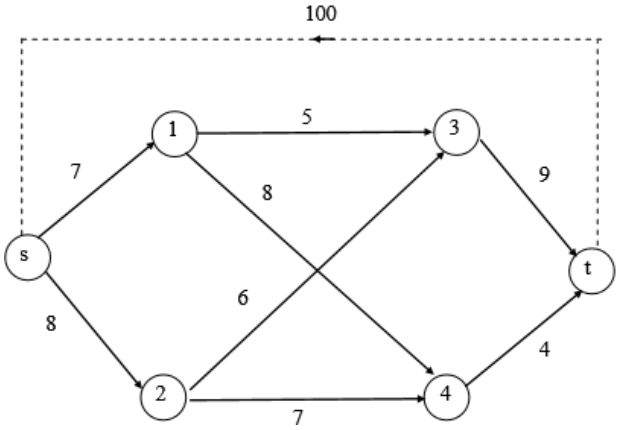
Step-1

Let us consider the network shown below.



In the above figure, number shown along with the path represents the length of the path.

Step-2

Let us find the shortest path between *s* and *t*.

For the shortest path, select the path from $\mathbf{4-t}$ (with length 4), instead of $\mathbf{9-t}$ (with length 4).

And to reach the node 4, we can select either $\mathbf{s-1-4}$ or $\mathbf{s-2-4}$

Therefore, the shortest path from $\mathbf{s-t}$ is $\boxed{\mathbf{s-1-4-t}}$ or $\boxed{\mathbf{s-2-4-t}}$

Step-3

The minimum spanning tree of the network is shown below.