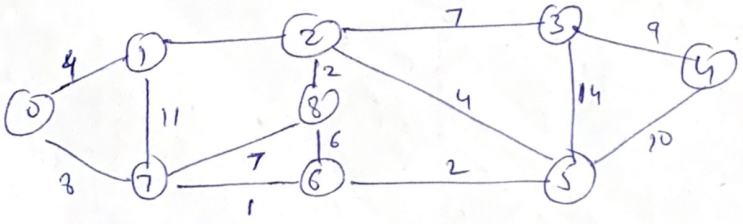
Kruskal's algorithm

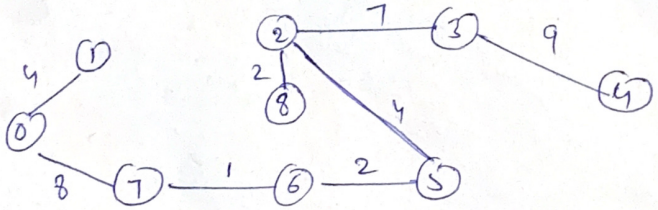


Arranging the edges in increasing order of their weights,

76	28	56	01	25	68	78	23	07	12	34	45
1	2	2	4	4	6	7	7	8	8	9	10
✓	✓	✓	✓	✓	×	×	✓	✓	×	✓	

17	35
11	14

Minimum spanning tree :



Minimum cost = 1 + 2 + 2 + 4 + 4 + 7 + 8 + 9

= 37 units

no. of vertices = 9 (n)

∴ no. of edges in the minimum spaning tree

= n-1

= 9-1 = 8

Edges 68 and 78 are not included, since they form a cycle.