20	
24	Operator Return Type	23/10/20	
25	Overloading Assignment Operator (=)	26/10/20	
26	Rules for Overloading Operators	27/10/20	
27	Inheritance, Reusability	28/10/20	
28	Types of Inheritance	29/10/20	
29	Virtual Base ClassesObject as a Class Member	31/10/20	
30	Abstract Classes	2/11/20	
31	Advantages of Inheritance	3/11/20	
32	Disadvantages of Inheritance	4/11/20	
33	Tutorial	29/12/20	
UNIT-IV: Pointers & Binding Polymorphisms and Virtual Functions **CO4: Classify inheritance with the understanding of early and late binding, usage of exception handling, generic programming** **TB:" Programming in C++, Ashok N Kamthane, Pearson 2nd Edition "**			
No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**
34	Pointers & Binding Polymorphisms and Virtual Functions: Pointer	30/12/20	Lecture interspersed with discussions
35	Features of Pointers	31/12/20	
36	Pointer Declaration	18/1/21	
37	Pointer to Class	19/1/21	
38	Pointer Object	19/1/21	
39	The this Pointer	21/1/21	
40	Pointer to Derived Classes and Base Class	21/1/21	
41	Binding Polymorphisms and Virtual Functions	22/1/21	
42	Introduction, Binding in C++	23/1/21	
43	Virtual Functions	23/1/21	
44	Rules for Virtual Function	25/1/21	
45	Virtual Destructor	25/1/21	
46	Tutorial	27/1/21	
UNIT-V: Generic Programming with Templates & Exception Handling **CO5: Demonstrate an understanding of simple Entity-Relationship models for databases** **TB:" Fundamentals of Data Structures in C++, S.Sahni, University Press (India) Pvt.Ltd, 2nd edition, Universities Press, Pvt. Ltd. "**			
47	Generic Programming with Templates & Exception Handling: Definition of class Templates	28/1/21	Lecture interspersed with discussions
48	Normal Function Templates	29/1/1	
49	Over Loading of Template Function	29/1/21	
50	Bubble Sort Using Function Templates	30/1/21	
51	Difference between Templates and Macros	1/2/21	

52	Linked Lists with Templates	2/2/21	
53	Exception Handling	3/2/21	
54	Principles of Exception Handling	4/2/21	
55	The Keywords try throw and catch	5/2/21	
56	Multiple Catch Statements	6/2/21	
57	Specifying Exceptions	8/2/21	
58	Overview of Standard Template Library	9/2/21	
59	STL Programming Model	10/2/21	
60	Containers, Sequence Containers	11/2/21	
61	Associative Containers	12/2/21	
62	Algorithms, Iterators	12/2/21	
63	Vectors, Lists, Maps	14/2/21	
64	Tutorial	14/2/21	

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TENTATIVE PLAN:

Course Title: HUMAN COMPUTER INTERACTION (R1631121)		
Branch : IT Year/Sem : III/I	Date : 02/11/20	A.Y:2020-2021
Revision No : 00	Prepared By : Y.V.Nandini	Approved By : HOD

Tools : Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT –I The User Interface			
CO1: Students are assessed on their ability to communicate and apply UCD methods in the capstone project course. Assessment includes examination of team reports and how HCI students can discuss challenges and solutions for adapting UCD methods to fit the practical needs of an actual project **TB :** Wilbert O. Galitz, "The Essential Guide to User Interface Design", Wiley India Edition			
1	Introduction to HCI	02/11/20	Lecture interspersed with discussions
2	Importance of the User Interface	3/11/20	
3.	Importance and benefits of Good Design	5/11/20	
4.	History of Human Computer Interface	6/11/20	
5.	Characteristics of Graphical and Web User Interface, Graphical User Interface	7/11/20	
6.	popularity of graphics	9/11/20	
7.	concepts of Direct Manipulation	10/11/20	
8.	Graphical System advantage and disadvantage	11/11/20	
9.	Characteristics of GUI, Web User Interface	12/11/20	
10.	popularity of web	13/12/20	
11.	Characteristics of Web Interface	14/12/20	
12	Merging of Graphical Business systems& the Web	16/12/20	
13	Principles of User Interface Design	17/12/20	
UNIT –II The User Interface Design Process			
CO2:. Students are assessed on their ability to communicate and apply UCD methods in the capstone project course. Assessment includes examination of team reports and how HCI students can discuss challenges and solutions for adapting UCD methods to fit the practical needs of an actual project **TB :** Wilbert O. Galitz, "The Essential Guide to User Interface Design", Wiley India Edition			
14	The User Interface Design Process	18/12/20	Lecture interspersed with discussions
15	Obstacles and Pitfall in the development Process	19/12/20	

16	Usability, The Design Team	20/12/20	
17	Human Interaction with Computers	23/12/20	
18	Important Human Characteristics	24/12/20	
19	Human Consideration in Design	26/12/20	
20	Human Interaction Speeds	27/12/20	
21	Performance versus Preference	28/12/20	
22	Methods for Gaining and Understanding of Users	30/12/20	

UNIT –III Understanding Business Functions

CO3: Students are assessed on their ability to communicate and apply UCD methods in the capstone project course. Assessment includes examination of team reports and how HCI students can discuss challenges and solutions for adapting UCD methods to fit the practical needs of an actual project

TB:

23	Understanding Business Functions Introduction	2/12/20	Lecture interspersed with discussions
24	Business Definitions & Requirement analysis	3/12/20	
25	Determining Business Functions	4/12/20	
26	Design standards or Style Guides	7/12/20	
27	System Training and Documentation	8/12/20	

UNIT - IV Principles of Good Screen Design

CO4 :. Students are assessed on their ability to communicate and apply UCD methods in the capstone project course. Assessment includes examination of team reports and how HCI students can discuss challenges and solutions for adapting UCD methods to fit the practical needs of an actual project

TB : Alan Cooper, Robert Riemann, David Cronin, "Essentials of Interaction Design", Wiley

28	Principles of Good Screen Design Introduction	9/12/20	Lecture interspersed with discussions
29	Human considerations in screen Design	11/12/20	
30	interface design goals, Test for a good design	12/12/20	
31	screen meaning and purpose	14/12/20	
32	Technological considerations in Interface, Interface Design System Menus	15/12/20	
33	Navigation Schemes, Structure of schemes	16/12/20	
34	Functions of navigation schemes.	17/12/20	
35	Context of schemes	18/12/20	
36	Formatting schemes	19/12/20	
37	Phrasing and Selecting schemes, Navigating of Menus	21/12/20	
38	Kinds of Graphical Menus Windows Interface	22/12/20	
39	Windows characteristic	24/12/20	
40	Components of Window	26/12/20	
41	Windows Presentation Styles	28/12/20	
42	Types of Windows	29/12/20	
43	Types of Windows	30/12/20	
44	Window Management, Web systems	2/1/21	

UNIT – V Device and Screen-Based Control

CO5. Students are assessed on their ability to communicate and apply UCD methods in the capstone project course. Assessment includes examination of team reports and how HCI students can discuss challenges and solutions for adapting UCD methods to fit the practical needs of an actual project

TB : Alan Cooper, Robert Riemann, David Cronin, "Essentials of Interaction Design", Wiley

45	Device and Screen-Based Control	4/1/21	Lecture interspersed with discussions
46	Device based controls	5/1/21	
47	Operable Controls	6/1/21	
48	Text entry	7/1/21	
49	read-Only Controls	8/1/21	
50	Section Controls	9/1/21	
51	Combining Entry Controls/ Selection Controls	12/1/21	
52	Other Operable Controls	18/1/21	
54	Presentation Controls	19/1/21	
55	Selecting proper controls	20/1/21	

UNIT - VI Effective Feedback Guidance and Assistance

CO6 : Students are assessed on their ability to communicate and apply UCD methods in the capstone project course. Assessment includes examination of team reports and how HCI students can discuss challenges and solutions for adapting UCD methods to fit the practical needs of an actual project

Ben Shneidermann,"Designing the user interfaces". 3rd Edition, Pearson Education Asia..

