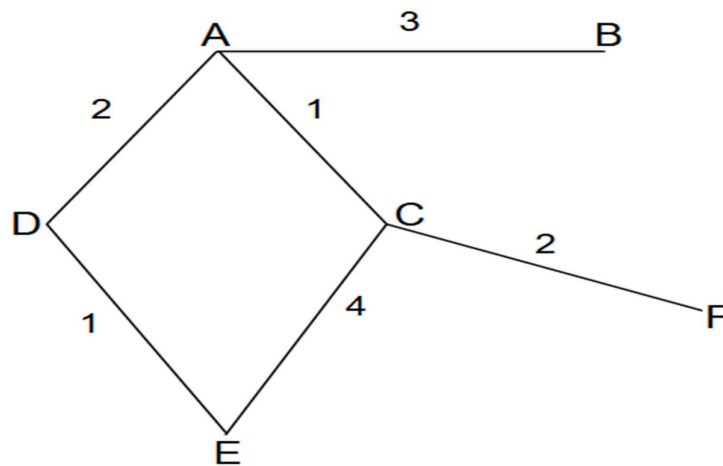


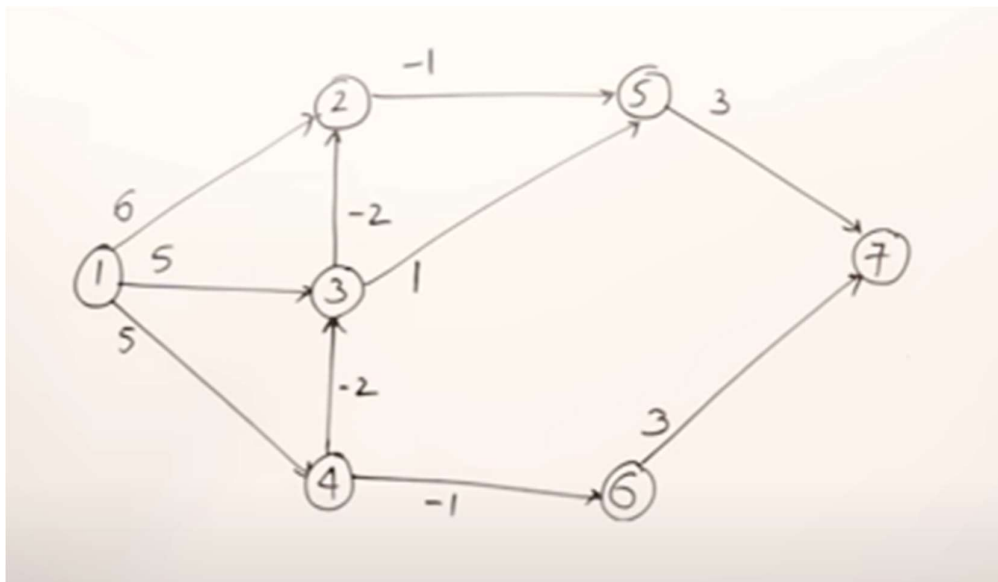
Using **Dijkstra's Algorithm**, find the **minimum weight paths** from the source vertex **A** to all other vertices in the given graph.

- Show each step of the algorithm, including updates to the tentative distances and the selection of the next vertex to process.
- Provide the final shortest path distances from **A** to all vertices.



Using the **Bellman-Ford Algorithm**, determine the **shortest path** from the source node **1** to all other nodes in the given graph.

- Show the step-by-step relaxation process for all edges over each iteration.
- Indicate the shortest distance from node **1** to every other node at the end of the algorithm.



Answer:

1- 0

2- 1

3- 3

4- 5

5- 0

6- 4

7- 3