Problem List

Course: CSE-222 (Algorithm Lab), Dept. of CSE, JKKNIU.
Book Reference: Fundamentals of Computer Algorithm, Sahni

1. Write a program to implement a binary search algorithm using divide and conquer method. (recursive) [Use at least 10 numbers as data set]

2. Write a program to find the maximum & minimum of a given array using divide & conquer method. [Use at least 10 numbers as data set]

3. Write a program to implement quick sort using divide & conquer method. [Use at least 10 numbers as data set]

4. Write a program to implement Merge sort using divide & conquer method. [Use at least 10 numbers as data set]

5. Write a program to solve Knapsack problem using greedy method. [Use at least 6 elements in the data set]

6. Write a program to solve Job sequence problem with deadline using greedy method. [Consider at least 5 Jobs]

7. Find the minimum cost spanning tree using Prims algorithm. [Use at least 7 nodes to draw the graph]

8. Find the minimum cost spanning tree using Kruskals algorithm. [Use at least 7 nodes to draw the graph]

9. Write a program to solve single source shortest path problem with deadline using greedy method. [Consider at least 5 vertices]

10. Write a program to solve all-pair shortest-path problem for a graph using dynamic programming. [Consider at least 3 vertices]

11. Write a program to solve 'Sum of subset' problem using backtracking strategy. [Use at least 8 numbers as data set] Pg#377

12. Write a program to solve n-queens problem using backtracking strategy.[Assume that n<= 4]

13. Write a program to solve Graph coloring problem using backtracking strategy. [Assume that number of nodes, n <= 4]