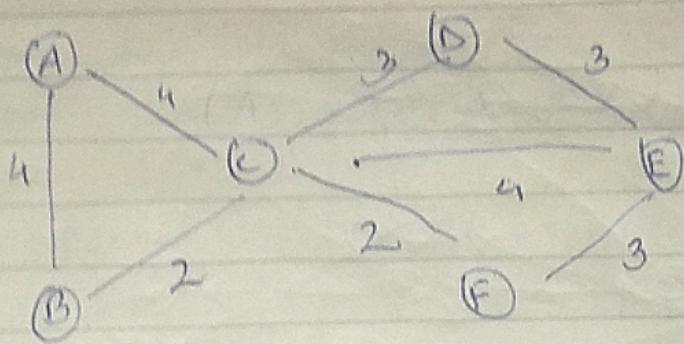


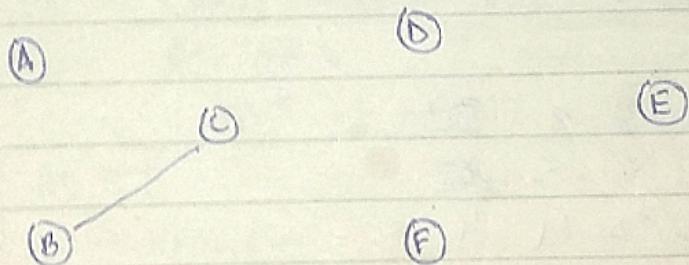
## Q.2 KRUSKAL'S ALGORITHM



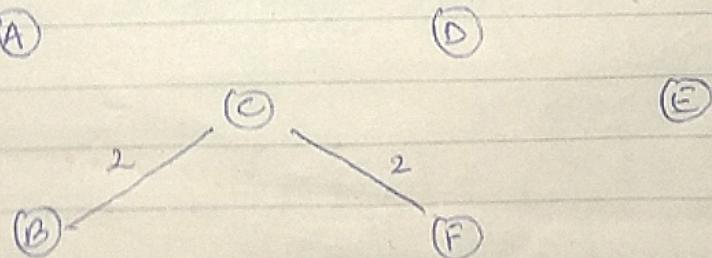
Arranging according to increasing order of weight

Edge	B, C	C, F	F, E	E, D	D, C	C, E	A, C	A, B
Weight	2	2	3	3	3	4	4	4

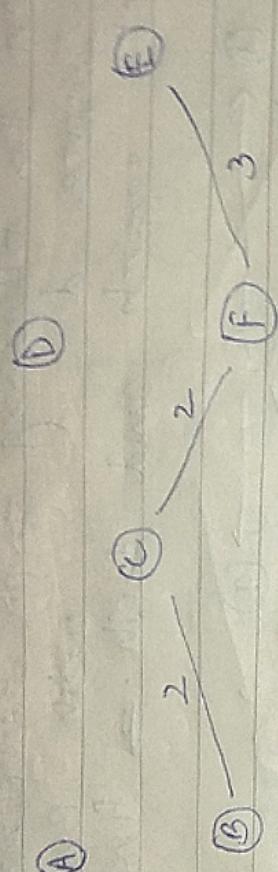
Step 1:



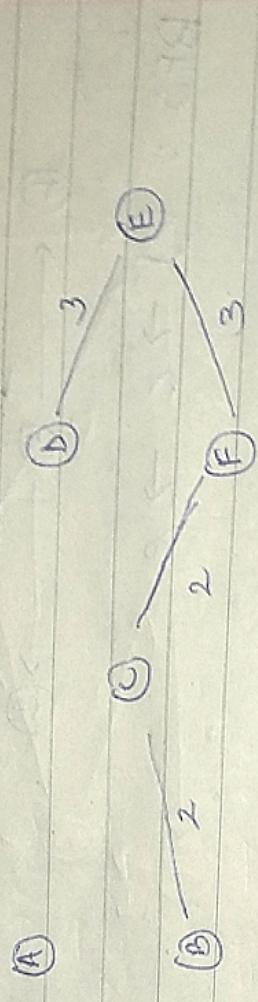
Step 2:



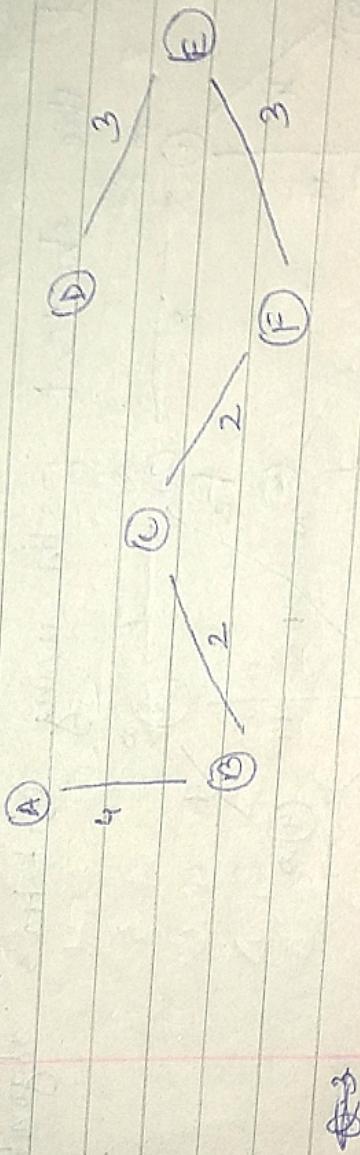
Step 3:



