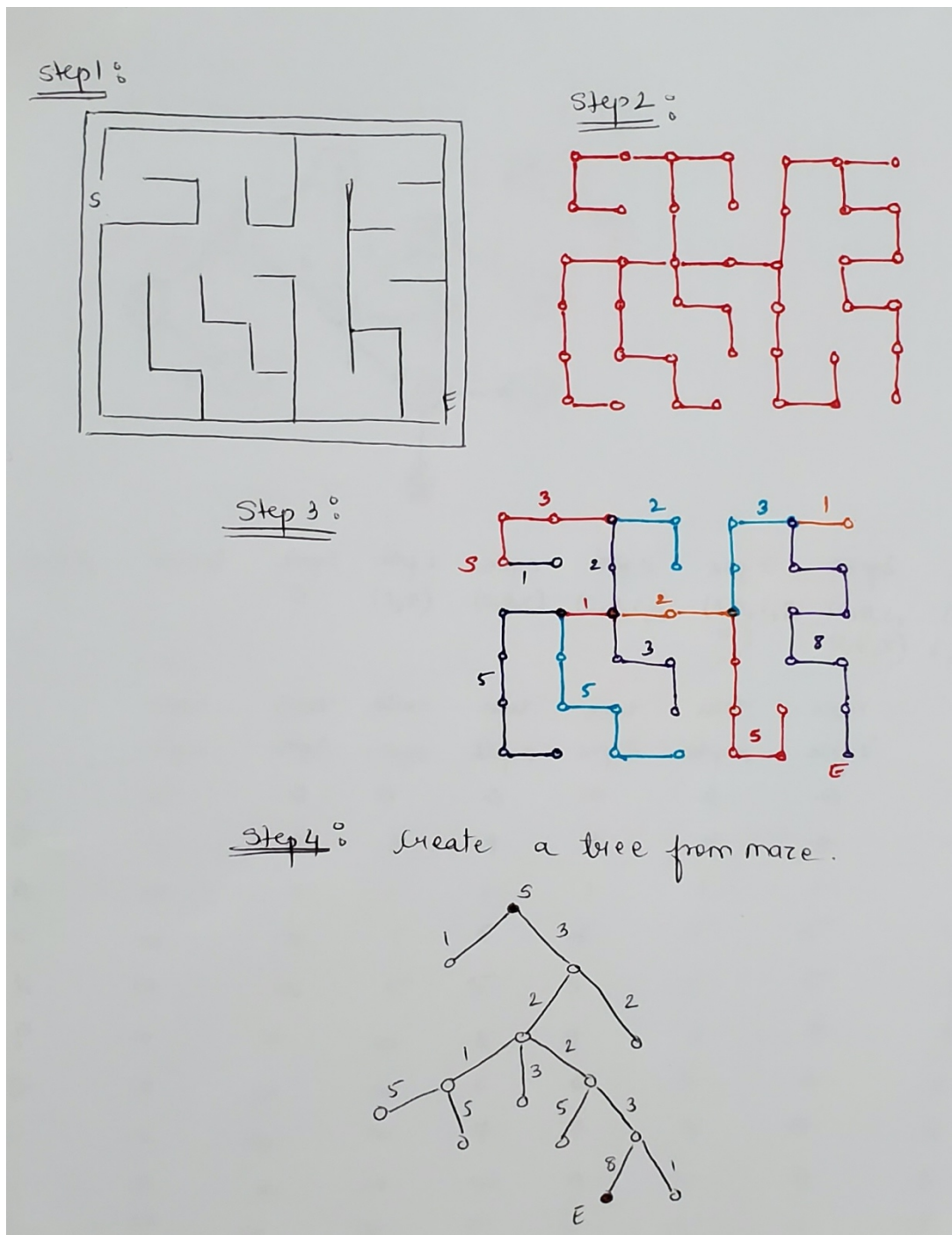


CS501 Homework 12

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



Step 5: $5+6=11 < \infty$. Change the value of T to 11

$5+6=11 < \infty$. Change the value of R to 11

Next node to visit => F

S	A	B	C	K	P	D	F	R	T	I	X	M	E
0	1	3	5	5	8	6	7	11	11	∞	∞	∞	∞

Step 6: $7+5=12 < \infty$. Change the value of I to 12

$7+3=10 < \infty$. Change the value of X to 10

Next node to visit => X

S	A	B	C	K	P	D	F	R	T	I	X	M	E
0	1	3	5	5	8	6	7	11	11	12	10	∞	∞

Step 7: $10+1=11 < \infty$. Change the value of M to 11

$10+8=18 < \infty$. Change the value of E to 18

S	A	B	C	K	P	D	F	R	T	I	X	M	E
0	1	3	5	5	8	6	7	11	11	12	10	11	18

The process ends at cycle one as there are no vertices to change.