**CSCA 414: ALGORITHMS LAB**

1. Implement binary search using Divide-and-Conquer technique.
2. Implement quick sort and merge sort using Divide-and-Conquer technique.
3. Find the maximum and minimum element in an array using Divide-and-Conquer technique.
4. Implement and analyse the time complexity of any of the sorting algorithm and represent it graphically.
5. Implement Strassen’s multiplication using Divide and Conquer technique.
6. Implement Knapsack problem using Greedy technique.
7. Implement Single-Source Shortest Path algorithm using Greedy technique.
8. Implement Prim’s algorithm using greedy technique.
9. Implement Kruskal algorithm using greedy technique.
10. Implement Multi-Stage Graphs using Dynamic Programming technique.
11. Implement Floyd’s algorithm using Dynamic Programming technique.
12. Implement Traveling Salesman algorithm using Dynamic Programming technique.
13. Implement 8 Queens algorithm using Backtracking technique.
14. Implement Hamiltonian cycle algorithm using Backtracking technique.
15. Implement Traveling Salesman problem using Branch-and-Bound technique.