56	Effective Feedback Guidance	23/1/21	Lecture interspersed with discussions
57	Assistance Introduction:	1/2/21	
58	Providing the Proper Feedback	2/2/21	
59	Effective Internationalization	3/2/21	
60	Accessibility	4/2/21	
61	International consideration	5/2/21	
62	Accessibility	6/2/21	
63	Create meaningful Graphics	7/2/21	
64	Create meaningful Graphics with icons	8/2/21	
65	Creating Icons	9/2/21	
66	Creating Icons based considerations	10/2/21	
67	Creating Images	12/2/21	
68	Creating Images based considerations	13/2/21	
69	Colors-uses	15/2/21	
70	possible problems with colors	16/2/21	
71	choosing colors	17/2/21	
72	choosing colors based on countries	18/2/21	

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Tentative Plan: (R163052)

Course Title: UNIX AND SHELL PROGRAMMING		
Section : IT	**Date :** 2/11/20	**AY:2020-21**
Revision No : 00	**Prepared By: G D K Kishore**	**Approved By : HOD**

Tools: Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I **Introduction to unix-Brief History-What is Unix-Unix Components-Using Unix-Commands in Unix-Some Basic Commands-Command Substitution-Giving Multiple Commands.** **TB:**Introduction to Unix Shell Programming by M.G.Venkateshmurthy, Pearson.			
1	Introduction to Unix	2/11/20	Lecture interspersed with discussions
2	Brief History	3/11/20	
3	What is Unix-Unix Components	4/11/20	
4	Using Unix-Commands in Unix	5/11/20	
5	Some Basic Commands	6/11/20	
6	Command Substitution	7/11/20	
7	Giving Multiple Commands.	9/11/21	
UNIT-II **The File system –The Basics of Files-What's in a File-Directories and File Names-Permissions-I Nodes-The Directory Hierarchy, File Attributes and Permissions-The File Command knowing the File Type-The Chmod Command Changing File Permissions-The Chown Command Changing the Owner of a File-The Chgrp Command Changing the Group of a File.** **TB:**Introduction to Unix Shell Programming by M.G.Venkateshmurthy, Pearson.			
11	The File system	10/11/20	Lecture interspersed with discussions
12	What's in a File-Directories and File Names	11/11/20	
13	I Nodes	12/11/20	
14	The Directory Hierarchy	13/11/20	
15,16	File Attributes and Permissions	30/11/20, 1/12/20	
17,18	Command knowing the File Type	2/12/20, 3/12/20	
19	Chmod - Changing File Permissions	4/12/20	

20,21	Chown-Changing the Owner	5/12/20, 7/12/20	
22	Chgrp-Changing the Group	8/12/20	
UNIT-III **Using the Shell-Command Line Structure-Met characters-Creating New Commands-Command Arguments and Parameters-Program Output as Arguments-Shell Variables--More on I/O Redirection-Looping in Shell Programs.** TB:The Unix programming Environment by Brain W. Kernighan & Rob Pike			
23	Command Line Structure	11/12/20	Lecture interspersed with discussions
24	Meta characters	14/12/20	
25	New commands	15/12/20	
26	Arguments and Parameters	16/12/20	
27	Output as a Arguments	17/12/20	
28	Shell Variables	18/12/20	
29	classic problems of synchronization	19/12/20	
30	I/O redirection	21/12/20	
31	Looping in shell	22/12/20	
UNIT-IV **Filters-The Grep Family-Other Filters-The Stream Editor Sed-The AWK Pattern Scanning and processing Language-Good Files and Good Filters.** TB:The Unix programming Environment by Brain W. Kernighan & Rob Pike			
32	Filters	28/12/20.	Lecture interspersed with discussions
33	Grep Family	29/12/20	
34	Other Filters	30/12/20	
35	Stream Editor	31/12/20	
36	AWK	2/1/21	
37	**AWK**	4/1/21	
38,39	Good Files and Filters	5/1/21,5/1/21	
UNIT-V **Shell Programming-Shell Variables-The Export Command-The Profile File a Script Run During Starting-The First Shell Script-The read Command-Positional parameters-The $? Variable knowing the exit Status-More about the Set Command-The Exit Command-Branching Control Structures-Loop Control Structures-The Continue and Break Statement-The Expr Command: Performing Integer Arithmetic-Real Arithmetic in Shell Programs-The here Document(<<)-The Sleep Command-Debugging Scripts-The Script Command-The Eval Command-The ExecCommand.** TB:Introduction to Unix Shell Programming by M.G.Venkateshmurthy, Pearson.			
40	Shell Variables	6/1/21	Lecture

41	Export Command	7/1/21	interspersed with discussions
42,43	The Profile File	8/1/21,8/1/21	
44,45	read Command	11/1/21, 12/1/21	
46	Positional parameters	18/1/21,	
47	Set Command	19/1/21	
48,49	Exit Command	20/1/21, 21/1/21	
50,51	Loop Control Structures	22/1/21 23/1/21	
52,53	Continue and Break	25/1/21, 25/1/21	
54	The Expr Command	28/1/21	
55,56	Integer Arithmetic-Real Arithmetic	29/1/21,29,1/21	
57,58	The here Document	30/1/21, 1/2/21	
59	Sleep , Eval , Exec commands	2/2/21,	
60	Tutorial	3/2/21	

UNIT-VI

The Process-The Meaning-Parent and Child Processes-Types of Processes-More about Foreground and Background processes-Internal and External Commands-Process Creation-The Trap Command-The Stty Command-The Kill Command-Job Control.

TB:Introduction to Unix Shell Programming by M.G.Venkateshmurthy, Pearson

61,62	The Process	3/2/21, 4/2/21	Lecture interspersed with discussions
63,64	Parent and Child Processes.	5/2/21, 6/2/21	
65,66	Foreground processes	8/2/21, 8/2/21	
67, 68	Background processes	9/2/21, 10/2/21	
69, 70	free-space management	11/2/21, 12/2/21	
71	Internal Commands	13/2/21	
72	External Commands	15/2/21,	
73	Trap Command,	16/2/21	
74	stty command	17/2/21	
75	Kill	19/2/21	
76	Job Control	20/2/21	

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TENTATIVE PLAN: R1631122

Course Title: Advanced Java Programming (R1631122)		
Branch : IT Year/Sem : III/I	Date : 02/11/20	AY:2020-2021
Revision No : 00	Prepared By : M.Suresh Babu, Asst.Professor	Approved By : HOD

Tools : Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
	UNIT –I Recapitulation of XTML **CO1:** Getting the student to be well trained in Advanced Java Programming skills for an easy entry in the IT Industry. **TB:** Internet and World wide web- How to program, Dietel and Nieto, Pearson.		
1	Introduction to XTML	02/11/20	Lecture interspersed with discussions
2	Introduction to XTML5	3/11/20	
3	Java Swing package	5/11/20	
4	use of System class	6/11/20	
5	Applet Context	7/11/20	
6	signed applet	9/11/20	
7	object serialization	11/11/20	
8	shallow and deep copying	12/11/20	
9	Java collections	13/12/20	
10	Iterators	16/12/20	
11	Array Lists ,	17/12/20	
12	sets –hashset	18/12/20	
13	hash table- queue,	19/12/20	
14	priority queue class	20/12/20	
15	Vector class	21/12/20	
16	Comparable interface.	22/12/20	

No. of Periods	TOPIC	Date	Mode of Delivery
	UNIT –II Java Beans Introduction **CO2:** Getting the student to be well trained in Advanced Java Programming skills for an easy entry in the IT Industry. **TB:** Internet and World wide web- How to program, Dietel and Nieto, Pearson.		
17	Java Beans	23/12/20	Lecture interspersed with discussions
18	Advantages of Java Beans	24/12/20	
19	BDK Introspection,	26/12/20	
20	Using Bound properties,	28/12/20	
21	Bean Info Interface,	28/12/20	
22	Constrained properties Persistence,	29/12/20	
23	Customizers,	29/12/20	
24	Java Beans API	30/12/20	

UNIT –III Introduction to Servelets

CO3: Getting the student to be well trained in Advanced Java Programming skills for an easy entry in the IT Industry.

TB: Internet and World wide web- How to program, Dietel and Nieto, Pearson.

