A. D. Patel Institute of Technology

Information Technology Department

3150703: Analysis & Design Algorithm

A.Y. 2020-21 Semester: I

Practical / Experiment List

(Practical Hours: 2 hours x 1 day per week, per batch)

Exp. No	Name of Experiment
1	Generate large number of elements randomly and sort all the elements in ascending order using Bubble sort. Analyze the time complexity for best, average and worst case.
2	Generate large number of elements randomly and sort all the elements in ascending order using Selection sort and Insertion sort. Analyze the time complexity for best, average and worst case.
3	Write a program to implement Max-heap sort.
4	Generate large number of elements randomly and search a given number from it using sequential search and binary search. Analyze the time complexity for best, average and worst case.
5	Generate large number of elements randomly and sort all the elements in ascending order using Merge sort. Analyze the time complexity for best, average and worst case.
6	Generate large number of elements randomly and sort all the elements in ascending order using Quick sort. Analyze the time complexity for best, average and worst case.
7	Write a program to implement Making change problem and Knapsack problem using Greedy method.
8	Write a program to implement Making change problem using Dynamic programming.
9	Write a program to implement Knapsack problem using Dynamic programming.
10	Write a program to implement Floyd's algorithm for finding shortest path using Dynamic programming.
11	Write a program to implement Chained Matrix Multiplication using Dynamic programming.
12	Write a program to implement Longest Common Subsequence using Dynamic programming.
13	Open Ended Problem

Course Coordinator

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