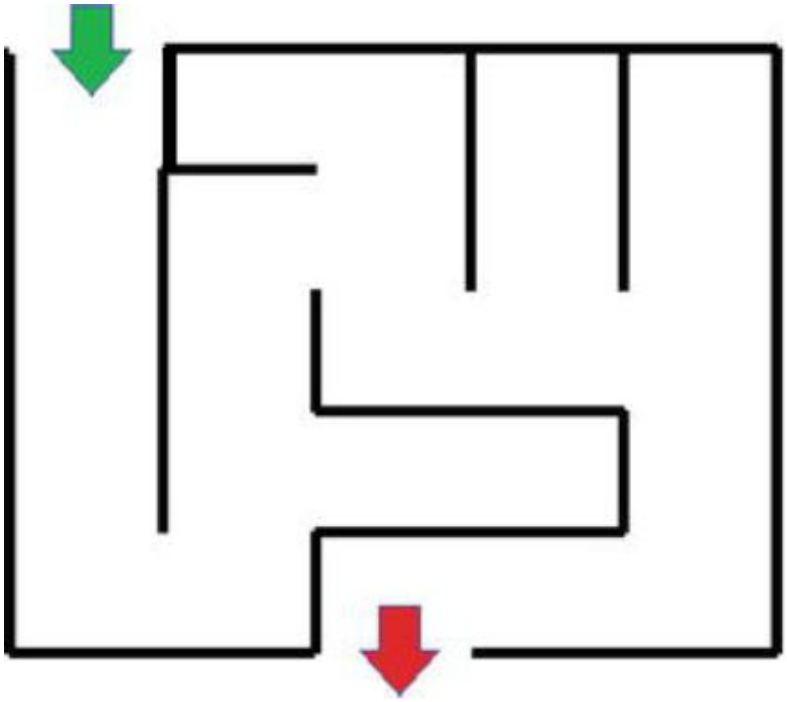
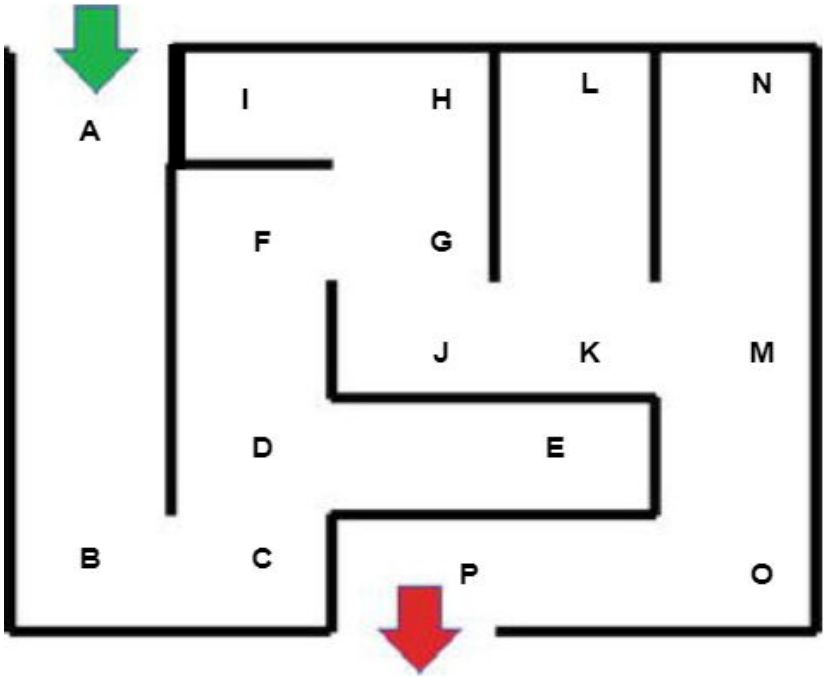


(a) Problem Description - A maze with one entrance and one exit shown in the above diagram. The problem is how to exit from the maze after entry. I have solved this problem using a simple reflex agent.

