LESSON PLAN

Name of the Institute:	**C. V. Raman Polytechnic**
Department:	**Computer Science & Engineering**
Semester/Division/Branch:	**3RD Sem/CSE**
Subject Name with code:	**Data Structure(TH-2)**
Total No. of Class (Required):	**60**
Faculty Name:	**SAMBHU PRASAD PANDA**

Class No.	*Brief description of the Topic/Chapter to be taught*	Remarks
1	**Introduction to Data structure**	
2	Explain data,information,data types.Define datastructure and explain different opertions	
3	Explain Abstract data types.	
4	Discuss Algorithm & its complexity.Explain time,space tradeoff	
5	**String processing:** Explain basic terminology, storing strings	
6	State character data type	
7	Discuss string operations	
8	**Arrays:**Introduction about array	
9	Discuss linear arrays, representation of linear array inmemory	
10	Explain traversing linear arrays, inserting and deletingelements	
11	Discuss multidimensional arrays	
12	Representation of 2D arrays in memory(row majororder and comumn major order) pointers	
13	Explain pointers	
14	Explain sparse matrices	

15	**Stacks and queues:** Fundamental idea about stacksand queues	
16	Explain array representation of stack	
17	Explain arithmetic expression	
18	Polish notation & conversion	
19	Discuss application of stack	
20	Recursion	
21	Discuss quesues	
22	Circular queues and priority queues	
23	**Linked list:**Give introduction about linked list	
24	Explain represention of linked list in memory	
25	Discuss traversing a linked list	
26	Searching	
27	Discuss garbage collection	
28	Insertion into a linked list	
29	Deletion from a linked list	
30	Header linked list	
31	**Tree:**Expalin basic terminolgy of tree	
32	Discuss binary tree	
33	Binary tree representation	
34	Traversal of binary tree	
35	Binary serach tree	
36	Searching	
37	Insertion in a binary search tree	
38	Deletion in a binary serach trees	
39	**Graphs:**Explain graph terminology	
40	Represention of graph	
41	Representaion of graph	

42	Explain adjacency matrix	
43	Explain path matrix	
44	Explain path matrix	
45	**Sorting,searching and merging:**Discuss algorithm for bubble sort	
46	Bubble sort	
47	Algorithm for quick sort	
48	Quick sort	
49	Merging	
50	Merging	
51	Linear searching	
52	Binary searching	
53	**File organization:**Discuss different types of file organization and their access method	
54	File organization and access method	
55	Introduction to hashing	
56	Hash function	
57	Hash function	
58	Collision resolution	
59	Collision resolution	
60	Open addressing	

Signature of the Faculty

Signature of the H.O.D