**The syllabus will be comprised in generic forms of Algorithms**

**1. Complexity , 2. Sorting , 3. Searching , 4 Graph , 5. Greedy , 6.Dynamic Programming**

1. Time and Space Complexity including all algorithms

2. Heap ,Quick ,Merge sort.

3. Linear , Binary Search and Usage

4. Graph Basics

5. BFS

6. DFS

7. Strongly Connected Components

8. Topological Sort

9. Spanning tree (Prim and kruskal) .

10.Huffman encoding and decoding.

11.Dynamic Programming overview

12. LCS , 0/1 Knapsack, CoinChange

13. Fractional Knapsack

14. Shortest Path [Dijkestra , BellmanFord]

15. Hashing