(d) Percepts - location(A/B/C/D/F/G/J/K/M/O/P)
→ Refer to the below diagram



Start state/Start vertex - A
Goal state/Goal vertex - P

(e) Sensor - location sensor

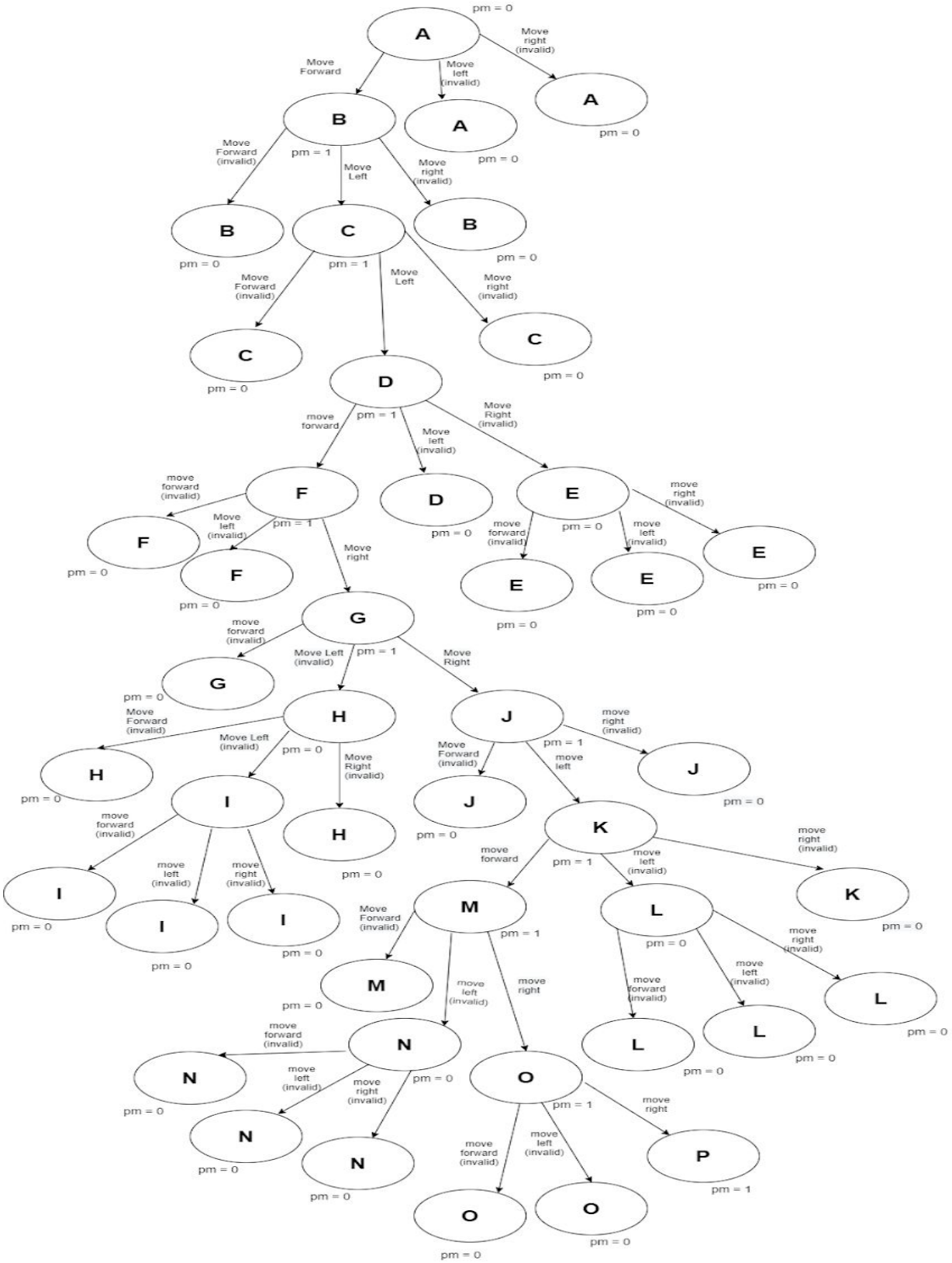
(f) Actions - move forward, move left, move right

(g) Actuator - motor, wheel

(h) List of all the environment states and the corresponding actions -

1. [A] - move forward/ move left/ move right
2. [B] - move forward/ move left/ move right
3. [C] - move forward/ move left/ move right
4. [D] - move forward/ move left/ move right
5. [F] - move forward/ move left/ move right
6. [G] - move forward/ move left/ move right
7. [J] - move forward/ move left/ move right
8. [K] - move forward/ move left/ move right
9. [M] - move forward/ move left/ move right
10. [O] - move forward/ move left/ move right

(i) Decision Tree with values of Performance Measure -



Start state/Start vertex - A
Goal state/Goal vertex - P
+1 point for chose correct next state
0 point for chose invalid next state