25	Lifecycle of a Serverlet,	31/12/20	Lecture interspersed with discussions
26	JSDK The Servelet API,	02/01/21	
27	The javax.servelet Package,	03/01/21	
28	Reading Servelet parameters,	04/01/21	
29	Reading Initialization parameters.	07/01/21	
30	The javax.servelet HTTP package	08/01/21	
31	Handling Http Request & Responses	10/01/21	
32	Using Cookies-Session Tracking	11/01/21	
33	Servlet chaining-	12/01/21	
34	Security Issues	18/01/21	

UNIT - IV Introduction to JSP The Problem with Servelet

CO4: Getting the student to be well trained in Advanced Java Programming skills for an easy entry in the IT Industry.

TB: Internet and World wide web- How to program, Dietel and Nieto, Pearson.

No. of Period	TOPIC	Date	Mode of Delivery
35	The Anatomy of a JSP Page,	18/01/21	Lecture interspersed with discussions
36	JSP Processing	19/01/21	
37	JSP Application Design	20/01/21	
38	MVC Setting Up	21/01/21	
39	JSP Environment:	23/01/21	
40	Installing the Java Software Development Kit	25/01/21	
41	Tomcat Server & Testing Tomcat	26/01/21	
42	Context of schemes	28/01/21	
43	Formatting schemes	29/01/20	
44	Kinds of Graphical Menus Windows Interface	30/01/21	
45	Windows characteristic	31/01/21	
46	Components of Window	02/02/21	
47	Windows Presentation Styles	04/02/21	
48	Types of Windows	05/02/21	
49	Types of Windows	06/02/21	
50	Window Management	07/02/21	
51	Web systems	08/02/21	

UNIT – V JSP Application Development

CO5. Getting the student to be well trained in Advanced Java Programming skills for an easy entry in the IT Industry.

TB: The Complete Reference, Java 2 , 3ed, Patrik Naughton, Herbert Schildt, TMH.

No. of Period	TOPIC	Date	Mode of Delivery
52	JSP Application Development	08/2/21	Lecture interspersed with discussions
53	Generating Dynamic Content	08/2/21	
54	Using Scripting Elements Implicit JSP Objects	09/2/21	
55	Conditional Processing	10/2/21	
56	Displaying Values Using an Expression to Set an Attribute	11/2/21	
57,58	Declaring Variables and Methods Error Handling and Debugging Sharing Data Between JSP pages	11/2/21	
59	Requests	12/2/21	
60	Users Passing Control and Date between Pages	12/2/21	
61	Sharing Session and Application Data	13/2/21	

UNIT - VI Database Access Database Programming using JDBC

CO6 : Getting the student to be well trained in Advanced Java Programming skills for an easy entry in the IT Industry.Ben Shneidermann,"Designing the user interfaces". 3rd Edition, Pearson Education Asia.

TB: The Complete Reference, Java 2 , 3ed, Patrik Naughton, Herbert Schildt, TMH.

No. of Period	TOPIC	Date	Mode of Delivery
62,63	Database Access Database Programming using JDBC Studying Javax.sql. Package.	13/2/21	Lecture interspersed with discussions
64,65	Accessing MySql database	15/2/21,	
66,67	Accessing MS Access database	16/2/21	
68,69	Accessing a Database from a JSP Page Application	17/2/21	
70,71	Specific Database Actions Deploying JAVA Beans in a JSP Page.	19/2/21	
72,73	Introduction to struts framework.	20/2/21	

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TENTATIVE PLAN: R1631054

Course Title: Data Base Management System (R1631054)		
Branch : IT Year/Sem : III/I	Date : 02/11/20	AY:2020-2021
Revision No : 00	Prepared By : A.Veda Sri	Approved By : HOD

Tools : Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT –I	**An Overview of Database Management** **CO1: Describe a relational database and object-oriented database.** **TB : Introduction to Database Systems, CJ Date, Pearson**		
1.	Introduction- What is Database System, What is Database,Why Database	02/11/20	Lecture interspersed with discussions
2.	Data Independence	03/11/20	
3.	Relation Systems and Others	04/11/20	
4.	The Three Levels of Architecture- The External Level, the Conceptual Level, the Internal Level	05/11/20	
5.	Mapping, Database Administrator	06/11/20	
6.	The Database Management Systems-Client/Server Architecture	07/11/20	

TENTATIVE PLAN: R1631054

Course Title: Data Base Management System (R1631054)		
Section : IT	Date : 02/11/20	AY:2020-2021
Revision No : 00	Prepared By : A.Veda Sri	Approved By : HOD

Tools : Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT –II	**The E/R Models** **CO2: Describe ER model and normalization for database design.** **TB : Introduction to Database Systems, CJ Date, Pearson**		
6.	Introduction to Database Design	09/11/20	Lecture interspersed with discussions
7.	Database Design and Er Diagrams	10/11/20	
8.	Entities Attributes, Entity Sets-Relationship	11/11/20	
9.	Relationship Sets	12/11/20	
10.	Conceptual Design With the Er Models	13/12/20	
11.	Key Constraints	14/12/20	
12.	Foreign Key Constraints,GeneralConstraints	16/12/20	
13	Selection and Projection	17/12/20	
14	Set Operation	18/12/20	
15	Renaming,Joint	19/12/20	
16	Division, More Examples of Queries	20/12/20	
17	Tuple RelationalCalculus	21/12/20	
18	Domain Relational Calculus	23/12/20	

UNIT –III Queries, Constraints, Triggers

CO3: Create, maintain and manipulate a relational database using SQL

TB : . Data base Management Systems, Raghurama Krishnan, Johannes Gehrke, TATA McGraw Hill 3rd Edition

19	The Form of Basic SQL Query	24/12/20	Lecture interspersed with discussions
20	Union	25/12/20	
21	Intersect, Except	26/12/20	
22	Nested Queries	27/12/20	
23	Aggregate Operators	28/12/20	
24	Null Values	30/12/20	
25	Complex Integrity	01/12/20	
26	Constraints in SQL	02/12/20	
27	Comlex Constraints	03/12/20	
28	Triggers and Active Database.	04/12/20	

Course Title: Data Base Management System (R1631054)		
Section : IT	**Date : 02/11/20**	**AY:2020-2021**
Revision No : 00	**Prepared By : A.Veda Sri**	**Approved By : HOD**

Tools : Black board, PPTs

No. of Period	TOPIC	Date	Mode of Delivery
UNIT –IV	**Schema Refinement (Normalization)**		
CO4: Describe ER model and normalization for database design.			
TB : Introduction to Database Systems, CJ Date, Pearson			
29	Introduction to Normalization or schema refinement	07/12/20	Lecture interspersed with discussions
30	Purpose of Normalization	09/12/20	
31	Advantages and disadvantages	10/12/20	
32,33	functional dependency	11/12/20 12/12/20	
34	First normal form	14/12/20	
35	Second normal form	15/12/20	
36	Third normal form	16/12/20	
37	Concept of surrogate key	17/12/20	
39	Boyce-codd normal form(BCNF)	18/12/20	
40,41	Lossless join	19/12/20 21/12/20	
42,43	dependency preserving decomposition	22/12/20 23/12/20	
44	Fourth normal form(4NF)	24/12/20	

UNIT –V Transaction Management and Concurrency Control:

CO5: Understand the role and issues in management of data such as efficiency, privacy, security, ethical responsibility, and strategic advantage

TB : Introduction to Database Systems, CJ Date, Pearson

45	Introduction to Transaction	26/12/20	Lecture interspersed with discussions
46,47	Properties of transactions	28/12/20 29/12/20	
48	Transaction log	30/12/20	
49,50	Transaction management with SQL using commit rollback and savepoint.	31/12/20 02/01/21	
51	Concurrency control for lost updates, uncommitted data	04/01/21	
52	inconsistent retrievals and the Scheduler.	05/01/21	
53,54	Concurrency control with locking methods : lock granularity, lock types	06/01/21 07/01/21	
55	two phase locking for ensuring serializability	8/01/21	
56	Deadlocks	9/01/21	
57	Dead lock prevention	11/01/21	
58	Concurrency control with time stamp ordering : Wait/Die and	12/01/21	
59	Wound/Wait Schemes	18/01/21	
60,61	Database Recovery management	19/01/21 20/01/21	
62	Transaction recovery	22/01/21	

UNIT –VI Overview of Storages and Indexing

CO6: Examine issues in data storage and query processing and can formulate appropriate solutions.

