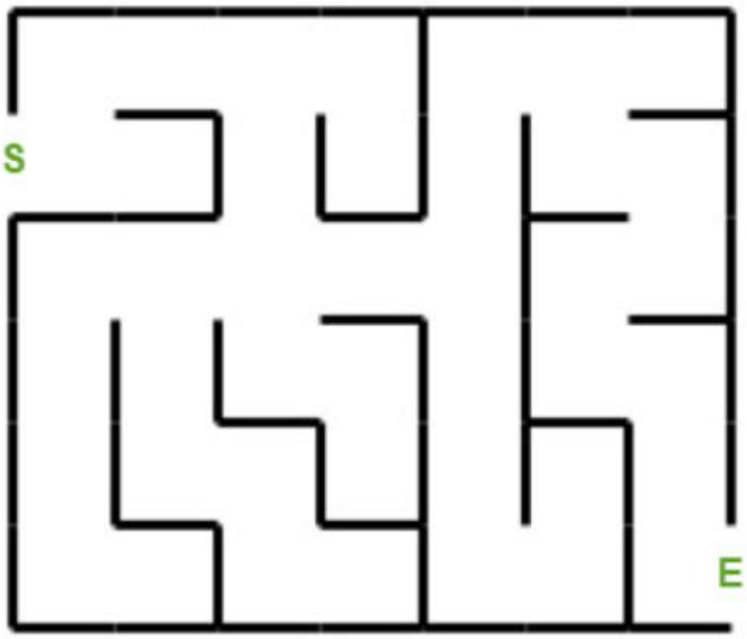
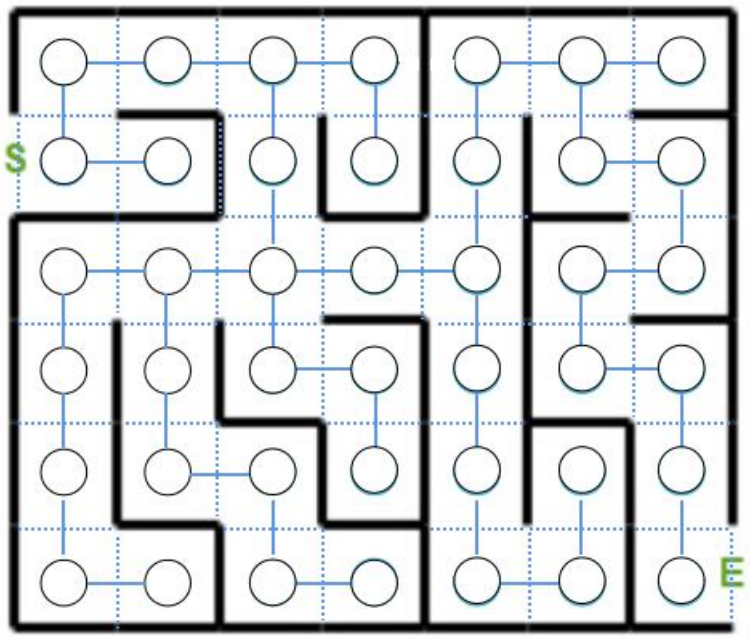
Q7 ==> Use Bellman Ford Algorithm to find the shortest path of the the following maze

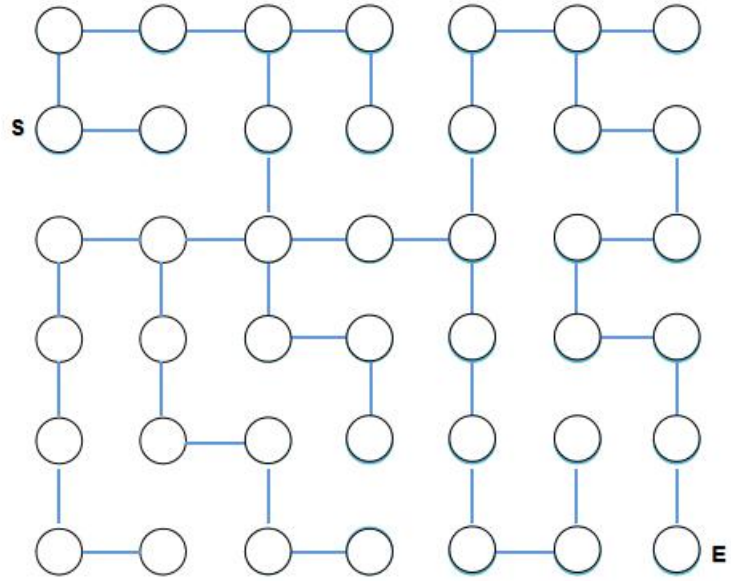
Step 1:



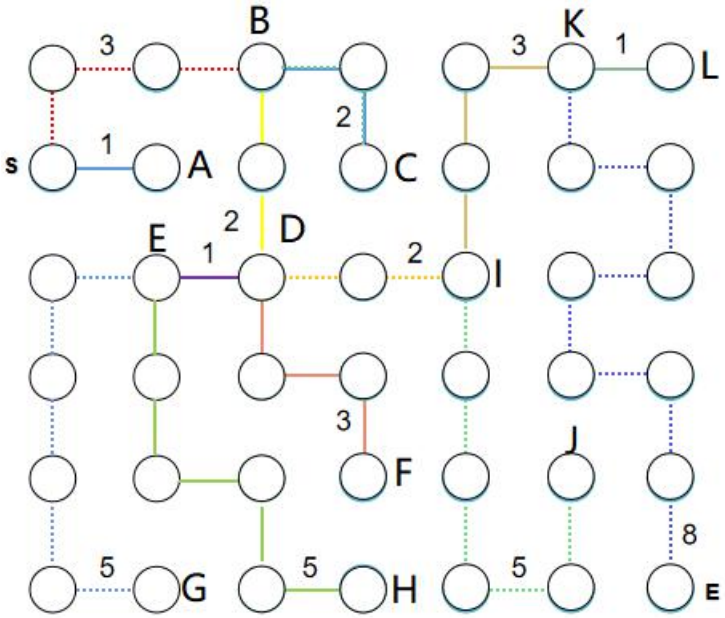
Step 2:



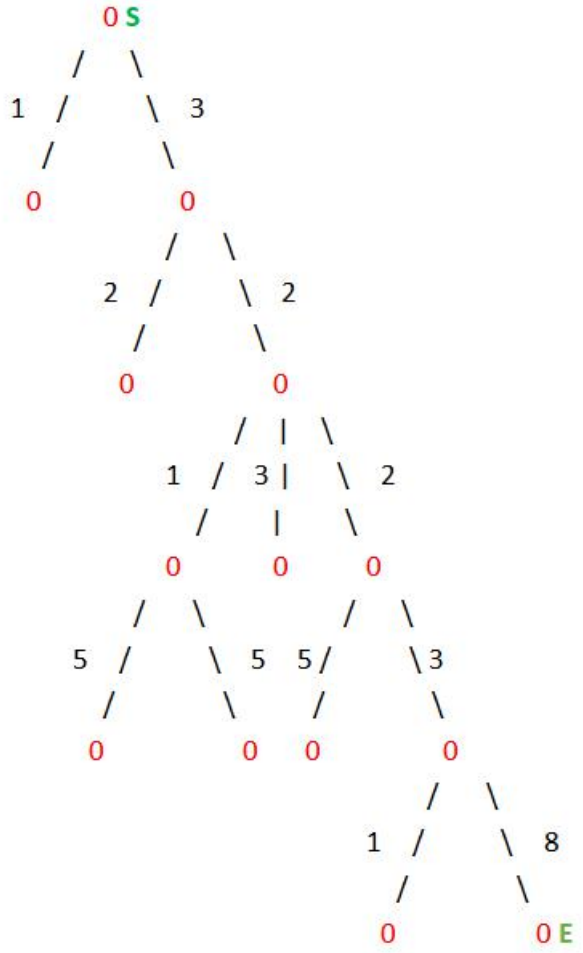
Step 3:



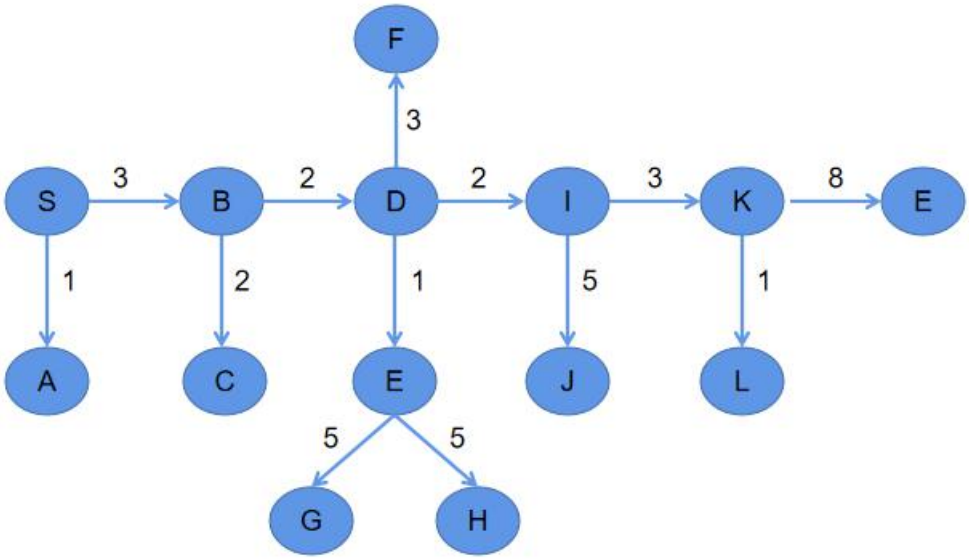
Step 4:



Step 5:


0 S
1
3
0
0
2
2
0
0
1
3
2
0
0
0
5
5
5
3
0
0
0
0
1
8
0
0 E

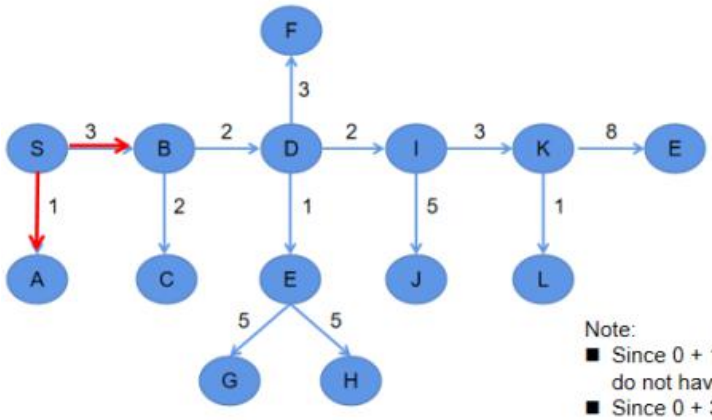
Step 6:


F
3
S
3
B
2
D
2
I
3
K
8
E
1
2
1
5
1
A
C
E
J
L
5
5
G
H

Step 7:

Cycle 1

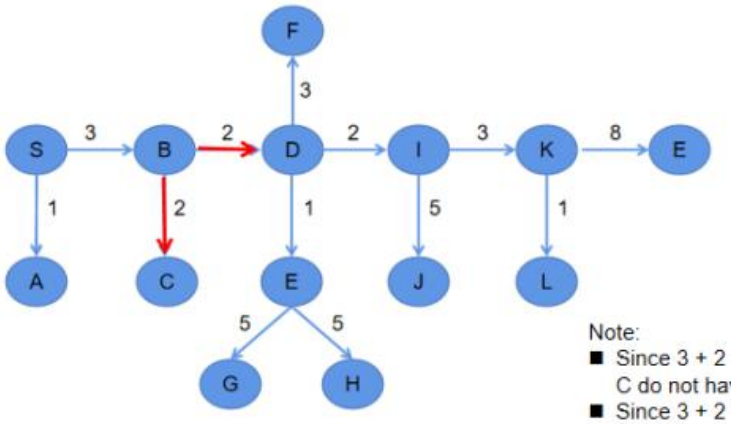
- S



Note:
- Since 0 + 1 = 1 < ∞, A's value changed to 1, but A do not have path to E, pass A
- Since 0 + 3 = 3 < ∞, B's value is changed to 3

0	1	3	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞	∞
S	A	B	C	D	E	F	G	H	I	J	K	L	E

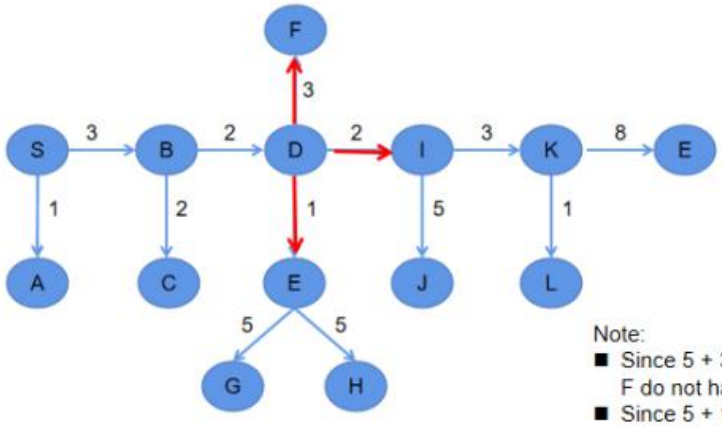
- B



Note:
- Since 3 + 2 = 5 < ∞, C's value changed to 5, but C do not have path to E, pass C
- Since 3 + 2 = 5 < ∞, D's value is changed to 5