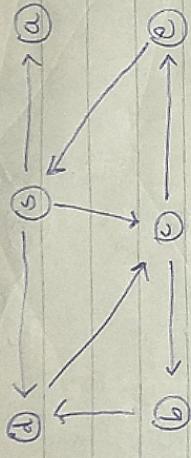
Step 4:



Step 5:



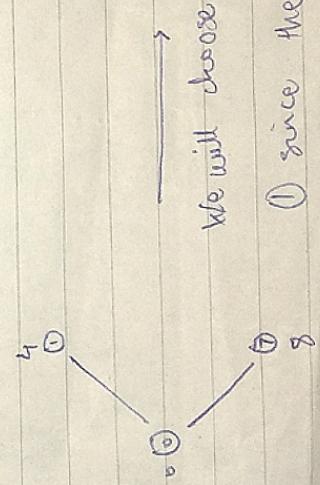
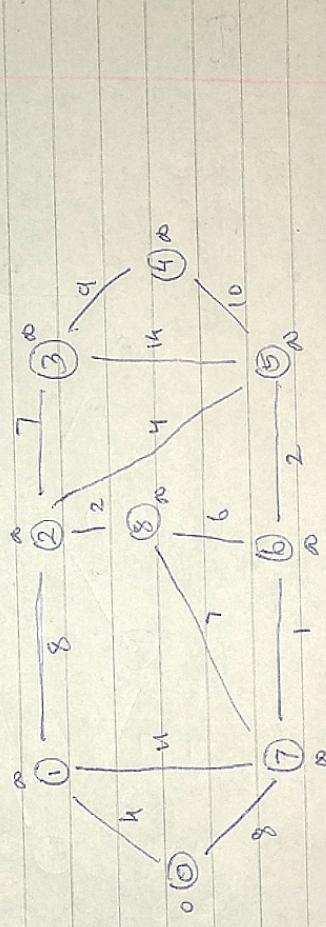
Q.3 Given the following graph, find element 'e' from the source 'd' using Breadth First search and depth first search.



DFS :  $d \rightarrow c \rightarrow e$

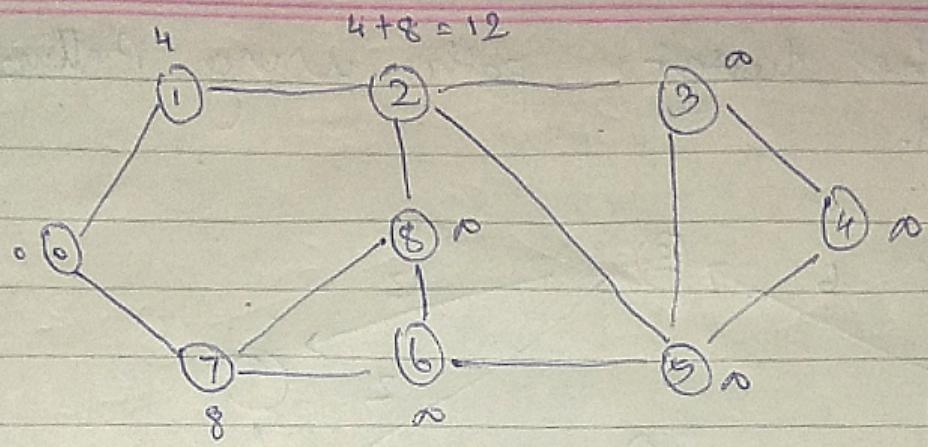
DFS :  $d \rightarrow c \rightarrow e$

Q.4 Find the shortest path using Dijkstra's algorithm.

