Course Outcomes	
CO1	Analyse the complexity of algorithms and evaluate their performance in terms of time and space requirements. (Analyse)
CO2	Implement various algorithm using the Divide and Conquer approach. (Analyse)
CO3	Design an optimal solution by applying various methods like Dynamic Programming and Greedy Method. (Understand)
CO4	Evaluate various Graph Matching and Pattern Matching Algorithms. (Understand)
CO5	Use Backtracking, Branch and Bound, NP Completeness to solve real world problems. (Analyse)

Lab	Program	CO
1.	Write a Program to implement factorial program using iterative and recursive method with time analysis.	CO1
2.	Write a Program to implement Bubble sort, Selection sort, and Insertion sort and perform time analysis of these sorting algorithms.	CO1
3.	Develop a program to implement Merge sort and Quicksort and perform time analysis of sorting algorithms.	CO2
4.	Write a Program to implement Max-Heap sort.	CO2
5.	Write a Program to implement a knapsack problem using greedy algorithm.	CO3
6.	Write a Program to implement Activity Selection using greedy algorithm.	CO3
7.	Develop a program to implement making a change problem using dynamic programming.	CO3
8.	Develop a program to implement a knapsack problem using dynamic programming.	CO3
9.	Write a Program to implement chain matrix multiplication using dynamic programming.	CO3
10.	Develop a program to implement LCS problem.	CO3
11.	Write a Program to implement prim's algorithm.	CO4
12.	Write a Program to implement Kruskal's algorithm.	CO4
13.	Write a Program to implement Naïve String Matching.	CO4
14.	Implementation of Travelling Salesman Problem.	CO5

Software Required
• CodeBlocks

Subject In-charge **Head of the Department**