

LESSON PLAN

Name of the Institute:		C.V.Raman Polytechnic
Department:		Computer Science & Engineering
Semester/Division/Branch:		3 rd sem/CSE
Subject Name with code:		Data Structure (TH-2)
Total No. of Class (Required):		60
Faculty Name:		Jagadish Mahanta
Class No.	Brief description of the Topic/Chapter to be taught	Remarks
1	Introduction to Data structure	
2	Explain data, information, data types. Define data structure and explain different operations	
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 in memory	
10	Explain traversing linear arrays, inserting and deleting elements	
11	Discuss multidimensional arrays	
12	Representation of 2D arrays in memory (row major order and column major order) pointers	
13	Explain pointers	
14	Explain sparse matrices	

15	Stacksandqueues:Fundamentalideaaboutstacksandqueues	
16	Explainarrayrepresentationofstack	
17	Explainarithmeticexpression	
18	Polishnotation&conversion	
19	Discussapplicationofstack	
20	Recursion	
21	Discussquesues	
22	Circularqueuesandpriorityqueues	
23	Linkedlist:Giveintroductionaboutlinkedllist	
24	Explainrepresentationof linkedlistinmemory	
25	Discusstraversinga linkedlist	
26	Searching	
27	Discussgarbagecollection	
28	Insertionintoa linkedlist	
29	Deletionfroma linked list	
30	Headerlinkedlist	
31	Tree:Expalinbasicterminolgyoftree	
32	Discussbinarytree	
33	Binarytreerepresentation	
34	Traversalofbinarytree	
35	Binaryserachtree	
36	Searching	
37	Insertioninabinarysearchtree	
38	Deletionina binaryserachtrees	
39	Graphs:Explaingraphterminology	
40	Representationofgraph	
41	Representaionofgraph	

42	Explainadjacencymatrix	
43	Explainpathmatrix	
44	Explainpathmatrix	
45	Sorting,searchingandmerging:Discussalgorithmfor bubblesort	
46	Bubblesort	
47	Algorithmforquicksort	
48	Quicksort	
49	Merging	
50	Merging	
51	Linearsearching	
52	Binarysearching	
53	Fileorganization:Discussdifferenttypesoffile organizationandtheiraccessmethod	
54	Fileorganizationandaccessmethod	
55	Introductiontohashing	
56	Hashfunction	
57	Hashfunction	
58	Collisionresolution	
59	Collisionresolution	
60	Openaddressing	

J. J. M. M.
Signature of the Faculty

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Signature of the H.O.D