TB : Introduction to Database Systems, CJ Date, Pearson

63	Overview of Storages and Indexing	01/02/21	Lecture interspersed with discussions
64	Data on External Storage	02/02/21	
65,66	File Organization and Indexing	03/02/21 04/02/21	
67	Hash-Based Indexing	05/02/21	
68	Clustered Indexing	07/02/21	
69	Secondary Indexes	08/02/21	
70	Index Data Structures	09/02/21	
71	Tree-Based Indexing	10/02/21	
72	B+tree	12/02/21	
73	Comparison of File Organization	13/02/21	
74	Types of files	15/02/21	
75	Heap and sequential files	16/02/21	

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TENTATIVE PLAN: R1631055

Course Title: Operating Systems (R1631055)		
Section : IT	**Date :** 02/11/20	**Page No :** 01 of 03
Revision No : 00	**Prepared By** : Amritha mishra	**Approved By : HOD**

Tools : Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT –I Introduction to Operating System Concept: **CO1: Design various Scheduling algorithms.** **TB : Operating System Concepts,Abraham Silberschatz, Peter Baer Galvin and Greg Gagne9th Edition, John Wiley and Sons Inc., 2012.**			
1	**Introduction to Operating System Concept:**	02/11/20	Lecture interspersed with discussions
2, 3	Types of operating systems	3/11/20 4/11/20	
4	operating systems concepts,	5/11/20	
5	operating systems services	6/11/20	
6	Introduction to System call, System call types.	7/11/20	

TENTATIVE PLAN: R1631055

Course Title: Operating Systems (R1631055)		
Section : IT	**Date :**	**Page No :** 01 of 03
Revision No : 00	**Prepared By** : Amritha mishra	**Approved By : HOD**

Tools : Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT –II Process Management **CO2: Apply the principles of concurrency.** **TB : Operating System Concepts,Abraham Silberschatz, Peter Baer Galvin and Greg Gagne9th Edition, John Wiley and Sons Inc., 2012.**			
7	**Process Management –**	9/11/20	Lecture interspersed with discussions
8	Process concept,	10/11/20	
9	The process,	11/11/20	
10	Process State Diagram	13/12/20	
11	Process controlblock,	16/12/20	
12	Process Scheduling	17/12/20	
13	Scheduling Queues, Schedulers,	18/12/20	
14	Operations on Processes, Interprocess Communication	19/12/20	
15	Threading Issues, Scheduling-Basic Concepts	20/12/20	
16	Scheduling Criteria,	21/12/20	
17	Scheduling Algorithms	23/12/20	
UNIT – III **Memory Management:** **CO3: Compare and contrast various memory management schemes.** **TB : . Operating System Concepts,Abraham Silberschatz, Peter Baer Galvin and Greg**			

Gagne9th Edition, John Wiley and Sons Inc., 2012.

20,21	Swapping,	24/12/20 25/12/20	Lecture interspersed with discussions
22	Contiguous Memory Allocation	26/12/20	
23	Paging,	27/12/20	
24	structure of thePage Table	28/12/20	
25	Segmentation	30/12/20	
26, 27	Virtual Memory,	1/1/21	
28, 29	Demand Paging	2/1/21	
30,31	Page-Replacement Algorithms	3/1/21	
32	Thrashing	4/1/21	

TENTATIVE PLAN: R1631055

Course Title: Operating Systems (R1631055)		
Section : IT	**Date :**	**Page No :** 01 of 03
Revision No : 00	**Prepared By : Amritha mishra**	**Approved By : HOD**

Tools : Black board, PPTs

No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**
UNIT –IV **IV** 1. **Concurrency:** **2. Principles of deadlock** **CO4: Apply the principles of concurrency.** **Co3 Design deadlock, prevention and avoidance algorithms.** **TB : Operating Systems – Internals and Design Principles, William Stallings, 7th Edition, Prentice Hall, 2011.**			
No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**
33	Process Synchronization,	7/1/21 8/1/21	
34,35	The Critical- Section Problem,	10/1/21	
36,37	Synchronization Hardware, Semaphores,	11/1/21 12/1/21	
38,39	Classic Problems of Synchronization,	14/1/21	
40	Monitors, Synchronization examples	15/1/21	
41,42	**Principles of deadlock** – System Model,	16/1/21 17/1/21	

43,44	Deadlock Characterization,	18/1/21	
45	Deadlock Prevention, ,	19/1/21 21/1/21	
46	Detection and Avoidance	22/1/21 23/1/21	
47,48	Recovery form Deadlock	24/1/21	
UNIT –V	**File system Interface-, File System implementation, Mass-storage structure** **CO5: Design and Implement a prototype file systems.** **TB : Operating Systems-S Halder, Alex A Aravind Pearson Education Second Edition 2016 .**		
49	**File system Interface-**	26/1/21	Lecture interspersed with discussions
50,51	the concept of a file,	28/1/21	
52,53	Access Methods, Directory structure	29/12/20	
54	File system mounting, file sharing, protection.	30/1/21	
55,56	**File System implementation,** File system structure,	31/1/21	
57,58	allocation methods, free-space management	2/2/21	
59,60	**Mass-storage structure**	4/2/21	
61	overview of Mass-storage structure,	5/2/21	
62,63	Disk scheduling,	6/2/21	
64, 65	Device drivers,.	7/2/21	
UNIT –VI	**Linux System- Android Software Platform:** **CO6: Perform administrative tasks on Linux Servers, Introduction to Android Operating System Internals.** **TB : Operating Systems-S Halder, Alex A Aravind Pearson Education Second Edition 2016 .**		
;66	**Linux System**: Components of LINUX,	8/2/21	Lecture interspersed with discussions
67,68	Interprocess Communication,	9/2/21	
69,70	Synchronization, Interrupt	11/2/21	
71, 72	, Exception and System Call.	12/2/21	
73,74	**Android Software Platform**: Android Architecture	18/2/21	
75	,Operating System Services, Android Runtime Application Development	19/2/21	
76	, Application Structure, Application Process management	20/2/21,	

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TENTATIVE LESSON PLAN: R1641051

Course Title: CRYPTOGRAPHY NETWORKS SECURITY		
Section : IT **Year /Sem : IV/I**	**Date : 2-11-2020**	**AY: 2020-21**
Revision No : 00	**Prepared By** :G.SRILAKSHMI, **Assistant Professor**	**Approved By : HOD**

Tools : Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I Basic Principles **CO1:** **Classify various Security attacks ,Services, Mechanisms and Mathematics of Cryptography** **TEXT BOOK:** Cryptography and Network Security, Behrouz A Forouzan, Debdeep Mukhopadhyay,(3e) Mc Graw Hill.			
1	**UNIT:I** Introduction	2/11/2020	Lecture interspersed with discussions
2	Security Goals	3/11/2020	
3	Cryptographic Attacks	4/11/2020	
4	Security Services	6/11/2020	
5	Security Mechanisms	7/11/2020	
6	Techniques	9/11/2020	
7	Integer Arithmetic	10/11/20	
8,9,10	Modular Arithmetic	11/11/20	
	congruence	12/11/20	
	Operation on Z_N	13/11/20	
11,12	Matrices	23/11/20 24/11/20	
13	Linear congruence	25/11/20	
14	Tutorial class	28/11/20	
UNIT-II Symmetric Encryption **CO2:** **Relate Mathematics of Symmetric Key Cryptography and Apply the Symmetric key Cryptography like DES, AES.** **TEXT BOOK:** Cryptography and Network Security, Behrouz A Forouzan, Debdeep Mukhopadhyay,(3e) Mc Graw Hill.			
15	**UNIT:II** Mathematics of Symmetric Key Cryptography	30/11/20	Lecture interspersed with discussions
16	Algebraic Structure	1/12/20	
17	GF Fields	2/12/20	
18	Introduction to Modern Symmetric Key Ciphers	3/12/20	
19	Modern Block Ciphers	3/12/20	
20	Modern Stream Ciphers	14/12/20	

21	Introduction Data Encryption Standard	15/12/20	
22	DES Structure	16/12/20	
23	DES Analysis	17/12/20	
24	Multiple DES, Security of DES	18/12/20	
25	Advanced Encryption Standard	19/12/20	
26	Transformations	21/12/20	
27	Key Expansion	22/12/20	
28	Ciphers, Examples, Analysis of AES	23/12/20	
29	Tutorial	24/12/20	

UNIT-III: Asymmetric Encryption

CO3:

Relate Mathematics of Asymmetric Key Cryptography and Apply the Asymmetric key cryptography

TEXT BOOK:

Cryptography and Network Security, Behrouz A Forouzan, Debdeep Mukhopadhyay,(3e) Mc Graw Hill.

