R.V.COLLEGE OF ENGINEERING
(Autonomous Institution Affiliated to VTU)
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

Following is the list of programs to be given during the practical exams for the Design and Analysis of Algorithms(~~CS235AI~~ CD343AI) course.

Sl. No.	Program
1	Write a program to sort a given set of elements using Merge sort method and find the time required to sort the elements.
2	Write a program to obtain the Topological ordering of vertices in a given digraph using DFS method
3.	Write a program to implement Horspool's algorithm for String Matching.
4.	Write a program to implement 0/1 Knapsack problem using dynamic programming
5.	Write a program to find the shortest path using Dijkstra's algorithm for a weighted connected graph.
6.	Write a program to find a subset of a given set S = {S1, S2,.....,Sn} of npositive integers whose sum is equal to a given positive integer d. For example, if S ={1, 2,5, 6, 8} and d= 9, there are two solutions {1,2,6}and {1,8}. Display a suitable message, if the given problem instance doesn't have a solution.
7.	Write a program to implement N -queens problem using backtracking.
8.	Write a program to implement to sort a given set of elements using quick sort method and find the time required to sort the elements.
9.	Write a program to implement to sort a given set of elements using Heap sort algorithm and find the time required to sort the elements.
10.	Implement a program to check connectivity of the graph using Breadth First method
11.	Implement a program to implement Floyd's algorithm to find all pair shortest path
12	Implement a program to find Minimum cost spanning tree of a given undirected graph using Prim's algorithm.

12/8/24.