

**Sample Set for AOA Practical ESE-2023**

1.	Write a program to find maximum and minimum element from the given list, using Divide and conquer and straightforward approach.
2.	Write a program to search an element in the given list using iterative and recursive Binary Search.
3.	Write a program to sort the given list using quick sort.
4.	Write a program to sort the given list using Randomized quick sort
5.	Write a program to sort the given list of merge sort using divide and conquer.
6.	Write a program to sort the given list using selection and insertion sort
7.	Write a program to solve knapsack problem using Greedy method.
8.	Write a program to solve knapsack problem using dynamic programming method.
9.	Write a program to solve Longest Common Subsequent problem using dynamic programming method. X= QueSeraSera Y= CoursEra
10.	Write a program to compute sum of subsets using Backtracking
11.	Write a program to solve N-Queens problem using backtracking
12.	Write a program to solve given graph colouring problem For the given graph, compute the minimum chromatic number to colour the graph such that no two adjacent vertices have the same colour. Give all possible combinations of such colour assignments. To solve the same, -Define the Problem -Define the explicit, implicit and backtracking conditions clearly
14.	Write a program to compute Single Source Shortest Path using Greedy Method
15.	Write a program to Solve the given instance of graph to compute Single source shortest path from first vertex in sequence to the rest of vertices using Dynamic Programming.  To solve the same, -Define the Problem -Define greedy strategy -Write the formula -State the answer(s) clearly
16.	Write a program to compute All Pair Shortest Path using Dynamic Programming
17.	Write a program to compute Matrix Chain Multiplication using Dynamic Programming.
18.	Write a program to compute minimum cost of the tour using dynamic programming Travelling salesman problem. Define the Problem -Define optimal substructure



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19.	Write a program to compute 8/15 Puzzle problem using Branch and Bound.
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	<ul style="list-style-type: none"><li>-Write the recursive formula</li><li>-Compute the answer</li><li>-Construct the answer</li></ul>
19.	Write a program to solve sum of subset problem using backtracking Solve the given problem of sum of subsets using backtracking. Give explicit, implicit and backtracking conditions for the same.
20.	Write a program to solve the given problem instance of Multistage graphs with forward Approach using Dynamic Programming. To solve the same, <ul style="list-style-type: none"><li>-Define the Problem</li><li>-Define optimal substructure</li><li>-Write the recursive formula</li><li>-Compute the answer</li><li>-Construct the answer</li><li>-State the answer(s) clearly</li></ul>
21.	Write a program to solve the given problem instance of Multistage graphs with backward using Dynamic Programming. To solve the same, <ul style="list-style-type: none"><li>-Define the Problem</li><li>-Define optimal substructure</li><li>-Write the recursive formula</li><li>-Compute the answer</li><li>-Construct the answer</li><li>-State the answer(s) clearly</li></ul>
22.	WAP to implement Naive String Matching Algorithm. Show all the comparisons the naive string matcher makes for the Pattern P and text T.