ADSA :- UNIT-I

2M-8 (R-20)

1) Define Algorithm
2) what are the properties an Algorithm
3) Define pseudo code
4) what is space complexity
5) what is Time complexity
6) what is ment by polynomial Time
7) what is mant by Exponential Time
8) Define Avg, Best & worst case
9) what is ment by Recursion
10) what is ment by Recurence Relation
11) Define Master Theorem.

UNIT-I-LAO

12) Explain the Masters Theorem with an example.
2) Explain the performance Analysis with an example
3) Explain Asymptotic Notation with an example
4) How To Analyze Recursive Programs

ADSA - UNIT : II 2M (R-20)

1) Define Tree
2) What is ment by Binary Search Tree
3) What are the operations of Binary Search Tree
4) Define AVL Tree
5) What are the operations of AVL Tree
6) What are the different types of Rotations in Tree
7) Define B-Tree
8) What are the operations of B-Tree

UNIT-II - LAQ

1) Explain Different operations of Binary Search Tree with an example
2) Explain AVL Tree operations with an Example
3) Explain B-Tree's operations with an Example

UNIT : III 2M

1) What is ment by Red Black Tree
2) Define splay Tree
3) Define Hash Table
4) what is ment by Linear open addressing
5) what is ment by Collision Resolution Technique
6) what are the types of Collision Resolution Techniques

UNIT : III LAQ

1) Explain Red Black Tree Operations With an Example.
2) Explain Different operations of Splay Tree's
3) Explain Collition Resolution Technique

UNIT : IV 2M

1) What are the Algorithm Design Techniques.
2) what is ment by Divide and Conquer
3) What is the Binary Search.
4) what is the maximum & minimum problem
5) what is Quick sort
6) what is merge sort
7) Define feasible and optimal Solution
8) what is ment by Greedy method
9) Define knapsack problem
10) what is a minimum cost Spanning Tree

UNIT : IV LAQ

1) Explain Binary Search with an Example
2) Explain Quick Sort with an Example
3) Solve MIDEXAMINATION by using Merge Sort
4) What is ment strassens Matrix Multiplication and Explain it
5) Explain knapsack problem with an Example
6) Explain minimum cost Spanning Tree with an Example

(R-20)

7) Explain Single Source Shortest path Problem

UNIT: IV 2M

1) Write the difference between the Greedy Method and Dynamic programming
2) Define Dynamic programming
3) Define Back Tracking
4) Define All pair shortest path problem
5) Define 0/1 knapsack problem
6) Define state space Tree
7) What is ment by Travelling Sales person Problem
8) Define chromatic number of the graph
9) Define Degree of a graph
10) What are NP-Hard and NP Complete problems
11) what is ment by N-Queen's problem
12) what is ment by Graph Colour
13) Define Hamiltonian cycle's

UNIT: V 4AQ

1) Explain 0/1 knapsack problem with an Example
2) Explain Travelling Sales person problem

With an Example

3) Explain All pair's shortest path problem

4) Explain N-Queen's problem

5) Explain Graph-Colouring & Hamiltonian cycles

⇒ Good Luck To All ⇐