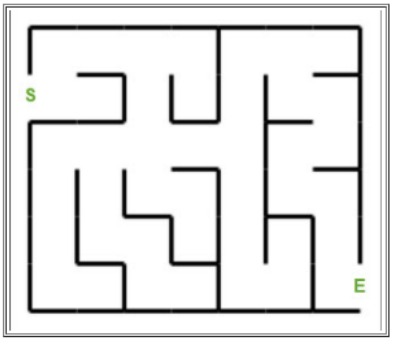
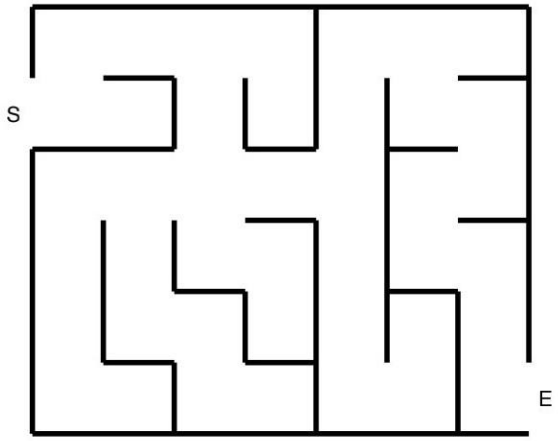
Use Dijkstra' s Algorithm to find the shortest path of the the following maze

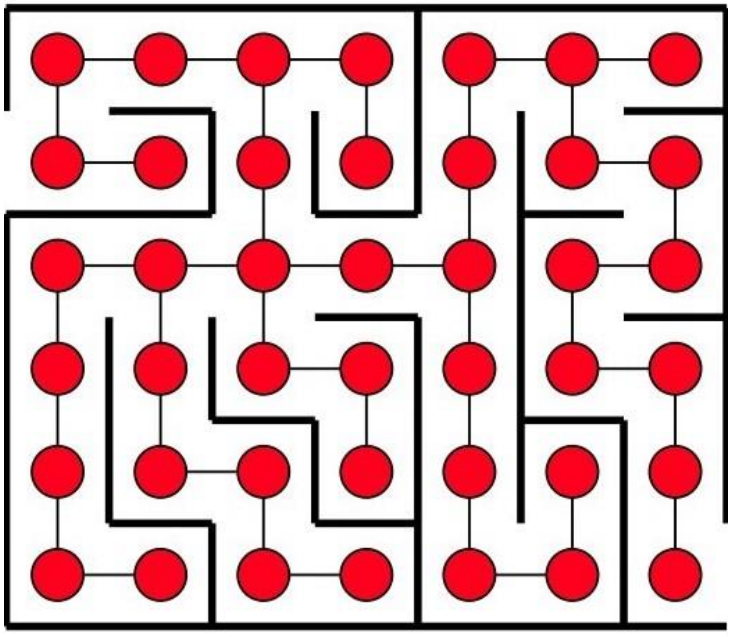


Ans:

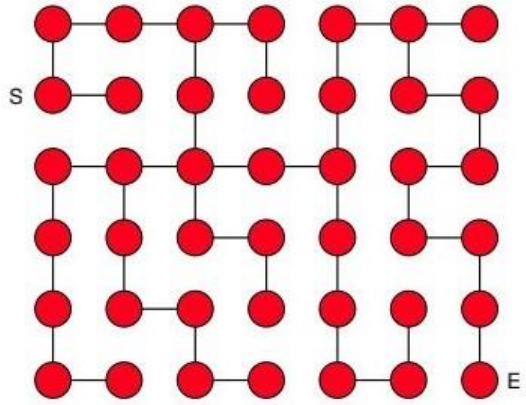
Step 1:



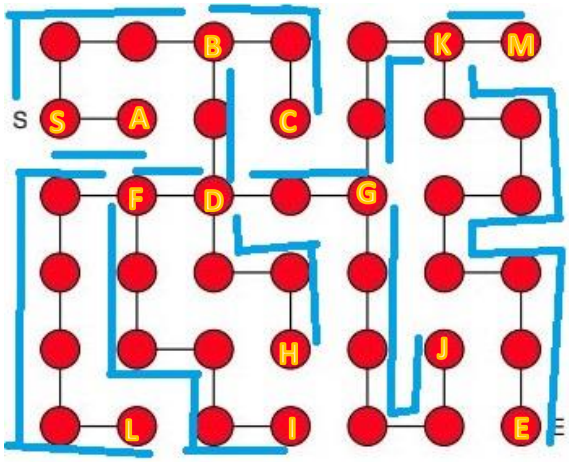
Step 2:



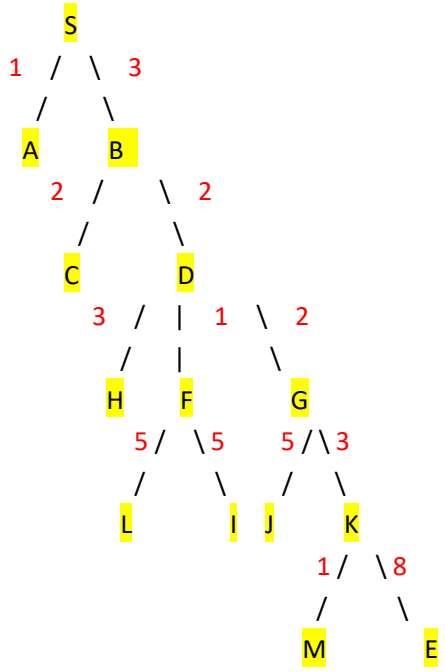
Step 3:



Step4:



Step 5:



Dijkstra's algorithm:

i means infinity

Red color means already visited

Green color mean current visiting

Vertex	V (s)	V (A)	V (B)	V (C)	V (D)	V (F)	V (I)	V (L)	V (G)	V (K)	V (M)	V (E)
S	0	0	0	0	0	0	0	0	0	0	0	0
A	i	1	1	1	1	1	1	1	1	1	1	1
B	i	3	3	3	3	3	3	3	3	3	3	3
C	i	i	i	5	5	5	5	5	5	5	5	5
D	i	i	i	5	5	5	5	5	5	5	5	5
E	i	i	i	i	i	i	i	i	i	i	18	18
F	i	i	i	i	6	6	6	6	6	6	6	6
G	i	i	i	i	7	7	7	7	7	7	7	7
H	i	i	i	in	8	8	8	8	8	8	8	8
I	i	i	i	i	i	i	12	12	12	12	12	12
J	i	i	i	i	i	i	i	i	12	12	12	12
K	i	i	i	i	i	i	i	i	10	10	10	10
L	i	i	i	i	i	i	12	12	12	12	12	12
M	i	i	i	i	i	i	i	i	i	i	11	11

Shortest path from S to E is 18