Week 8 Assignment 8

Due on: Fri, 11-11, 23:59 IST

1. Which one of the following statements is TRUE?
   a. Manipulation and Navigation problem in robotics are nearly the same.
   b. Manipulation and Navigation problems in robotics are different.
   c. Both manipulation and navigation problems are independent of planning.
   d. Robot motion planning is different in its exploration planning.

2. Which of the following statements are TRUE regarding the path planning of mobile robots?
   a. It is often the case that the robot moves in a straight line.
   b. It is a problem of path planning and velocity planning problem.
   c. It is a problem of path planning and velocity planning problem.
   d. It is a problem of path planning and different parts of its exploration planning.

3. Which one of the following statements is FALSE regarding the path planning and exploration planning of mobile robots?
   a. It is often the case that a robot moves in a straight line.
   b. It is a problem of path planning and velocity planning problem.
   c. It is a problem of path planning and velocity planning problem.
   d. It is a problem of path planning and different parts of its exploration planning.

4. To solve the Control Strategy Problem, typically:
   a. the robot should be able to navigate.
   b. the robot should be able to plan.
   c. the robot should be able to perceive.
   d. none of the above.

5. Which one of the following statements is FALSE regarding the path planning and exploration planning of mobile robots?
   a. It is often the case that a robot moves in a straight line.
   b. It is a problem of path planning and velocity planning problem.
   c. It is a problem of path planning and velocity planning problem.
   d. It is a problem of path planning and different parts of its exploration planning.

6. Robot's motion planning algorithm (in terms of computational complexity) working among moving obstacles in a 2D world with velocity bound V = 1:
   a. PPA
   b. O(V)
   c. O(V^2)
   d. PPA and O(V^2)

7. Robot's used for space application are:
   a. Sample collection and navigation.
   b. Deviate from beam line constraints.
   c. Two critical tasks in automation.
   d. None of the above.

8. Which one of the following statements is FALSE regarding the path planning and exploration planning of mobile robots?
   a. It is often the case that a robot moves in a straight line.
   b. It is a problem of path planning and velocity planning problem.
   c. It is a problem of path planning and velocity planning problem.
   d. It is a problem of path planning and different parts of its exploration planning.

9. Which one of the following statements is TRUE regarding the path planning and exploration planning of mobile robots?
   a. It is often the case that a robot moves in a straight line.
   b. It is a problem of path planning and velocity planning problem.
   c. It is a problem of path planning and velocity planning problem.
   d. It is a problem of path planning and different parts of its exploration planning.

10. Which one of the following statements is TRUE regarding the path planning and exploration planning of mobile robots?
    a. It is often the case that a robot moves in a straight line.
    b. It is a problem of path planning and velocity planning problem.
    c. It is a problem of path planning and velocity planning problem.
    d. It is a problem of path planning and different parts of its exploration planning.

11. Which one of the following statements is TRUE regarding the path planning and exploration planning of mobile robots?
    a. It is often the case that a robot moves in a straight line.
    b. It is a problem of path planning and velocity planning problem.
    c. It is a problem of path planning and velocity planning problem.
    d. It is a problem of path planning and different parts of its exploration planning.

12. Which one of the following statements is TRUE regarding the path planning and exploration planning of mobile robots?
    a. It is often the case that a robot moves in a straight line.
    b. It is a problem of path planning and velocity planning problem.
    c. It is a problem of path planning and velocity planning problem.
    d. It is a problem of path planning and different parts of its exploration planning.

13. Which one of the following statements is TRUE regarding the path planning and exploration planning of mobile robots?
    a. It is often the case that a robot moves in a straight line.
    b. It is a problem of path planning and velocity planning problem.
    c. It is a problem of path planning and velocity planning problem.
    d. It is a problem of path planning and different parts of its exploration planning.

14. Which one of the following statements is TRUE regarding the path planning and exploration planning of mobile robots?
    a. It is often the case that a robot moves in a straight line.
    b. It is a problem of path planning and velocity planning problem.
    c. It is a problem of path planning and velocity planning problem.
    d. It is a problem of path planning and different parts of its exploration planning.

15. Which one of the following statements is TRUE regarding the path planning and exploration planning of mobile robots?
    a. It is often the case that a robot moves in a straight line.
    b. It is a problem of path planning and velocity planning problem.
    c. It is a problem of path planning and velocity planning problem.
    d. It is a problem of path planning and different parts of its exploration planning.