

Basic Concepts of Algorithm: Definition, Characteristics, Properties, P, NP, NP Hard, NP Complete, Time Complexity, etc.

Asymptotic notation

Recurrence relation- Forward substitution, Backward substitution, Recursion tree using Master Theorem

Radix sort, Count sort, Linear search, Binary search, Insertion sort, Bubble sort

Divide & Conquer - Max-Min Problem, Merge sort, Quick sort

Fibonacci Series

Greedy approach - Fractional Knapsack, Job sequencing problem

Dynamic Programming – 0-1 knapsack problem, matrix chain multiplication, Floyd-Warshall Algorithm

Backtracking - 8 queens problem

Backtracking - Subset sum problem

Backtracking - Graph Colouring

Branch & Bound - 0-1 Knapsack problem, Job sequencing problem