

Sorting:

1. Merge Sort
2. Quick Sort
3. Counting Sort

Optimization:

1. Binary Search
2. Ternary Search
3. Two Pointer

Number Theory:

1. Binary exponentiation
2. Matrix exponentiation
3. Inverse binary expo

Graph:

1. DFS
2. Iterative depending DFS
3. BFS
4. Dijkstra
5. Prim's
6. Kruskal
7. A Star search
8. Lowest common ancestor
9. Disjoint set union
10. Warshall
11. Topological Sort

String

1. KMP
2. Robin Karp
3. Trie

DP

1. Subset Generate
2. Top Down
3. Bottom Up
4. Meet in the middle

Data Structure

1. Segment tree
2. Segment tree lazy
3. Binary Index Tree
4. Sqrt decomposition

Geometry

1. Graham's Scan
2. Jarvis March
3. Line Segment Intersection

Greedy Approach

- 1.

CT Topic

1. Data Structure + Number Theory + Graph + Sorting
2. String + Geometry + Dynamic Programming + Optimization

CT Date:

1. 09.01.2025
2. 12.01.2025

Lab Test Date:

1. 09.01.2025
2. 12.01.2025