G H Patel College of Engineering & Technology

Department of Computer Engineering

Vision

- ✓ To produce globally competitive computer engineers, who are prepared to accept the challenges at professional level, while maintaining the core values.

Mission

- ✓ To create excellent teaching learning environment.
- ✓ To mould engineers with a strong foundation of scientific knowledge and engineering concepts.
- ✓ To enhance the acquired concepts and develop new technology through excellence in research.
- ✓ To assist nation building and elevating the quality of life of the people through leadership in professionalism, education, research and public services.

Programme Educational Objectives (PEO)

- ✓ To educate young aspirants with the fundamentals of engineering and knowledge of latest technologies.
- ✓ To encourage the students to remain updated by pursuing higher degree or certification programs.
- ✓ To assume management and leadership roles to contribute in socio-economic development of the nation.

G H Patel of College of Engineering & Technology

Department of Computer Engineering

A.Y. 2024-25 (ODD), Semester 5

Subject Code: 202045601

Subject Name: Design and Analysis of Algorithms

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ENROLMENT NO: _____ **BRANCH:** _____

Sr. No	Name of the Experiment	Page No.	Date	Marks	Signature
1	Write a program to sort given elements of an array in ascending order using bubble sort. Analyze the time complexity for best, average and worst case.				
2	Write a program to sort given elements of an array in ascending order using selection sort. Analyze the time complexity for best, average and worst case.				
3	Write a program to implement heap sort.				
4	Write a program to search given element from an array using sequential search and binary search. Analyze the time complexity for best, average and worst case.				
5	Write a program to sort given elements of an array in ascending order using merge sort. Analyze the time complexity for best, average and worst case.				
6	Write a program to sort given elements of an array 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 using greedy algorithm.				
8	Write a program to implement the knapsack problem using greedy algorithm.				
9	Write a program to implement making change problem using dynamic programming.				
10	Write a program to implement the knapsack problem using dynamic programming.				
11	Write a program to implement Floyd's algorithm for finding shortest path using dynamic programming.				
12	Write a program to implement chained matrix multiplication using dynamic programming.				
13	Write a program to implement longest common subsequence using dynamic programming				

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