

LESSON PLAN

Contact Hour (Cumulative)	Unit No.	Topic	Teaching(*) Methodology	Remarks
		UNIT-1		
1	I	Introduction	Black board	
2	I	Basic Concepts of DS	Black board	
3	I	Notations of Time & Space Complexity	BB	
4	I	Iterative & Recursive Algorithms	BB	
5	I	Asymptotic Notations	BB	
		UNIT-2		
6	II	Searching: Algorithm Analysis Linear Search, Binary Search	BB	
7	II	Hashing: Hash functions	BB	
8	II	collision Resolution Techniques	LCD	
9	II	Sorting: Methodology & Performance Analysis	BB	
10	II	Selection, Bubble, Insertion	BB	
11	II	Quick Sort	BB	
12	II	Merge Sort	BB	
13	II	Heap Sort	BB	
		UNIT-3		
14	III	Linked List: comparison with Arrays	video lecture	
15	III	operations on singly linked List: creation	BB	
16	III	Insertion, deletion, Traversing Searching	BB	
17	III	operations on double linked list	BB	
18	III	operations on circular linked list	BB	

*Black Board / LCD / OHP / Other Method

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Contact Hour (Cumulative)	Unit No.	Topic	Teaching(*) Methodology	Remarks
19	IV	UNIT-IV Stacks : Definition, operations	BB	
20	IV	Push & Pop	BB	
21	IV	Applications of stacks	BB	
22	IV	conversion & Evaluation of expressions	BB	
23	IV	Queues : Types, Simple Queue	BB	
24	IV	Circular Queue : Efficient operations on Queues	BB	
25	IV	Implementation of stack and queue using linked list	BB	
26	V	UNIT-V Trees : Basic Terminology	BB	
27	V	Binary Tree : Traversals	BB	
28	V	Binary search Tree operations	BB	
29	V	Introduction to Balanced Trees : AVL	LCD	
30	V	B-Tree	BB	
31	VI	UNIT-VI Graph : Basic Terminology	BB	
32	VI	Representation of Graphs	LCD	
33	VI	Graph Traversal algorithms: BFS & DFS	BB	
34	VI	Single Source Shortest Path Algorithm	BB	
35	VI	Dijkstra's Algorithm	BB	
36	VI	Breadth First Search	BB	
37	VI	Depth First Search	BB	
38	VI	Dijkstra's Algorithm, Example	BB	

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