30	**UNIT-III** Asymmetric Encryption	26/12/20	Lecture interspersed with discussions
31,32	Mathematics of Asymmetric Key Cryptography: **PRIMES**	28/12/20 29/12/20	
33	Primality Testing	30/12/20	
34	Factorization	31/12/20	
35	Chinese Remainder Theorm	2/01/21	
36,37	Quadratic Congruence	4/01/21 5/01/21	
38,39	Asymmetric Key Cryptography	6/01/21 7/01/21	
40	Tutorial	9/01/21	

UNIT-IV Data Integrity, Digital Signature Schemes & Key Management

CO4:

Make use of Data Integrity, Digital Signature Schemes & Key Management for verifying the authenticity of digital messages

TEXT BOOK:

Cryptography and Network Security, Behrouz A Forouzan, Debdeep Mukhopadhyay,(3e) Mc Graw Hill.

41,42	**UNIT:IV** Message Integrity and Message Authentication	11/01/21 12/01/21	Lecture interspersed with discussions
43,44	Cryptographic Hash Functions	18/01/21 19/01/21	
45	Digital Signature	20/01/21	
46,47	Key Management	21/01/21 23/1/21	
48	Tutorial	25/1/21	

Course Title: CRYPTOGRAPHY NETWORKS SECURITY		
Section : IT **Year /Sem : IV/I**	**Date : 2-11-2020**	**AY: 2020-21**
Revision No :	**Prepared By :G.SRILAKSHMI, Assistant Professor**	**Approved By : HOD**

Tools : Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-V Network Security-I **CO 5:** Select protocols like PGP,S/MIME in Application layer and SSL,TLS in Transport layer to Secure the Network during data transmission **TEXT BOOK:** Cryptography and Network Security, Behrouz A Forouzan, Debdeep Mukhopadhyay,(3e) Mc Graw Hill.			
49,50	**UNIT-V:** Network Security-I	27/1/21 28/1/21	Lecture interspersed with discussions
51,52	Security at application layer	29/1/21 30/1/21	
53	PGP	1/2/21	
54	S/MIME	2/2/21	
55	Security at the Transport Layer	3/2/21	
56,57	SSL	4/2/21 5/2/21	
58	TLS	8/2/21	
59	Tutorial	9/2/21	
UNIT-VI Network Security-II **CO6:** **Select protocols like PGP,S/MIME in Application layer and SSL,TLS in Transport layer to Secure the Network during data transmission** **TEXT BOOK:** Cryptography and Network Security, Behrouz A Forouzan, Debdeep Mukhopadhyay,(3e) Mc Graw Hill.			
60,61	**UNIT- VI**: Network Security-II	10/2/21 11/2/21	Lecture interspersed with discussions
62,63	Security at the Network Layer	12/2/21 15/2/21	
64,65	IPSec	16/2/21 17/2/21	
66,67,68	System Security	18/2/21 19/2/21 19/2/21	
69	Tutorial	20/2/21	

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Tentative Plan:R164105C

Course Title: MOBILE COMPUTING		
Section : IT **Year/Sem: IV/I**	**Date :02-11-2020**	**A.Y:2019-2020**
Revision No :	**Prepared By : M RAMBHUPAL**	**Approved By : HOD**

Tools : Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT-I: Introduction: Mobile Communications, & GSM **CO-1:**To make the student understand the concept of mobile computing paradigm, its novel applications and limitations. **TB**:. Jochen Schiller, "Mobile Communications", Addison-Wesley, Second Edition, 2009			
1	**Introduction:** Mobile Communications	02-11-2020	Lecture interspersed with discussions
2	Mobile Computing – Paradigm,	03-11-2020	
3	Promises/Novel Applications	04-11-2020	
4	Impediments and Architecture	05-11-2020	
5	Mobile and Handheld Devices	06-11-2020	
6	Limitations of Mobile and Handheld Devices.	07-11-2020	
7	GSM – Services, System Architecture	09-11-2020	
8	Radio Interfaces	10-11-2020	
9	Protocols, Localization	11-11-2020	
10	Calling, Handover,	12-11-2020	
11	Security,	13-11-2020	
12	New Data Services, GPRS	16-11-2020	
UNIT –II **(Wireless) Medium Access Control (MAC)** **CO-2:** To understand the typical mobile networking infrastructure through a popular GSM protocol **TB**:. Jochen Schiller, "Mobile Communications", Addison-Wesley, Second Edition, 2009			
13	Motivation for a specialized MAC	17-11-2020	
14	Hidden and exposed terminals	18-11-2020	
15	Near and far terminals	19-11-2020	

16	SDMA	20-11-2020	Lecture interspersed with discussions
17	FDMA	21-11-2020	
18	TDMA1	23-11-2020	
19	TDMA2	24-11-2020	
20	TDMA3	25-11-2020	
21	TDMA4	27-11-2020	
22	CDMA1	28-11-2020	
23	CDMA2	30-11-2020	
24	Wireless LAN/(IEEE 802.11)1	01-12-2020	
S. No	**Unit / Topic**	**Taught on (Date)**	
UNIT-III: Mobile Network Layer: **CO-3:** To understand the issues and solutions of various layers of mobile networks, namely MAC layer, Network Layer & Transport Layer **TB**:. Jochen Schiller, "Mobile Communications", Addison-Wesley, Second Edition, 2009			
25	IP and Mobile IP Network Layers,	02-12-2020	Lecture interspersed with discussions
26	IP and Mobile IP Network Layers	03-12-2020	
27	IP and Mobile IP Network Layers	05-12-2020	
28	Packet Delivery	07-12-2020	
29	Handover Management	08-12-2020	
30	Location Management	09-12-2020	
31	Registration,	10-12-2020	
32	Tunneling and Encapsulation1	11-12-2020	
33	Tunneling and Encapsulation2	14-12-2020	
34	Route Optimization,	16-12-2020	
35	Route Optimization,	17-12-2020	
36	Route Optimization,	18-12-2020	
37	DHCP	19-12-2020	
38	Tutorial	21-12-2020	
UNIT-IV: Mobile Transport Layer & Database Issues **CO4** : To understand the database issues in mobile environments & data delivery models. **TB**:. Jochen Schiller, "Mobile Communications", Addison-Wesley, Second Edition, 2009			

39	**Mobile Transport Layer :**	23-12-2020	Lecture interspersed with discussions
40	Conventional TCP/IP Protocols	24-12-2020	
41	Conventional TCP/IP Protocols	28-12-2020	
42	Conventional TCP/IP Protocols	29-12-2020	
43	Indirect TCP	30-12-2020	
44	Indirect TCP	04-01-2021	
45	Snooping TCP	05-01-2021	
46	Snooping TCP	06-01-2021	
47	Snooping TCP	12-01-2021	
48	Mobile TCP,	18-01-2021	
49	Other Transport Layer Protocols for Mobile Networks	19-01-2021	
50	Other Transport Layer Protocols for Mobile Networks	20-01-2021	
51	Tutorial	21-01-2021	
S. No	**Unit / Topic**	**Taught on (Date)**	
UNIT-VI: Mobile Ad hoc Networks (MANETs) : **CO5:** To understand the ad hoc networks and related concepts.. **CO6:** To understand the platforms and protocols used in mobile environment **TB**:. Jochen Schiller, "Mobile Communications", Addison-Wesley, Second Edition, 2009			
52	**UNIT V** **Mobile Ad hoc Networks (MANETs) :** Introduction,	25-01-2021	Lecture interspersed with discussions
53	Applications & Challenges of a MANET	27-01-2021	
54	DSR,	28-01-2021	
55	AODV,	30-01-2021	
56	DSDV	02-02-2021	
57	Mobile Agents, Service Discovery.	03-02-2021	
58	**Protocols and Platforms for Mobile Computing** : WAP,	05-02-2021	
59	Bluetooth, XML, J2ME, JavaCard, PalmOS	06-02-2021	
60	Windows CE, SymbianOS,	08-02-2021	
61	Linux for Mobile Devices,Android	09-02-2021	
S. No	**Unit / Topic**	**Taught on**	

