

# **DESIGN & ANALYSIS OF ALGORITHMS LAB**

## **Prerequisites:**

1. Computer programming
2. Data Structures

## **Objectives:**

To implement Different algorithms by using a Programming language.

## **Course Details:**

## **List of Sample Programs:**

<b>Experiment No. 1</b>	Write a program to implement linear search and binary search.
<b>Experiment No. 2</b>	Write a program to implement merge sort and quick sort.
<b>Experiment No. 3</b>	Write a program to implement heap sort and operations on a binary search tree.
<b>Experiment No. 4</b>	Write a program to implement matrix chain multiplication problem.
<b>Experiment No. 5</b>	Write a program to implement longest common subsequence problem.
<b>Experiment No. 6</b>	Write a program to implement activity selection problem, fractional knapsack problem and 0/1 knapsack problem.
<b>Experiment No. 7</b>	Write a program to implement Huffman coding.
<b>Experiment No. 8</b>	Write a program to implement Prim's and Kruskal's algorithm.
<b>Experiment No. 9</b>	Write a program to implement Bellman-Ford algorithm, Dijkstra algorithm, Floyd-Warshall algorithm.
<b>Experiment No. 10</b>	Write a program to implement N-Queens' problem, Rabin-Karp string matching algorithm.