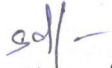


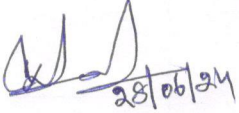
GOVT. POLYTECHNIC, NUAPADA

LESSON PLAN

Discipline: CSE	Semester: 3rd	Name of the Teaching Faculty: K. K. Chapeyar, Sr. Lecturer(CSE)
Subject: Data Structure	No. of Class class allotted per week: 4	Semester from: 01/07/2024 No. of weeks: 15 Session: 2024-25
WEEK	DAY	THEORY TOPICS
1st	1st	Explain Data, Information, data types.
	2nd	Define data structure & Explain different operations.
	3rd	Explain Abstract data types.
	4th	Discuss Algorithm & its complexity, Explain Time, space tradeoff .
2nd	1st	Explain Basic Terminology.
	2nd	Storing Strings, State Character Data Type.
	3rd	Discuss String Operations.
	4th	Give Introduction about array.
3rd	1st	Discuss Linear arrays, representation of linear array In memory.
	2nd	Explain traversing linear arrays.
	3rd	Inserting an element in linear array.
	4th	Deleting an elements from linear array.
4th	1st	Discuss multidimensional arrays. Representation of two dimensional arrays in memory.
	2nd	Explain sparse matrices, pointers.
	3rd	Give fundamental idea about Stacks.
	4th	Give fundamental idea about queues.
5th	1st	Explain array representation of Stack.
	2nd	Explain arithmetic expression.
	3rd	Polish notation & Conversion.
	4th	Polish notation & Conversion.
6th	1st	Discuss application of stack, recursion.
	2nd	Discuss queues.
	3rd	Discuss circular queue, priority queues.
	4th	Give Introduction about linked list.
7th	1st	Explain representation of linked list in memory.
	2nd	Discuss traversing a linked list.
	3rd	Searching in linked list
	4th	Discuss garbage collection.
8th	1st	Explain Insertion into a linked list.
	2nd	Deletion from a linked list.
	3rd	Header linked list.
	4th	Explain Basic terminology of Tree.
9th	1st	Discuss Binary tree.
	2nd	Binary tree representation and traversal.
	3rd	Binary tree representation and traversal.
	4th	Binary search tree.
10th	1st	Searching.
	2nd	Explain insertion in a binary search trees.
	3rd	Explain deletion in a binary search trees.

	4th	Explain graph terminology.
11th	1st	Explain graph representation.
	2nd	Explain Adjacency Matrix.
	3rd	Explain Adjacency Matrix.
	4th	Path Matrix.
12th	1st	Path Matrix.
	2nd	Sorting Algorithm.
	3rd	Sorting(Bubble sort).
	4th	Sorting(Quick sort).
13th	1st	Searching.
	2nd	Searching(Linear Search).
	3rd	Searching(Binary Search).
	4th	Merging.
14th	1st	Merging.
	2nd	Discuss Different types of files organization.
	3rd	Discuss File access method.
	4th	Discuss File access method.
15th	1st	Introduction to Hashing.
	2nd	Hashing Hash function
	3rd	Collision resolution.
	4th	Open addressing.


 Signature of
 Faculty


 28/06/24
 HOD
 Sr. Lecturer(CSE)