		(Date)	
UNIT-V: Data Dissemination and Synchronization **CO4:** To understand the database issues in mobile environments & data delivery models **TB**:. Jochen Schiller, "Mobile Communications", Addison-Wesley, Second Edition, 2009			
62	**Data Dissemination and Synchronization :** Communications Asymmetry	12-02-2021	Lecture interspersed with discussions
63	Classification of Data Delivery Mechanisms, Data dissemination,	13-02-2021	
64	Broadcast Models, Selective Tuning and Indexing Methods,	15-02-2021	
65	Data Synchronization – Introduction, Software, and Protocols.	16-02-2021	
66	**Database Issues :** Database Hoarding & Caching Techniques,	17-02-2021	
67	Client-Server Computing & Adaptation,	19-02-2021	
68	Transactional Models, Query processing, Data Recovery Process & QoS Issues.	20-02-2021	

Faculty/ Date 21/11/20

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HOD/Date 21/11/20

TENTATIVE PLAN: R1641127

Course Title: DATAWAREHOUSING AND BUSINESS INTELLIGENCE (R1641127)		
Section : IT	Date : 2/11/2020	AY:2020-21 IV - I
Revision No : 00	Prepared By : G D K Kishore	Approved By : HOD

Tools : Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT –I Introduction to Datamining			
CO1: Describe the scope and application of business intelligence and decision support;			
TB : Han, Kamber, "Data Mining Concepts and Techniques", Morgan Kaufmann 2 nd Edition			
	UNIT-I Introduction to Data Mining		,Lecture interspersed with discussions
1,2,3	**About** Data Mining	2/11/2020, 3/11/2020, 4/11/2020	
4,5	Motivation for Data Mining, Data Mining-Definition & Functionalities	6/11/2020, 7/11/2020	
6,7	Classification of DM systems	9/11/2020, 10/11/20	
8,9	DM task primitives	11/11/20, 12/11/20	
10,11,12	Integration of a Data Mining system with a Database or a Data Warehouse	13/11/20, 23/11/20 24/11/20	
13	Major issues in Data Mining	25/11/20	
14	**Data Warehousing:** Overview of concepts like star schema	26/11/20	
15	fact and dimension tables, OLAP operations	28/11/20	
UNIT –II Data Preprocessing			
CO2: Design systems for sourcing and structuring data to provide an integrated, non-volatile collection of data for decision support using data warehouses			
TB : Han, Kamber, "Data Mining Concepts and Techniques", Morgan Kaufmann 2 nd Edition			
16,17	**UNIT-II** Data Preprocessing: Why? Descriptive Data Summarization	30/11/20, 1/12/20	Lecture interspersed with discussions
18,19	Data Cleaning: Missing Values, Noisy Data, Data Integration and Transformation	2/12/20, 3/12/20	
20,21	Data Reduction:-Data Cube Aggregation, Dimensionality reduction	14/12/20, 15/12/20	
22	, Data Compression, Numerosity Reduction ,Data Discretization	17/12/20	
23,24,25	Concept hierarchy generation for numerical and categorical data	18/12/20, 19/12/20 21/12/20	
UNIT –III Mining Frequent Patterns			
CO3: Design multidimensional data models and implement them using star schemas and relational databases			
TB : Han, Kamber, "Data Mining Concepts and Techniques", Morgan Kaufmann 2 nd Edition			
26,27,28	Associations, and Correlations, Market Basket Analysis	22/12/20, 23/12/20, 24/12/20	
29	Frequent items,Closed Itemsets, and Association Rules	26/12/20	Lecture interspersed

30,31	Frequent Pattern Mining	28/12/20 29/12/20	with discussions
32	Efficient and Scalable Frequent Itemset Mining Methods	30/12/20	
33,34	The Apriori Algorithm for finding Frequent Itemsets Using Candidate Generation	31/12/20, 2/01/21	
35,36	Generating Association Rules from Frequent Itemsets, Improving the Efficiency of Apriori	4/01/21 5/01/21	
37,38	Itemsets without Candidate Generation using FP Tree, Mining Multilevel Association Rules, Mining Multidimensional Association Rules	6/01/21 7/01/21	
39,40	From Association Mining to Correlation Analysis, Constraint-Based Association Mining	9/01/21, 9/01/21	

UNIT –IV Classification & Prediction

CO4: Communicate and foster realistic expectations of the role of OLAP technology and business intelligence systems in management and decision support

CO5: Explain the need for evolutionary development approaches to developing business intelligence and data warehouse systems

TB. Han, Kamber, "Data Mining Concepts and Techniques", Morgan Kaufmann 2 nd Edition

No. of Periods	TOPIC	Date	Mode of Delivery
41,42	Issues regarding Classification and prediction	11/01/21 12/01/21	Lecture interspersed with discussions
43,44	**Classification methods**: Decision tree	18/01/21 19/01/21	
45	Bayesian Classification	20/01/21	
46,47	Rule based Prediction	21/01/21 23/1/21	
48	Linear and non linear regression	25/1/21	
49	Accuracy and Error measures	27/1/21	
50	Evaluating the accuracy of a Classifier or Predictor	28/1/21	

UNIT –V Mining Stream and Sequence Data

CO6: Develop a simple business intelligence system using an OLAP tool

CO7: Apply theories and principles of data visualization to encourage high quality analysis of business information to inform decision making

TB : Han, Kamber, "Data Mining Concepts and Techniques", Morgan Kaufmann 2 nd Edition

51,52	Classification, Clustering Association Mining in stream data	29/1/21 30/1/21	Lecture interspersed with discussions
53,54	Mining Sequence Patterns in Transactional Databases, **Spatial Data and Text Mining:** Spatial Data Cube Construction	1/2/21, 1/2/21	
55,56,57	Spatial OLAP, Mining Spatial Association and Co-location Patterns	2/2/21, 2/2/21, 3/2/21	
58,59,60	Spatial Clustering Methods, Spatial Classification and Spatial Trend Analysis	3/2/21, 4/2/21 5/2/21	
61,62	Text Mining Text Data Analysis and Information Retrieval,	6/2/21, 8/2/21,	
63	Tutorial	9/2/21	

UNIT –VI Web Mining

CO1: **CO8:** Design governance mechanisms for the development and management of business intelligence and data warehouse systems in an organization

TB : Han, Kamber, "Data Mining Concepts and Techniques", Morgan Kaufmann 2 nd Edition

64,65	Web Content Mining,	10/2/21 11/2/21	Lecture interspersed with discussions
66,67	Web Structure Mining	12/2/21, 12/2/21	
68	Web Usage mining,	13/2/21,	
69	Automatic Classification of web Documents	15/2/21	
70	**Data Mining for Business Intelligence Applications:** Data mining for business Applications like Balanced Scorecard	16/2/21	
71	Fraud Detection, Click stream Mining	17/2/21	
72	Market Segmentation, retail industry	18/2/21	
73	telecommunications industry,	19/2/21	
74	banking & finance and CRM etc1	19/2/21	

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TENTATIVE LESSION PLAN: R1641054
MANAGERIAL ECONOMICS & FINANCIAL ANALYSIS

Course Title: MANAGERIAL ECONOMICS & FINANCIAL ANALYSIS(R1641054)		
Section : Sec A ~~& B~~	**Date : 17/08/2020** BRANCH - IT	**Page No :** 01 of 03
Revision No : 00	**Prepared By : B.NAVEEN** IV - I	**Approved By : HOD**

