



GANDHI SCHOOL OF ENGINEERING

BHABANDHA, BERHAMPUR

SESSION PLAN

3RD SEMESTER, BRANCH-INFORMATION TECHNOLOGY

DATA STRUCTURE (TH-2)

Name of the Faculty –ER.KABITA TRIPATHI & ER. SONU SAHU

Topics to be taken				TOPIC NO.	Actually Taken		
SL NO & CHAPTER	No. of Periods assigned by SCTE & VT	Details of the topics	PLANNING DATE		Details of the topics	ACTUAL DATE	Remarks
1 INTRODUCTI ON	4	INTRODUCTION: 1.1 Explain Data, Information, data types 1.2 Define data structure & Explain different operations 1.3 Explain Abstract data types 1.4 Discuss Algorithm & its complexity 1.5 Explain Time, space tradeoff	02-07-2024 TO 09-07-2024	1	1 INTRODUCTION: DATA STRUCTURE	02-07-2024	
				1.1	1.1 Explain Data, Information, data types		
				1.2	1.2 Define data structure & Explain different operations	04-07-2024	
				1.3	1.3 Explain Abstract data types	05-07-2024	
				1.4	1.4 Discuss Algorithm & its complexity		
				1.5	1.5 Explain Time, space tradeoff	09-07-2024	
2 STRING PROCESSING	3	STRING PROCESSING: 2.1 Explain Basic Terminology, Storing Strings 2.2 State Character Data Type, 2.3 Discuss String Operations	11-07-2024 TO 18-07-2024	2	2 STRING PROCESSING: INTRODUCTION	11-07-2024	
				2.1	2.1 Explain Basic Terminology, Storing Strings		
				2.2	2.2 State Character Data Type,	12-07-2024	
				2.3	2.3 Discuss String Operations	18-07-2024	
3 ARRAYS	7	ARRAYS: 3.1 Give Introduction about array, 3.2 Discuss Linear arrays, representation of linear array In memory 3.3 Explain traversing linear arrays, inserting & deleting elements 3.4 Discuss multidimensional arrays, representation of two dimensional arrays in memory (rowmajor order& column major order), and pointers 3.5 Explain sparse matrices	19-07-2024 TO 01-08-2024	3	3 ARRAYS: INTRODUCTION	19-07-2024	
				3.1	3.1 Give Introduction about array, 3.2 Discuss Linear arrays, representation of	22-07-2024	
				3.2	linear array In memory	23-07-2024	
				3.3	3.3 Explain traversing linear arrays, inserting & deleting elements	25-07-2024	
				3.4	3.4 Discuss multidimensional arrays, representation of two dimensional arrays in memory (rowmajor order& column major order), and pointers	26-07-2024	
				3.5	3.5 Explain sparse matrices	29-07-2025	
						01-08-2024	

4 STACKS & QUEUES	8	STACKS & QUEUES: 4.1 Give fundamental idea about Stacks and queues 4.2 Explain array representation of Stack 4.3 Explain arithmetic expression ,polish notation & Conversion 4.4 Discuss application of stack, recursion 4.5 Discuss queues, circular queue, priority queues.	02-08-2024 TO 16-08-2024	4	4 STACKS & QUEUES: INTRODUCTION	02-08-2024	
				4.1	4.1 Give fundamental idea about Stacks and queues	05-08-2024	
				4.2	4.2 Explain array representation of Stack	06-08-2024	
				4.3	4.3 Explain arithmetic expression ,polish notation & Conversion	08-08-2024	
				4.4	4.4 Discuss application of stack, recursion	09-08-2024	
				4.5	4.5 Discuss queues, circular queue, priority queues.	12-08-2024	
5 LINKED LIST	8	LINKED LIST: 5.1 Give Introduction about linked list 5.2 Explain representation of linked list in memory 5.3 Discuss traversing a linked list, searching, 5.4 Discuss garbage collection. 5.5 Explain Insertion into a linked list, Deletion from a linked list, header linked list	20-08-2024 TO 03-09-2024	5	LINKED LIST: INTRODUCTION	20-08-2024	
				5.1	5.1 Give Introduction about linked list	22-08-2024	
				5.2	5.2 Explain representation of linked list in memory	23-08-2024	
				5.3	5.3 Discuss traversing a linked list, searching,	27-08-2024	
				5.4	5.4 Discuss garbage collection.	29-08-2024	
				5.5	5.5 Explain Insertion into a linked list, Deletion from a linked list, header linked list	30-08-2024	
6 TREE	8	TREE: 6.1 Explain Basic terminology of Tree 6.2 Discuss Binary tree, its representation and traversal, binary search tree, searching, 6.3 Explain insertion & deletion in a binary search trees	06-09-2024 TO 20-09-204	6	TREE: INTRODUCTION	06-09-2024	
				6.1	6.1 Explain Basic terminology of Tree	09-09-2024	
				6.2	6.2 Discuss Binary tree, its representation and traversal,	10-09-2024	
				6.3	6.3 Explain insertion & deletion in a binary search trees	12-09-2024	
					Explain insertion & deletion in a binary search trees	13-09-2024	
						17-09-2024	
7 GRAPHS	6	GRAPHS: 7.1 Explain graph terminology & its representation, 7.2 Explain Adjacency Matrix, Path Matrix	23-09-2024 TO 28-10-2024	7	GRAPHS: INTRODUCTION	23-09-2024	
				7.1	7.1 Explain graph terminology & its representation,	24-09-2024	
				7.2	7.2 Explain Adjacency Matrix , Path Matrix	26-09-2024	
						07-10-2024	
						21-10-2024	
						28-10-2024	

8 SORTING SEARCHING & MERGING	8	SORTING SEARCHING & MERGING: 8.1 Discuss Algorithms for Bubble sort, Quick sort, 8.2 Merging 8.3 Linear searching, Binary searching.	01-11-2024 TO 25-11-2024	8 8.1 8.2 8.3	SORTING SEARCHING INTRODUCTION & MERGING: INTRODUCTION 8.1 Discuss Algorithms for Bubble sort Discuss Algorithms for Quick sort, 8.2 Merging Merging 8.3 Linear searching , Binary searching.	01-11-2024 05-11-2024 08-11-2024 12-11-2024 19-11-2024 21-11-2024 22-11-2024 25-11-2024	
9 FILE ORGANIZATI ON	8	FILE ORGANIZATION: 9.1 Discuss Different types of files organization and their access method, 9.2 Introduction to Hashing, Hash function, collision resolution, open addressing	02-12-2024 TO 16-12-2024	9 9.1 9.2	FILE ORGANIZATION: INTRODUCTION 9.1 Discuss Different types of files organization and their access method, Discuss Different types of files organization files organization and their access method, 9.2 Introduction to Hashing, Hash function, , Hash function, collision resolution, open addressing	02-12-2024 03-12-2024 06-12-2024 09-12-2024 10-12-2024 12-12-2024 13-12-2024 16-12-2024	

D. Poruthi

CLASS COVERED BY

HOD, INFORMATION TECHNOLOGY