**Homework 7.1**

1. Depth First Search is equivalent to which of the traversal in the Binary Trees?  
   **a) Pre-order Traversal**  
   b) Post-order Traversal  
   c) Level-order Traversal  
   d) In-order Traversal
2. Time Complexity of DFS is? (V – number of vertices, E – number of edges)  
   **a) O(V + E)**b) O(V)  
   c) O(E)  
   d) O(V\*E)

**Homework 7.2**

1. The Data structure used in standard implementation of Breadth First Search is?  
   a) Stack  
   **b) Queue**  
   c) Linked List  
   d) Tree
2. A person wants to visit some places. He starts from a vertex and then wants to visit every place connected to this vertex and so on. What algorithm he should use?  
   a) Depth First Search  
   **b) Breadth First Search**  
   c) Trim’s algorithm  
   d) Kruskal’s algorithm

**Homework 7.3**

1. Dijkstra’s Algorithm is used to solve \_\_\_\_\_\_\_\_\_\_\_\_\_ problems.  
   a) All pair shortest path  
   **b) Single source shortest path**  
   c) Network flow  
   d) Sorting
2. Which of the following is the most commonly used data structure for implementing Dijkstra’s Algorithm?  
   a) Max priority queue  
   b) Stack  
   **c) Circular queue**  
   d) Min priority queue

**Homework 7.4**

1. Bellmann ford algorithm provides solution for \_\_\_\_\_\_\_\_\_\_\_\_ problems.  
   a) All pair shortest path  
   b) Sorting  
   c) Network flow  
   **d) Single source shortest path**
2. Bellmann Ford algorithm is used to indicate whether the graph has negative weight cycles or not.  
   **a) True**  
   b) False

**Homework 7.5**

1. What approach is being followed in Floyd Warshall Algorithm?  
   a) Greedy technique  
   **b) Dynamic Programming**  
   c) Linear Programming  
   d) Backtracking
2. What is the running time of the Floyd Warshall Algorithm?  
   a) Big-oh(V)  
   b) Theta(V^2)  
   c) Big-Oh(VE)  
   **d) Theta(V^3)**

**Homework 7.6**

1. Boruvka’s Algorithm is also known as **Sollin’s algorithm.**
2. **True**
3. **False**
4. Which of the following is not the algorithm to find the minimum spanning tree of the given graph?
5. Boruvka's algorithm
6. Prim's algorithm
7. Kruskal's algorithm
8. **Bellman-Ford algorithm**