LAB ASSIGNMENT

On

Design and Analysis of Algorithm (ECS -552)



INFORMATION TECHNOLOGY TMU, MORADABAD

Session: 2024-25 (ODD Sem.)

Submitted To: Submitted By:

Mr. Mohit Kumar Mishra Student Name:

Course:

Enrollment No.:

ASSIGNMENT NO. – 01

| S.NO | PROGRAM NAME | PAGE | DATE | SIGN | REMARK |
|------|--|------|------|------|--------|
| | | NO | | | |
| 1. | Write program in C++ to implement Linear Search | | | | |
| 2. | Write program in C++ to implement Binary Search | | | | |
| 3. | Write program in C++ to implement Bubble Sort. | | | | |
| 4. | Write program in C++ to implement Insertion Sort | | | | |
| 5. | Write program in C++ to implement Merge Sort | | | | |
| 6. | Write program in C++ to implement Quick Sort | | | | |
| 7. | Write program in C++ to implement Selection Sort. | | | | |
| 8. | Write program in C++ to implement heap Sort | | | | |
| 9. | Write algorithm and program in C++ to implement Counting Sort. | | | | |
| 10. | Write algorithm and program in C++ to implement Radix Sort. | | | | |

ASSIGNMENT NO. – 02

| S.NO | PROGRAM NAME | PAGE NO | DATE | SIGN | REMARK |
|------|---|---------|------|------|--------|
| | | | | | |
| 1. | WAP to implement Fractional KnapSack Problem | | | | |
| 2. | WAP to implement Integer KnapSack Problem | | | | - |
| 3. | WAP to implement Matrix Chain Multiplication order. | | | | |
| 4. | WAP to implement Activity selector problem. | | | | |
| 5. | WAP to implement Longest Common Subsequence. | | | | |

ASSIGNMENT NO. – 03

| S.NO | PROGRAM NAME | PAGE NO | DATE | SIGN | REMARK |
|------|---|------------|------|------|--------|
| 1. | WAP to implement BFS. | 110 | | | |
| 2. | WAP to implement DFS. | | | | |
| 3. | WAP to implement Minimum spanning tree using Kruskal's Algorithm | | | | |
| 4. | WAP to implement Minimum spanning tree using Prim's Algorithm. | | | | |
| 5. | WAP to implement single source shortest path using Dikjastra's Algorithm. | | | | |

ASSIGNMENT NO. – 04

| S.NO | PROGRAM NAME | PAGE NO | DATE | SIGN | REMARK |
|------|--|------------|------|------|--------|
| 1. | WAP for n Queen problem | | | | |
| 2. | WAP for Hamiltonian circuit using Back tracking. | | | | |
| 3. | WAP for subset problem using Back tracking | | | | |
| 4. | WAP for TSP using Back tracking | | | | |
| 5. | WAP for TSP using Dynamic Programming | | | | |