

PNS SCHOOL OF ENGG. & TECH., MARSHAGHAI

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING LESSON PLAN

BRANCH : CSE	SEMESTER : 3RD	NAME OF THE TEACHING FACULTY : MRS. JAYASHREE BISHOI
SUBJECT: Data Structure Lab	NO. OF DAYS PER WEEK CLASS ALLOTTED : 02	SEMESTER FROM DATE: 07.07.2025 TO 15.11.2025
WEEK	CLASS DAY	LAB EXPERIMENTS
1 ST	1 st	Introduction to Data Structures Lab
	2 nd	Write a program to analyze and compare the time complexity of basic operations (e.g., searching, insertion) on arrays and linked lists
2 ND	1 st	Write a program to analyze and compare the time complexity of basic operations (e.g., searching, insertion) on arrays and linked lists
	2 nd	
3 RD	1 st	Introduction to Linear Data Structures
	2 nd	Implement stack operations (push, pop, peek) using arrays and linked lists
4 TH	1 st	Develop programs for applications of stacks (e.g., infix-to-postfix conversion and postfix evaluation)
	2 nd	Implement queue operations (enqueue, dequeue) using arrays and linked lists
5 TH	1 st	Write programs for types of queues: circular queues and dequeue
	2 nd	Implement singly linked list operations (insertion, deletion, traversal).
6 TH	1 st	Write programs to create and manipulate circular and doubly linked lists
	2 nd	Implement stack and queue operations using linked lists.
7 TH	1 st	Introduction to Non-Linear Data Structures
	2 nd	Implement binary tree operations (insertion, deletion, traversal)
8 TH	1 st	Develop programs for types of binary trees (binary search tree, AVL tree)
	2 nd	
	1 st	Introduction to Sorting

9 TH	2 nd	Implement sorting algorithms: bubble sort, selection sort, in se
10 TH	1 st	Implement sorting algorithms: insertion sort, merge sort, quicksort
	2 nd	
11 TH	1 st	Introduction to searching
	2 nd	Write programs for searching using binary search trees (BST) and hash tables
12 TH	1 st	Write programs for searching using hash tables
	2 nd	Implement symbol table operations using balanced search trees
13th	1 st	Introduction to Graph
	2 nd	Implement graph representations (adjacency list, adjacencymatrix)
14th	1 st	Implement graph representations basic graph traversals (BFS)
	2 nd	Implement graph representations basic graph traversals(DFS)
15th	1 st	Revision
	2 nd	

Bijanayn Sain

SIGNATURE OF H.O.D

Jayashree Bisht

SIGNATURE OF LECTURER