DEPARTMENT OF COMPUTER SCIENCE
MCA II SEMESTER 2024, ASSIGNMENT
PAPR CODE: MCA8007P
Last Date: 10th September 2024

PART I

1. Write a python program to implement Quick sort algorithm for sorting a list of integers in ascending order
2. Write a python program to implement Merge sort algorithm for sorting a list of integers in ascending order.
3. Write a python program to implement DFS algorithm for a graph.
4. Write a python program to implement BFS algorithm for a graph.
5. Write a python program that implements Prim's algorithm to generate minimum cost spanning tree.
6. Write a python program that implements Kruskal's algorithm to generate minimum cost spanning tree
7. Write a python program to implement Greedy algorithm for the 0/1 Knapsack method.

PART II

8. Write a python program to implement TSP problem using Dynamic programming.
9. Write a python programs to implement backtracking algorithm for the N-queens problem.
10. Write a python program to implement the backtracking algorithm for the sum of subsets problem.
11. Write a python program to implement Strassen's matix multiplication.
12. Write a python program to implement maze problem using greedy method.
13. Write a python program to implement union find algorithm to merge two sets.
14. Write a python program to implement Tower of Hanoi Problem using recurrence.
15. Write a python program to implement job sequencing with deadline using greedy method.

Dell
21/8/2024.