0	1	3	5	5	∞	∞	∞	∞	∞	∞	∞	∞	∞
S	A	B	C	D	E	F	G	H	I	J	K	L	E

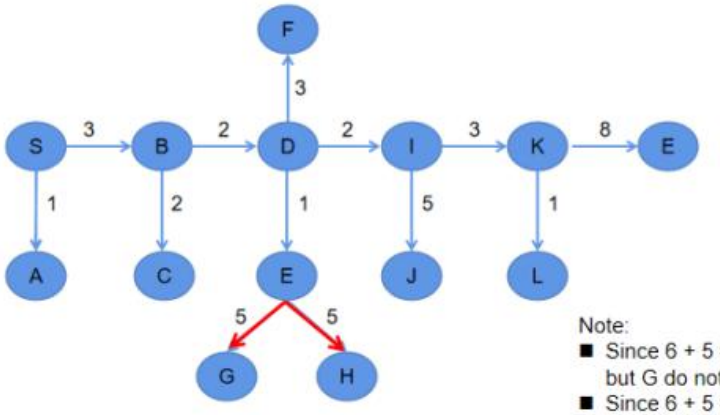
- D



Note:
- Since 5 + 3 = 8 < ∞, F's value changed to 8, but F do not have path to E, pass F
- Since 5 + 1 = 6 < ∞, E's value is changed to 6
- Since 5 + 2 = 7 < ∞, I's value is changed to 7

0	1	3	5	5	6	8	∞	∞	7	∞	∞	∞	∞
S	A	B	C	D	E	F	G	H	I	J	K	L	E

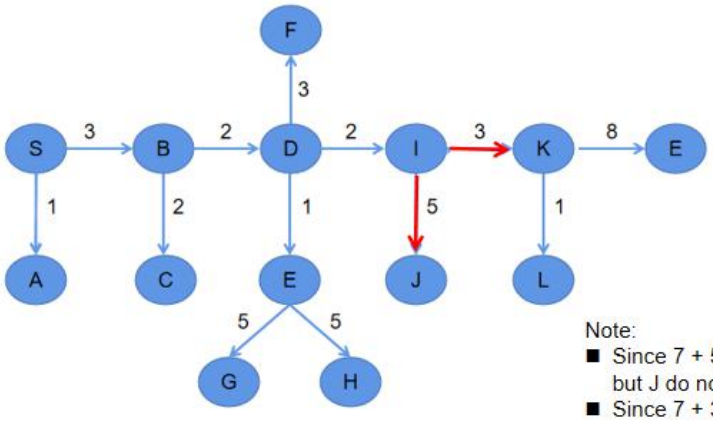
- E



Note:
- Since 6 + 5 = 11 < ∞, G's value changed to 11, but G do not have path to E, pass G
- Since 6 + 5 = 11 < ∞, H's value is changed to 11, but H do not have path to E, pass H

0	1	3	5	5	6	8	11	11	7	∞	∞	∞	∞
S	A	B	C	D	E	F	G	H	I	J	K	L	E

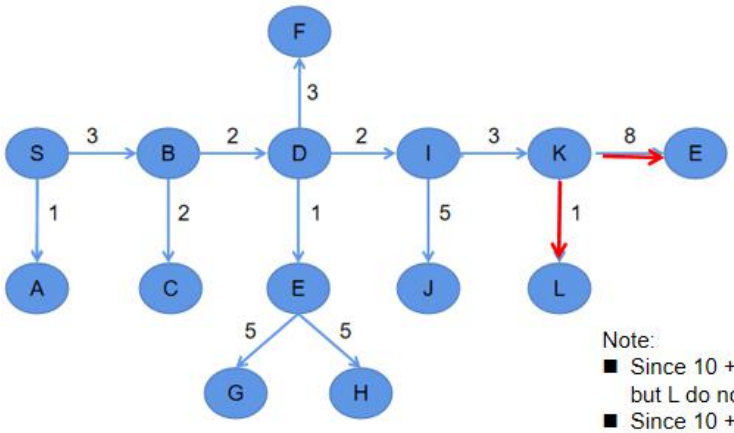
- I



Note:
- Since 7 + 5 = 12 < ∞, J's value changed to 12, but J do not have path to E, pass J
- Since 7 + 3 = 10 < ∞, K's value is changed to 10

0	1	3	5	5	6	8	11	11	7	12	10	∞	∞
S	A	B	C	D	E	F	G	H	I	J	K	L	E

- K



Note:
- Since 10 + 1 = 11 < ∞, L's value changed to 11, but L do not have path to E, pass L
- Since 10 + 8 = 18 < ∞, E's value is changed to 18

0	1	3	5	5	6	8	11	11	7	12	10	11	18
S	A	B	C	D	E	F	G	H	I	J	K	L	E

- End

  The process ends at Cycle 1 because none of the vertices is changed.