

Lesson Plan

Data Structure

Instructor: Manisha Chawla

Session: Jul-Dec 2024

Semester: 3rd

Number of classes planned: 27

Lecture No.	Unit No.	Topic to be covered
1-2	1	1.3 Declaring and initialising One-Dimensional Array and array Operations- Insertion, Searching
3	1	1.4 Multi-Dimensional Array and its Operations- Matrix operations
4	1	1.5 Drawbacks of Linear Arrays 1.6 Introduction to character arrays and strings.
5	2	2.1 Introduction to stack 2.2 Implementation of the stack 2.3 Operations on Stack-Push Pop
6-7	2	2.4 Application of Stack Expression Evaluation Infix to Postfix Infix to Prefix
8	2	Recursion
9	2	2.4 Introduction to Queue 2.5 Types of queue Single-Ended Queue Circular Queue Double-Ended Queue.
10-11	2	2.6 Implementation of Queue 2.7 Application of the Queue
12-13	3	3.1 Introduction and Features of Pointers 3.2 Declaration of Pointer 3.3 Operations on Pointers 3.4 Array of Pointers
14	3	3.5 Pointers to Pointers 3.6 Passing an array to a function
15-16	3	3.7 Introduction and Features of Structure & Union 3.8 Declaration of Structure & Union 3.9 Operations on Structure & Union
17	3	3.10 Array of Structure & Union 3.11 Pointers to Structure & Union
18	4	4.1 Introduction of Linked List

		<p>node, next address pointer, null pointer</p> <p>4.2 Types of Linked List Singly Linked List Doubly Linked List Circular Linked List</p>
19-20	4	<p>4.3 Operations on Linked List Searching Insertion</p>
21-22	4	<p>Deletion 4.4 Applications of Linked List</p>
23	5	<p>5.1 Definition of graph 5.2 Representation of graph Adjacency Matrix Incidence Matrix Adjacency List</p>
24	5	<p>5.3 Introduction to Tree 5.4 Type of tree Binary Tree Binary Search Tree (BST)</p>
25	5	5.5 Operation on BST- Insertion
26-27	5	<p>5.6 Operation on BST- Traversing Operation on BST- Deleting</p>
		Internal Viva
		Presentation
		Viva Voce



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