Tools : Black board, PPTs,

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT –I	**INTRODUCTION TO MANAGERIAL ECONOMICS**		
CO1: To acquaint the student with basic knowledge of managerial economics, managerial decision areas, basic economics tools, concept of demand, law of demand, elasticity of demand, types of elasticity measurements of elasticity and demand forecasting.			
TB :: A.R.Arya sri, "Managerial Economics & Financial Analysis", 2005, TMH.			
1.	Introduction to Managerial Economics, Definitions, Characteristics of ME	17-08-2020	Lecture interspersed with discussions
2.	Nature and Scope of Managerial Economics	17-08-2020	
3.	Managerial Economics related to Other Areas	18-08-2020	
4.	Basic Economic Tools in ME	18-08-2020	
5.	Introduction to Demand – Meaning & Definition, Features of Demand	19-08-2020	
6.	Determinants of Demand	20-08-2020	
7.	Law of Demand & Its exceptions, Demand Function	21-08-2020	
8.	Introduction to Elasticity of Demand	24-08-2020	
9.	Types of Elasticity of Demand	25-08-2020	
10.	Types of price Elasticity of Demand	26-08-2020	
11.	Measurement of Price Elasticity of Demand	27-08-2020	
12.	Introduction Demand Forecasting	30-08-2020	
13.	Importance of Demand Forecasting	01-09-2020	
14.	Demand Forecasting Methods	03-09-2020 & 04-09-2020	
15.	**Tutorial**	04-09-2020	
UNIT –II	**PRODUCTION, PRODUCTION FUNCTION&COST ANALYSIS**		
CO2: TO acquaint the student with basic knowledge of production, factors of production, various production functions, least cost combinations of inputs, cost concepts, breakeven analysis to avoid losses.			
TB: A.R.Arya sri, "Managerial Economics & Financial Analysis", 2005, TMH.			
16.	Introduction to Production : Meaning & Definition, Production Function	06/09/2020	Lecture interspersed with discussions
17.	Factors of production, production function with one variable factor	06/09/2020	
18.	Law of Variable Proportions	07/09/2020	
19.	Factors of production, production function with two variable factors	10/09/2020	
20.	Concept of Isocosts, Isoquants	09/09/2020	
21.	MRTS, Least Cost Combination	14/09/2020	

No. of Periods	TOPIC	DATE	Mode of Delivery
22.	Cobb-Douglas Production Function	14/09/2020	Lecture interspersed with discussions
23.	Economies of Scale & diseconomies of scale	15/09/2020	
24.	Returns to Scale & returns to factors	15/09/2020	
25.	Concept of cost & Various Cost Concepts	16/09/2020	
26.	Introduction to Break Even Analysis	18/09/2020	
27.	Determination of Break Even Point with Graph	18/09/2020	
28.	Calculation of Break Even Point (BEP) algebraic method	30/09/2020	
29.	**Tutorial**	30/09/2020	
UNIT - III	**MARKETS AND COMPETITION , PRICING POLICIES**		
CO3: Gain knowledge about market, types of markets, competition, price determination under different market conditions, And various pricing methods.			
TB: A.R.Arya sri, "Managerial Economics & Financial Analysis", 2005, TMH.			
30.	Introduction to Markets: Meaning & Definition, Features	01/10/2020	Lecture interspersed with discussions
31.	Types of markets, market structure	02/10/2020	
32.	Price Determination under perfect competition	03/10/2020	
33.	Equilibrium point of firm and industry	05/10/2020	
34.	Price Determination under Monopoly	07/10/2020	
35.	Equilibrium point of firm and industry in monopoly	12/10/2020	
36.	Price Determination under Monopolistic Competition	12/10/2020	
37.	Price Determination under Oligopoly	13/10/2020	
38.	Managerial Theories of the Firm	13/10/2020	
39.	Marries and Williamson theory of firm	14/10/2020	
40.	Pricing, pricing objectives.	14/10/2020	
41.	Various Methods of Pricing	16/10/2020	
UNIT – IV	**FORMS OF BUSINESS ORGANIZATIONS AND BUSINESS CYCLE**		
CO4: TO understand about business, types of business like sole trader ship, partnership, joint stock companies, business cycle.			
TB: A.R.Arya sri, "Managerial Economics & Financial Analysis", 2005, TMH			
42.	Introduction to Business: Definition, Features	16/10/2020	Lecture interspersed with discussions
43.	Sole Proprietorship : Features, Merits, Demerits	17/10/2020	
44.	Partnership : Features, Merits, Demerits,kinds of partners	17/10/2020	
45.	Joint Stock Company : Features, Merits, Demerits	19/10/2020	
46.	Public limited and private limited companies, features	19/10/2020	
47.	Public Enterprises : Features, Merits, Demerits	20/10/2020	
48.	Phases of Business Cycles	20/10/2020 & 21/10/2020	

UNIT – V INTRODUCTION TO FINANCIAL ACCOUNTING

CO5: TO know and understand about accounting process, types of accounts, principles of accounting, preparation of journal, ledger, trail balance and final accounts with

No. of Periods	TOPIC	DATE	Mode of Delivery
49.	Introduction to Accounting : Meaning & Definition, Classification of Accounts	25/10/2020	Lecture interspersed with discussions
50.	Accounting Process	30/10/2020	
51.	Principles of accounting(GAAP)	03/11/2020	
52.	Accounting cycle	03/11/2020	
53.	Preparation of Journal : Problems	04/11/2020	
54.	Preparation of Ledger : Problems	05/11/2020	
55.	Preparation of Trail Balance : Problems	05/11/2020	
56.	Final Accounts (Trading ,profit & loss A/C, Balance Sheet)	06/11/2020	
57.	Final Accounts with Adjustments	06/11/2020	
58.	Treatment of adjustments in preparation of final accounts.	06/11/2020	
59.	Introduction to Financial Statement Analysis: Importance, Objectives.	09/11/2020	Lecture interspersed with discussions
60.	Classification of Ratios : Liquidity Ratios	10/11/2020	
61.	Classification of Ratios : Activity Ratios	12/11/2020	
62.	Classification of Ratios : Solvency Ratios	12/11/2020	
63.	Classification of Ratios :Profitability Ratios	12/11/2020	
64.	Preparation of Changes in Working Capital	13/11/2020	
65.	Preparation of Funds Flow Statement	13/11/2020	
66.	Preparation of Cash Flow Statement	13/11/2020	
67.	Introduction to Capital Budgeting: Meaning, Definition, Need.	14/11/2020	Lecture interspersed with discussions
68.	Methods of Capital Budgeting: Pay Back Period (PBP),	14/11/2020	
69.	Calculation of Accounting Rate of Return (ARR)	15/11/2020	
70.	Calculation of Net Present Value (NPV)	16/11/2020	
71.	Calculation of Internal Rate of Return (IRR)	19/11/2020	
72.	Calculation of Profitability Index	23/11/2020	
73.	Merits and Demerits of Capital Budgeting Techniques.	25/11/2020	
74.	Previous QP problems solution	25/11/2020	

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TENTATIVE PLAN: R164105B

Course Title: INFORMATION RETRIEVAL SYSTEM(R164105B)		
Section : IT	Date : 02/11/20	AY:2020-2021
Revision No : 00	Prepared By : A.Veda Sri	Approved By : HOD

Tools : Black board, PPTs, Moodle

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT –I	**Introduction to Information Storage and Retrieval System**		
CO1: Identify basic theories in information retrieval systems			
TB : Frakes, W.B., Ricardo Baeza-Yates: Information Retrieval Data Structures and Algorithms, Prentice Hall, 1992.			
1.	**Introduction to Information Storage and Retrieval System**	02/11/20	Lecture interspersed with discussions
2.	Domain Analysis of IR SYSTEMS	3/11/20	
3.	Functional view of paradigm IR system	4/11/20	
4.	other types of Information Systems	5/11/20	
5,6	IR System Evaluation	6/11/20 7/11/20	
7	**Introduction to Data Structures and**	9/11/20	
8	Strings and Distance	10/11/20	
9,10	Algorithms related to Information Retrieval	11/11/20 12/11/20	
11,12	Data structures	13/11/20 16/11/20	
13,14	Algorithms	17/11/20 18/11/20	

TENTATIVE PLAN: R164105B

Course Title: INFORMATION RETRIEVAL SYSTEM(R164105B)		
Section : IT	Date : 02/11/20	AY:2020-2021
Revision No : 00	Prepared By : A.Veda Sri	Approved By : HOD

