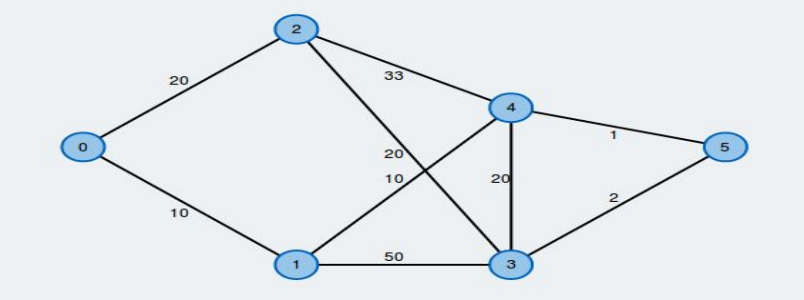
CSE 221: Algorithms
Worksheet 5
MST- Minimum Spanning Tree

1. Apply Prim's and Kruskal's algorithm to find the Minimum Spanning Tree of the following graph.



2. Prove with an example that if the weights on the edges of a connected graph are distinct, then there is a unique Minimum Spanning Tree.

3. Prove or disprove that Prim's and Kruskal's algorithm still apply even if the weights are negative.

4. Compare Prim and Kruskal's algorithm in terms of time complexity? Which is better?

5. The graph below shows potential bus routes in Dhaka city for the BRAC University staff buses. The weights are the level of traffic between different pick up points. Apply a suitable algorithm to design the final bus routes to minimize the cost of traffic.