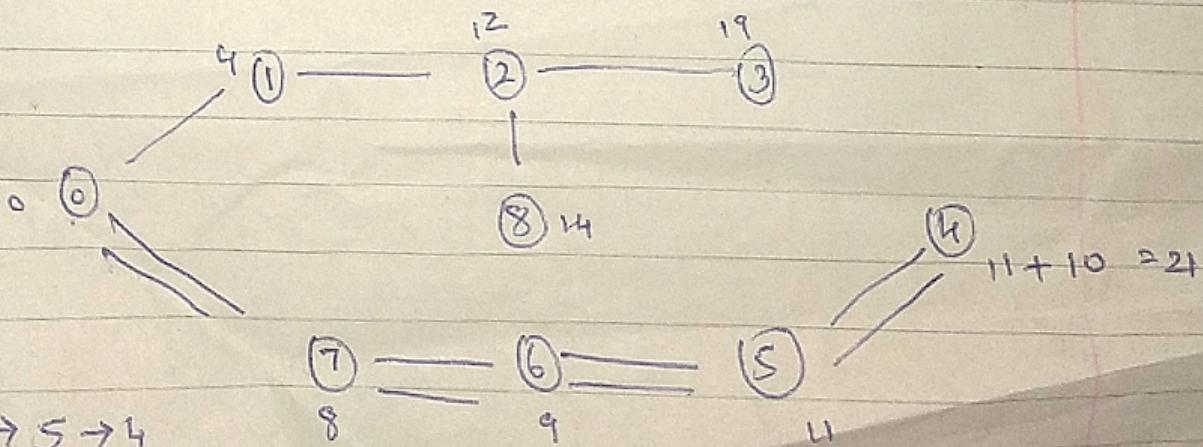
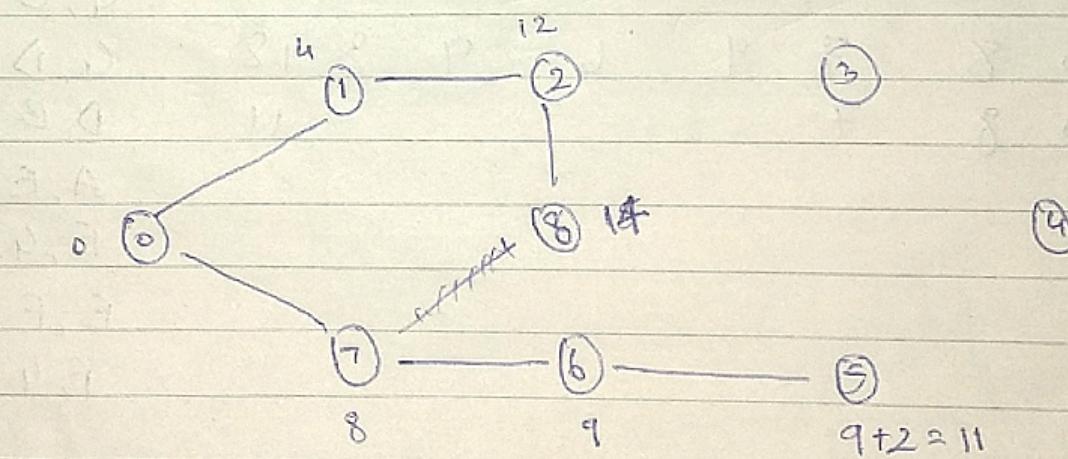
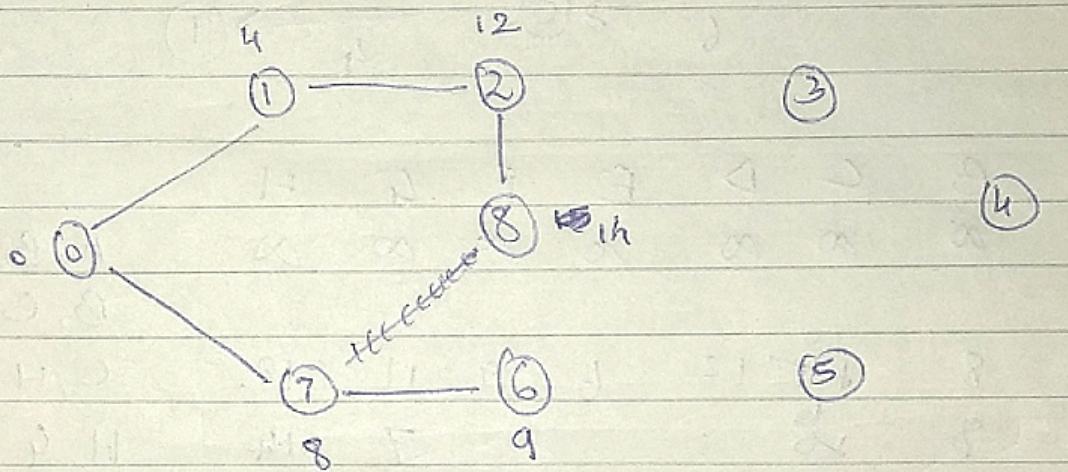


We will choose

① since the weight is minimum -



We will choose 7 as  $8 < 12$ . Since weights are carried on as path gets extended.



Find Path:

$$0 \rightarrow 7 \rightarrow 6 \rightarrow 5 \rightarrow 4$$

Q.4 Find the shortest path using Bellman-Ford algorithm.

