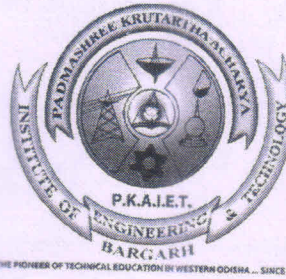


PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF
ENGINEERING & TECHNOLOGY, BARGARH



LESSON PLAN
Session-2023-2024

Discipline: Computer Science & Engg. Engg.

Semester: 3rd.

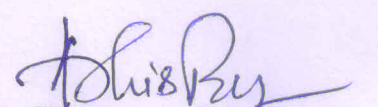
Subject: Data Structure

Name of the Teaching Faculty: Ashis Behera

Subject: Data Structure No. of Days/per week class allotted 04

Semester From Date: 1/8/23 To Date: 30/11/23 No. of Weeks: 15

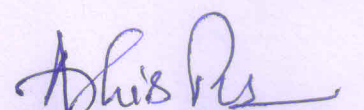
Week	Class Day	Theory /Practical Topics
	Day 1	Introduction to Data Structure.
1	Day 2	Linear Vs non-Linear Data Structure.
	Day 3	Algorithm with Example.
	Day 4	Time complexity and space complexity.
2	Day 1	Strings and it's Storage.
	Day 2	String Vs Character Data types.
	Day 3	String operations: strlen, strcmp
	Day 4	Introduction to Array and it's types.
3	Day 1	Linear Array & it's Memory representation.
	Day 2	Traversal and insertion to Linear Array.
	Day 3	Deleting and Merging of Linear Array.
	Day 4	Pointer Vs Array with Example.


Signature of the Faculty

Subject: Data Structure. No. of Days/per week class allotted 04

Semester From Date: 01/8/23 To Date: 30/11/23 No. of Weeks: 15

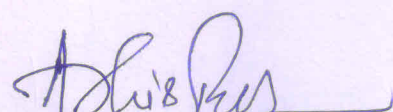
Week	Class Day	Theory / Practical Topics
4	Day 1	Row Major and Column Major in Array.
	Day 2	Sparse Matrix.
	Day 3	Introduction to Stack and Queue.
	Day 4	Array representation of Stack.
5	Day 1	Polish and Reverse Polish Notation.
	Day 2	Conversion of infix to Postfix and infix to prefix notation.
	Day 3	Application of stack using Polish Notation.
	Day 4	infix to prefix and infix to postfix Algorithm.
6	Day 1	Linear Queue
	Day 2	Circular Queue and priority Queue.
	Day 3	Algorithm and Prog. on operation on Queue.
	Day 4	Linked List and it's Memory Representation.


Signature of the Faculty

Subject: Data Structure. No. of Days/per week class allotted 04

Semester From Date: 01/8/23 To Date: 30/11/23 No. of Weeks: 15

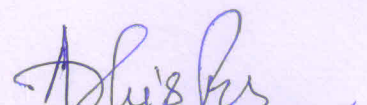
Week	Class Day	Theory /Practical Topics
7	Day 1	Traversal and searching of linked list.
	Day 2	Garbage collector with Example.
	Day 3	Insertion to linked list.
	Day 4	Algorithm to insertion of linked list.
8	Day 1	Algorithm of insertion of linked list.
	Day 2	Introduction to tree.
	Day 3	Deletion of an element from a tree with Example.
	Day 4	Tree terminology.
9	Day 1	Tree types with Ex.
	Day 2	Tree: Traversal, (Inorder)
	Day 3	Tree traversal (Pre-order, Postorder)
	Day 4	Binary search tree


Signature of the Faculty

Subject: Data Structure No. of Days/per week class allotted 04

Semester From Date: 11/8/23 To Date: 30/11/23 No. of Weeks: 15

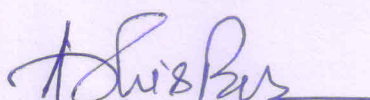
Week	Class Day	Theory / Practical Topics
10	Day 1	Insertion to BST.
	Day 2	Deletion to BST.
	Day 3	Introduction to Graph.
	Day 4	Types of Graph.
11	Day 1	Breadth First Search.
	Day 2	Depth First search.
	Day 3	Adjacency Matrix.
	Day 4	Path Matrix.
12	Day 1	Selection sort [Algorithm & Ex]
	Day 2	Bubble Sort [Algorithm & Ex]
	Day 3	Quick sort [Algorithm].
	Day 4	Quick sort [Example.]


Signature of the Faculty

Subject: Data Structure. No. of Days/per week class allotted 04

Semester From Date: 01/8/2023 To Date: 30/11/23 No. of Weeks: 15

Week	Class Day	Theory / Practical Topics
13	Day 1	Program on Quick sort.
	Day 2	Merging Example.
	Day 3	Searching [Linear]
	Day 4	Binary Searching.
14	Day 1	Introduction to File Organization.
	Day 2	Access Methods.
	Day 3	Hashing and Hash Function.
	Day 4	Different types of File Organization.
15	Day 1	Mid square and Folding Method.
	Day 2	Collision Resolution Method.
	Day 3	Open vs Close Hashing.
	Day 4	Open Addressing.


Signature of the Faculty