

DS

BHUBANANANDA ODISHA SCHOOL OF ENGINEERING, CUTTACK
DEPARTMENT OF INFORMATION TECHNOLOGY LESSON PLAN

Discipline:IT	Semester: 3rd	No. Of period available	Name of the Teaching Faculty: D.SUSMITA
Subject: Data Structure	No. Of Days/per week class allotted: 4 periods per week (Mon,Wed, Thurs,Sat)		From Date: 01/08/2023 To Date: 30/11/2023 No. Of Weeks: 18 weeks
WEEK	CLASS DAY		TOPICS TO BE COVERED
1st	02/08/2023	1	1.0 INTRODUCTION: 1.1 Explain Data, Information, data types
	03/08/2023	1	1.2 Define data structure & Explain different operations
	05/08/2023	1	1.3 Explain Abstract data types 1.4 Discuss Algorithm & Its complexity
2nd	07/08/2023	1	1.5 Explain Time, space trade-off
	09/08/2023	1	2.0 STRING PROCESSING 2.1 Explain Basic Terminology, Storing Strings
	10/08/2023	1	2.2 State Character Data Type, 2.3 Discuss String Operations
	12/08/2023	1	3.0 ARRAYS 3.1 Give Introduction about array, 3.2 Discuss Linear arrays,
3rd	14/08/2023	1	3.2 Representation of linear array In memory
	16/08/2023	1	3.3 Explain traversing linear arrays, inserting & deleting elements
	17/08/2023	1	3.4 Discuss multidimensional arrays,
	19/08/2023	1	3.4 Representation of two dimensional arrays In memory (row major order & column major order), and pointers
4th	21/08/2023	1	3.4 Representation of two dimensional arrays in memory (row major order & column major order), and pointers
	23/08/2023	1	3.5 Explain sparse matrices.
	24/08/2023	1	Assignment 1 cum Doubt Clearing
	26/08/2023	1	Class Test 1
5th	28/08/2023	1	4.0 STACKS & QUEUES 4.1 Give fundamental idea about Stacks and queues
	31/08/2023	1	4.2 Explain array representation of Stack
	02/09/2023	1	4.3 Explain arithmetic expression

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6th	04/09/2023	1	4.4 Discuss application of stack.
	07/09/2023	1	4.4 recursion
	09/09/2023	1	4.5 Discuss queues, circular queue,
7th	11/09/2023	1	4.5 Priority queues
	13/09/2023	1	Doubt Clearing Class
	14/09/2023	1	5.0 LINKED LIST 5.1 Give Introduction about linked list
	16/09/2023	1	5.2 Explain representation of linked list in memory
8th	18/09/2023	1	5.3 Discuss traversing a linked list, searching,
	21/09/2023	1	5.4 Discuss garbage collection
	23/09/2023	1	5.5 Explain Insertion into a linked list
9th	25/09/2023	1	5.5 Deletion from a linked list,
	27/09/2023	1	5.5 header linked list
	28/09/2023	1	Assignment 2 cum Doubt Clearing
	30/09/2023	1	Class Test 2
10th	04/10/2023	1	6.0 TREE 6.1 Explain Basic terminology of Tree
	05/10/2023	1	6.2 Discuss Binary tree,
	07/10/2023	1	6.2 Its representation and traversal,
11th	09/10/2023	1	Internal exam
	11/10/2023	1	6.2 Binary search tree, searching
	12/10/2023	1	6.3 Explain insertion in a binary search tree
	14/10/2023	1	6.3 Explain insertion in a binary search tree
12th	16/10/2023	1	6.3 deletion in a binary search trees.
	18/10/2023	1	6.3 deletion in a binary search trees.
	19/10/2023	1	7.0 GRAPHS 7.1 Graph terminology & its representation
	21/10/2023	1	7.1 Graph representation

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13th	23/10/2023	0	Puja holidays
	25/10/2023	0	
	26/10/2023	0	
	28/10/2023	0	
14th	30/10/2023	1	7.2 Explain Adjacency Matrix
	01/11/2023	1	7.2 Explain Adjacency Matrix
	02/11/2023	1	7.2 Path Matrix
	04/11/2023	1	8.0 SORTING SEARCHING & MERGING 8.1 Discuss Algorithms of Bubble sort,
15th	06/11/2023	1	8.1 Discuss Algorithms of Bubble sort,
	08/11/2023	1	8.1 Discuss Algorithms of Quick sort
	09/11/2023	1	8.2 Merging
	11/11/2023	1	8.2 Merging
16th	13/11/2023	1	8.3 Linear searching,
	15/11/2023	1	8.3 Linear searching,
	16/11/2023	1	8.3 Binary searching.
	18/11/2023	1	9.0 FILE ORGANIZATION 9.1 Discuss Different types of files organization
17th	20/11/2023	1	9.1 Discuss Different types of files organization
	22/11/2023	1	9.1 Discuss their access method
	23/11/2023	1	9.1 Discuss their access method
	25/11/2023	1	9.2 Introduction to Hashing, Hash function
18th	29/11/2023	1	9.2 Collision resolution, open addressing
	30/11/2023	1	REVISION AND PERVIOUS YEAR QUESTION DISCUSSION