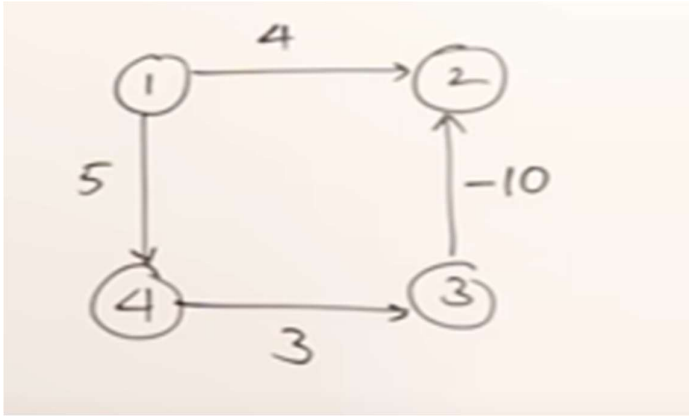


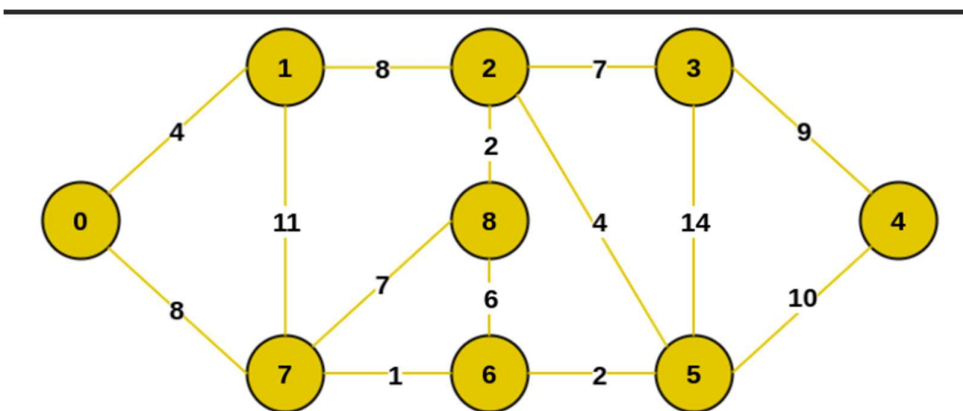
Using the **Bellman-Ford Algorithm**, determine the **shortest path** from the source node **1** to all other nodes in the given graph.

- 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.



Using the given graph, find the **Minimum Cost Spanning Tree (MST)** using both **Prim's Algorithm** and **Kruskal's Algorithm**.

- Start from node **0** as the source.
- Show each intermediate step of the tree creation process, including the nodes added and the edges selected at every step.



Answer:

- 1- 0
- 2- (-2)
- 3- 8
- 4- 5