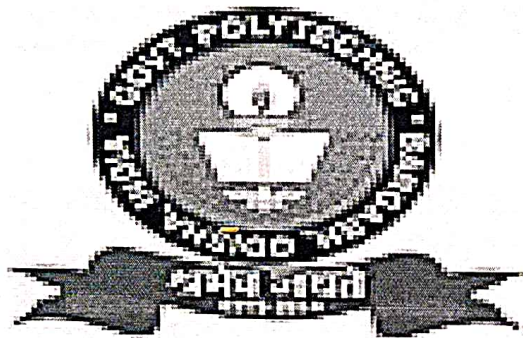


DATA STRUCTURE

LESSON PLAN



3RD SEM, CSE

PREPARED BY

Mrs. Banani Mohanty

**DEPARTMENT OF COMPUTER SCIENCE ENGINEERING
GOVERNMENT POLYTECHNIC BARGARH**

No. of periods per week: 04


No. of week: 15

No. of periods: 60

CLASS	TOPIC	TEACHING METHODS
1	INTRODUCTION: Explain Data, Information, data types	PPT
2	Define data structure & Explain different operations	PPT
3	Explain Abstract data types Discuss Algorithm & its complexity	PPT
4	Explain Time, space trade-off	PPT
5	STRING PROCESSING: Explain Basic Terminology, Storing Strings	Chalk & Talk
6	State Character Data Type,	Chalk & Talk
7	Discuss String Operations & Programs	Chalk & Talk
8	REVISION	Chalk & Talk
9	3.0 ARRAYS 3.1 Give Introduction about array,	PPT
10	3.2 Discuss Linear arrays, representation of linear array In memory	PPT
11	Programs using Arrays	Chalk & Talk
12	Explain traversing linear arrays, inserting & deleting elements	Chalk & Talk
13	Programs: 1. To insert an element in array 2. To delete an element from array	Chalk & Talk
14	Discuss multidimensional arrays, representation of two dimensional arrays in memory (row major order & column major order)	PPT
15	Pointers, Explain sparse matrices.	PPT
16	STACKS & QUEUES: Give fundamental idea about Stacks	Chalk & Talk
17	Explain array representation of Stack	Chalk & Talk
18	Explain arithmetic expression ,polish notation & Conversion	Chalk & Talk
19	Discuss application of stack	Chalk & Talk
20	recursion	Chalk & Talk
21	Discuss queues & array representation of Stack	Chalk & Talk
22	circular queue	Chalk & Talk
23	priority queues & REVISION	Chalk & Talk
24	LINKED LIST : Give Introduction about linked list	
25	Explain representation of linked list in memory	Chalk & Talk
26	Discuss traversing a linked list, searching,	Chalk & Talk
27	Discuss garbage collection	
28	Explain Insertion into a linked list	PPT
29	Deletion from a linked list	PPT
30	header linked list	Chalk & Talk
31	REVISION	Chalk & Talk
32	TREE: Explain Basic terminology of Tree	Chalk & Talk
33	Discuss Binary tree, its representation and traversal,	Chalk & Talk
34	Discuss Binary tree, its representation and traversal,	
35	binary search tree	Chalk & Talk
36	searching	Chalk & Talk
37	Explain insertion in a binary search trees	Chalk & Talk
38	Explain deletion in a binary search trees	Chalk & Talk
39	REVISION	Chalk & Talk
40	GRAPHS	
41	Explain graph terminology & its representation	PPT
42	Explain graph terminology & its representation	PPT
43	Explain Adjacency Matrix,	PPT

44	Path Matrix	PPT
45	REVISION	PPT
45	Discuss Algorithms for Bubble sort	PPT
46	Quick sort	Chalk & Talk
47	Merging	Chalk & Talk
	Linear searching	Chalk & Talk
49	Binary searching.	Chalk & Talk
50	REVISION	Chalk & Talk
51	FILE ORGANIZATION Discuss Different types of files organization.	PPT
52	FILE ORGANIZATION and their access method	PPT
53	Introduction to Hashing	PPT
54	Hash function	PPT
55	collision resolution	PPT
56	open addressing	PPT
57	REVISION	PPT
58	DISCUSSION OF PREVIOUS YEAR QUESTIONS	PPT
59	DISCUSSION OF PREVIOUS YEAR QUESTIONS	PPT
60	DISCUSSION OF PREVIOUS YEAR QUESTIONS	PPT


Faculty


Senior Lecturer