

Unit 3 - Week 1:

Course outline

How to access the portal

Week 0 Assignment 0

Week 1:

Lecture 01 : Introduction to Robots and Robotics

Lecture 02 : Introduction to Robots and Robotics(Contd.)

Lecture 03 : Introduction to Robots and Robotics(Contd.)

Lecture 04 : Introduction to Robots and Robotics(Contd.)

Lecture 05 : Introduction to Robots and Robotics(Contd.)

Lesson 6 : Lecture Materials

Quiz : Assignment 1

Feedback for Week 1

Week 2:

Week 3:

Week 4:

Week 5:

Week 6:

Week 7:

Week 8:

Assignment Solution

Live Session

Text Transcripts

Assignment 1

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-08-14, 23:59 IST.

1) The term: robot has come from the word:

2 points

- a. robotica
- b. robo
- c. robota
- d. roboticana

No, the answer is incorrect.

Score: 0

Accepted Answers:

c. *robota*

2) Robots are used in manufacturing units for

2 points

- a. hard automation
- b. mass production
- c. piece production
- d. batch production

No, the answer is incorrect.

Score: 0

Accepted Answers:

d. *batch production*

3) Ideal spatial and planar manipulators should have

2 points

- a. 7 and 4 dof, respectively
- b. 6 and 3 dof, respectively
- c. 5 and 2 dof, respectively
- d. 4 and 2 dof, respectively

No, the answer is incorrect.

Score: 0

Accepted Answers:

b. *6 and 3 dof, respectively*

4) Ball and socket joint (spherical joint) is a

2 points

- a. linear joint with 1 dof
- b. rotary joint with 1 dof
- c. rotary joint with 2 dof
- d. rotary joint with 3 dof

No, the answer is incorrect.

Score: 0

Accepted Answers:

d. *rotary joint with 3 dof*

5) Hooke joint (Universal joint) is a

2 points

- a. linear joint with 1 dof
- b. rotary joint with 1 dof
- c. rotary joint with 2 dof
- d. rotary joint with 3 dof

No, the answer is incorrect.

Score: 0

Accepted Answers:

c. *rotary joint with 2 dof*

6) Drilling and Milling are the examples of

2 points

- a. point-to-point tasks
- b. continuous path tasks
- c. point-to-point and continuous path tasks, respectively
- d. continuous path and point-to-point tasks, respectively

No, the answer is incorrect.

Score: 0

Accepted Answers:

c. *point-to-point and continuous path tasks, respectively*

7) A redundant spatial manipulator has

2 points

- a. more than 6 dof
- b. less than 6 dof but more than 3 dof
- c. exactly 6 dof
- d. exactly 3 dof

No, the answer is incorrect.

Score: 0

Accepted Answers:

a. *more than 6 dof*

8) Workspace of spherical coordinate robot will be

2 points

- a. a cylindrical annular space
- b. a cuboid
- c. the volume swept between two partial spheres
- d. a cone

No, the answer is incorrect.

Score: 0

Accepted Answers:

c. *the volume swept between two partial spheres*

9) Which one is the first robotics company?

2 points

- a. Odetics
- b. Honda
- c. Cincinnati Milacron Corporation
- d. Unimation

No, the answer is incorrect.

Score: 0

Accepted Answers:

d. *Unimation*

10) Which one of the following statements is TRUE?

2 points

- a. Reachable workspace of a manipulator is a subset of its dextrous workspace
- b. Dextrous workspace of a manipulator is a subset of its reachable workspace
- c. No relationship exists between dextrous and reachable workspaces
- d. Summation of dextrous and reachable workspaces of a manipulator gives rise to its total workspace

No, the answer is incorrect.

Score: 0

Accepted Answers:

b. *Dextrous workspace of a manipulator is a subset of its reachable workspace*