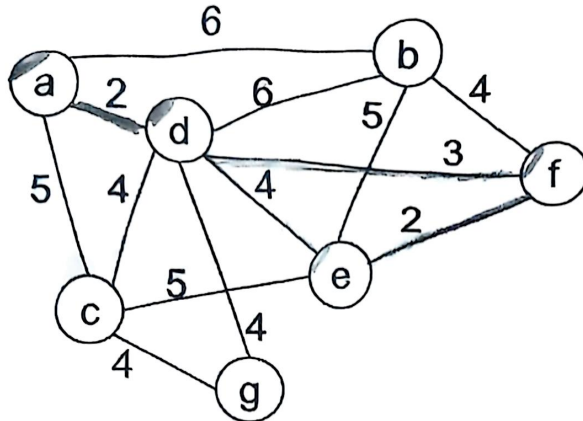
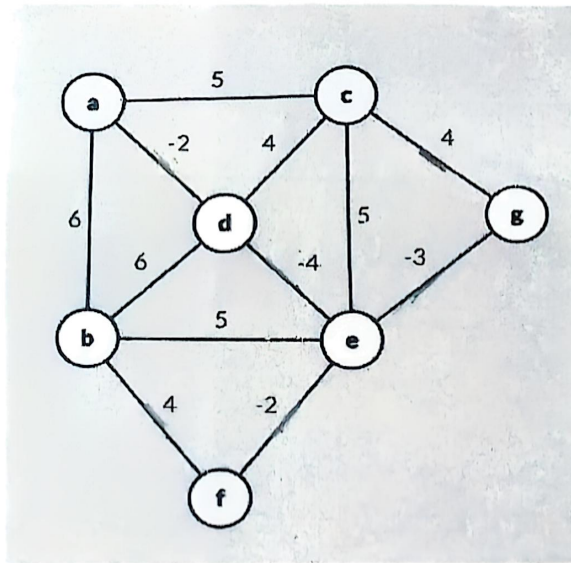


1.



Using Prim's algorithm, find the Minimum Spanning Tree (MST) for the given graph. Show the details of your calculation. Finally, draw the resulting MST. 8

2.



- a. Use the Bellman-Ford algorithm to find the shortest path from the source node *a* to all the other nodes. Determine if the graph contains any negative cycle. 8+2
- b. Can we apply MST algorithms (Prim, Kruskal) on the above graph to find the minimum spanning subgraph? Why or why not? 2