

Graph Theory

- Fundamental Concepts
 - ◆ Graph and its representations
 - ◆ Path, Cycle and Trail
 - ◆ Bipartite Graph
 - ◆ Vertex Degree, Counting and Bijections
 - Trees and Distance
 - ◆ Radius, Diameter and Center of graph
 - ◆ Minimum Spanning Trees
 - ◇ PRIMS Algorithm
 - ◇ Kruskal's Algorithm
 - ◆ Graph Traversal
 - ◇ Breadth First Search
 - ◇ Depth First Search
 - ◆ Shortest Path
 - ◇ Dijkstra's Algorithm
 - ◇ Floyd-Warshall Algorithm
 - Matchings And Factors
 - ◆ Maximum and Maximal Matching
 - ◆ Hall's Matching Condition
 - ◆ Stable Matching
 - ◆ Tutte's 1-factor Theorem
 - ◆ Edmonds' Blossom Algorithm
 - Connectivity And Coloring of Graph
 - ◆ k-connected Graph
 - ◆ Menger's Theorem
 - ◆ Maximum Network Flow
 - ◆ Vertex Coloring and Chromatic Number
 - ◆ Brook's Theorem
 - ◆ Turan's Theorem
- BOOKS:**
- ◆ Introduction to Graph Theory- Douglas B. West