Tools : Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT –II	**Inverted files**		
CO2: Identify the analysis tools as they apply to information retrieval systems			
TB : Frakes, W.B., Ricardo Baeza-Yates: Information Retrieval Data Structures and Algorithms, Prentice Hall, 1992.			
15,16	**Introduction to Inverted files**	19/11/20	Lecture interspersed with discussions
17,18	Structures used in Inverted Files	20/11/20 21/11/20	
19,20	Building Inverted file using a sorted array	23/11/20 24/11/20	
21,22	Modifications to Basic Techniques	26/11/20 27/12/20	
UNIT –III	**Signature Files**		
CO3: Understands the problems solved in current IR systems			
TB : Software testing techniques – Boris Beizer, Dreamtech, second edition.			
23	**Introduction Signature Files**	30/11/20	
24	Concepts of Signature Files	01/12/20	
25	Compression	02/12/20	
26	Vertical Partitioning	03/12/20	

27,28	Vertical partition with compression	04/12/20 05/12/20	Lecture interspersed with discussions
29,30	Compressed bit slice	07/12/20 08/12/20	
31,32	Double compressed bit slice	09/12/20 10/12/20	
33,34	Horizontal Partitioning	11/12/20 12/12/20	

TENTATIVE PLAN: R164105B

Course Title: INFORMATION RETRIEVAL SYSTEM(R164105B)		
Section : IT	**Date : 02/11/20**	**AY:2020-2021**
Revision No : 00	**Prepared By : A.Veda Sri**	**Approved By : HOD**

Tools : Black board, PPTs

No. of Periods	TOPIC	Date	Mode of Delivery
UNIT –IV	**New Indices for Text**		
CO4: Describes the advantages of current IR systems			
TB : Frakes, W.B., Ricardo Baeza-Yates: Information Retrieval Data Structures and Algorithms, Prentice Hall, 1992.			
No. of Periods	**TOPIC**	**Date**	**Mode of Delivery**
35	**New Indices for Text**	14/12/20	Lecture interspersed with discussions
36	Pat tree construction	15/12/20	
37	Introduction to PAT Trees	16/12/20	
38	PAT Arrays	17/12/20	
39,40	PAT Tree structure	18/12/20 19/12/20	
41,42	Algorithms on the PAT Trees	21/12/20 22/12/20	
43,44	Building PAT trees as PATRICA Trees	23/12/20 24/12/20	
45	PAT representation as arrays	26/12/20	
46	Searching PAT tree as array	28/12/20	
47	Building Pat tree in memeory	29/12/20	
UNIT –V	**Stemming Algorithms**		
CO5: Understand the difficulty of representing and retrieving documents.			
TB : Frakes, W.B., Ricardo Baeza-Yates: Information Retrieval Data Structures and Algorithms, Prentice Hall, 1992.			
48	**Introduction to Stemming Algorithms**	30/12/20	Lecture interspersed with discussions
49	Pat tree structure	04/01/21	
50,51	Stemming Algorithm Introduction	05/01/21 06/01/21	
52,53	Types of Stemming Algorithms	07/01/21 08/01/21	
54,55	Experimental Evaluations of Stemming to Compress Inverted Files	11/01/21 12/01/21	
UNIT –VI	**Thesaurus Construction**		
CO6: Understand the latest technologies for linking, describing and searching the web			
TB : Frakes, W.B., Ricardo Baeza-Yates: Information Retrieval Data Structures and Algorithms, Prentice Hall, 1992.			
56,57	**Thesaurus Construction**	18/01/21	

		19/01/21	
58,59	Introduction to Thesaurus Construction	20/01/21 21/01/21	Lecture interspersed with discussions
60,61	Features of Thesauri	22/01/21 01/02/21	
62,63	Normalization of vocbulary	02/02/21 03/02/21	
64,65	Thesaurus Construction	04/02/21 05/02/21	
66,67	Manual theasure construction	06/02/21 08/02/21	
68,69	Automatic theasure construction	10/02/21 11/02/21	
70,71	Thesaurus construction from Texts	12/02/21 15/02/21	
72,73	Oraganization of Vocabulary	16/02/21 17/02/21	
74,75	Merging existing Thesauri	18/02/21 19/02/21	

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TENTATIVE LESSON PLAN: R164105E

Course Title: SOFTWARE PROJECT MANAGEMENT(R164105E)		
Section : IT **Year /Sem : IV/I**	**Date :** 06-04-2021	**AY: 2020-21**
Revision No : 00	**Prepared By : M.SURESH BABU , Assistant Professor**	**Approved By : HOD**

Tools: Black Board, PPT , Video Lectures

UNIT-I: Introduction Project.

CO1: To study how to plan and manage projects at each stage of the software development life cycle (SDLC).

TB: Software Project Management, Bob Hughes & Mike Cotterell, TATA Mcgraw-Hill.

No.of Periods	Topic	Date	Mode of delivry
1	Project, Management,	2/11/2020	Lecture with discussions
2	Software Project Management activities	3/11/2020	
3	Challenges in software projects,	4/11/2020	
4,5	Stakeholders, Objectives & goals	5/11/2020	
6,7	Project Planning: Step-wise planning,	6/11/2020	
8	Project Scope, Project Products & deliverables,	9/11/2020	
9,10	Project activities, Effort estimation, Infrastructure	10/11/20	

UNIT-II: Project Approach

CO2: To train software project managers and other individuals involved in software project planning and tracking and oversight in the implementation of the software project management process.

TB: "Neural Networks: A comprehensive foundation", Second Edition, Pearson Education Asia.

11,12	Lifecycle models,	19/11/20	Lecture with discussions
13,14	Choosing Technology,	20/11/20	
15	Prototyping	23/11/20	
16	Iterative & incremental Process Framework:	24/11/20	
17	Lifecycle phases,	25/11/20	
18	Process Artefacts	26/11/20	
19	Process workflows	27/11/20	

UNIT-III: Effort Estimation & Activity Planning

CO1: To train software project managers and other individuals involved in software project Planning and tracking and oversight in the implementation of the software project Management process.

TB: Software Project Management, Bob Hughes & Mike Cotterell, TATA Mcgraw-Hill.

20	**Effort estimation & activity Planning**	04/12/20	Lecture with discussions
21,22	Estimation techniques,	07/12/20	
23	Function Point analysis, SLOC, COCOMO	09/12/20	
24	Use case-based estimation, Activity Identification Approaches	11/12/20	
25	Network planning models	12/12/20	
26	Critical path analysis	14/12/20	

UNIT-IV: Risk Management

CO1: To study how to plan and manage projects at each stage of the software development life cycle (SDLC)

TB: Satish Kumar, "Neural Networks: A classroom approach", Tata McGraw Hill, 2004.

27	Risk categories,	21/12/20	Lecture with discussions
28	Identification, Assessment	23/12/20	
29	Planning and management,	28/12/20	
30	PERT technique,	30/12/20	
31	Functional approximation with back propagation	02/1/21	
32	Monte Carlo approach.	04/01/21	

UNIT-V: Project Monitoring & Control, Resource Allocation

CO5: To understand successful software projects that support organization's strategic goals.

TB: Software Project Management, Bob Hughes & Mike Cotterell, TATA Mcgraw-Hill

33	Progress monitoring,	05/01/21	Lecture with discussions
34	Cost monitoring,	06/01/21	
35	Earned value Analysis,	07/01/21	
36	Defects Tracking	08/01/21	
37	Issues Tracking,	09/01/21	
38	Status reports,	12/01/21	

39,40	Types of Resources	12/01/21	
41,42	Identifying resource requirements,	18/01/21	
43	Resource scheduling	19/01/21	
44	Planning Quality	21/01/21	
45	Defining Quality	23/01/21	
46	ISO 9016	23/01/21	
UNIT-VI: Software Quality **CO6:** To understand successful software projects that support organization's strategic goals. **TB:** Software Project Management in practice, Pankaj Jalote, Pearson.			
47,48	Quality Measures	4/2/21, 5/2/21	Lecture with discussions
49,50	Quantitative Quality Management	8/2/21	
51,52	Quantitative Quality Management Planning	9/2/21	
53,54	Product Quality	10/2/21, 11/2/21	
55,56	Process Quality Metrics	12/2/21, 15/2/21	
57,58	Statistical Process Control	16/2/21, 17/2/21	
59,60, 61	Capability Maturity Model	18/2/21, 19/2/21, 19/2/21	
62,63, 64	Enhancing software Quality.	20/2/21	

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HOD/Date 24/1/20