

MY SO PRACTICE TEST

DIVISION C - HIGH SCHOOL, GRADES 9-12

PRACTICE TEST

Instructions

- You have 50 minutes to complete this test.
- You may write your answers directly in the test.
- You may use any notes or resources you have created or collected.
- You may use a calculator and scratch paper if necessary.
- Good Luck!

Test Questions

1. Robot is derived from which Czech word?
 - a. Rabota
 - b. Rebotat
 - c. Ribota
 - d. Robotat
2. Drives are also known as
 - a. Actuators
 - b. Controller
 - c. Manipulator
 - d. Sensors
3. Which of the following is not the functionality of robots?
 - a. Efficient Performance
 - b. Multifunctionality
 - c. Responsibility
 - d. Reprogrammability
4. Clockwise or anti clockwise rotation about the vertical axis to the perpendicular arm is provided through
 - a. Arm sweep
 - b. Elbow extension
 - c. Shoulder swivel
 - d. Wrist bend

5. What is the full form of AGV?
 - a.All Time Guided Vehicles
 - b.Alternate Guided Vehicles
 - cAutomatic Grouped Vehicles
 - dAutomatic Guided Vehicles

6. Radial movement (in & out) to the manipulator arm is provided by
 - a.Elbow extension
 - b.Wrist bend
 - c.Wrist swivel
 - d.Wrist yaw

7. AVG Robot is placed in which of the following category?
 - a.A Mobile Robot
 - b.A Natural Robot
 - c.A Saturated Robot
 - d.An Unsaturated Robot

8. Which of the following is a serial Robot?
 - a.Commercial Robot
 - b.Industrial Robot
 - c.In House Robot
 - d.None of these

9. The Robot designed with Cartesian coordinate systems has
 - a.Three linear movements
 - b.Three rotational movements
 - c.Two linear and one rotational movement
 - d.Two rotational and one linear movement

10. Which part of the Robot provides motion to the manipulator and end-effectors?
 - a.Actuator
 - b.Controller
 - c.Sensor
 - d.None of the above

11. The Robot designed with Polar coordinate system has?
 - a.Three linear movements
 - b.Three rotational movements
 - c.Two linear and one rotational movement
 - d.Two rotational and one linear movement

12. Which of the following is not an Actuator?
 - a.Digital Actuator
 - b.Hydraulic and Eclectic Actuator
 - c.Pneumatic Actuator
 - d.None of these

13. Physical structure of a robot which moves around is called?
 - a. End-effector
 - b. Joints
 - c. Links
 - d. Manipulator

14. The kinematic part of the robot or manipulator is called
 - a. End-Effectors
 - b. Joints
 - c. Links
 - d. Sensors

15. Scara robot is very suitable in which kind of operations
 - a. Assembly Operations
 - b. Rotary Operations
 - c. Single Operations
 - d. Translatory Operations

16. Who first introduced the word "robot"?
 - a. Isaac Asimov
 - b. Isaac Newton
 - c. Karel Capek
 - d. R2-D2

17. Where was the term "robotics" first used?
 - a. In a GM industrial plant
 - b. In science fiction stories
 - c. On the set of Star Trek
 - d. The Massachusetts Institute of Technology

18. What was the purpose of Asimov's Laws of Robotics?
 - a. To insure that robots always serve mankind
 - b. To insure that robots become our masters
 - c. To insure that robots become sentient
 - d. To insure that the military never gains control of robots

19. What do industrial robots look like?
 - a. A multi-jointed arm with a fixed base
 - b. A small vacuum cleaner
 - c. A soft, furry pet
 - d. Humanoid with legs and arms

20. Which of the following statements is true?
 - a. All robots act like humans
 - b. All robots are controlled remotely
 - c. All robots are electromechanical machines using electronic programming
 - d. All robots are intelligent

21. Which of the following systems uses motors and gears?
 - a. The control system
 - b. The propulsion system
 - c. The sensor and feedback system
 - d. The structural system

22. Which of the following systems provide support and stability?
 - a. The control system
 - b. The propulsion system
 - c. The sensor and feedback system
 - d. The structural system

23. Which one is not a requirement to be considered a robot?
 - a. have human like features
 - b. mechanical device that can move around
 - c. requires a computer program to operate
 - d. uses a micro-controller

24. Which of the following systems includes manipulators and actuators?
 - a. The control system
 - b. The propulsion system
 - c. The sensor and feedback system
 - d. The structural system

25. Which one is not a common robot application?
 - a. dangerous jobs
 - b. decision making jobs
 - c. dirty jobs
 - d. repetitive jobs

ANSWER KEY

- | | | | |
|-----|----------|-----|----------|
| 1. | D | 15. | A |
| 2. | A | 16. | C |
| 3. | C | 17. | B |
| 4. | A | 18. | A |
| 5. | D | 19. | A |
| 6. | A | 20. | C |
| 7. | A | 21. | B |
| 8. | B | 22. | D |
| 9. | A | 23. | A |
| 10. | A | 24. | C |
| 11. | D | 25. | B |
| 12. | A | | |
| 13. | D | | |
| 14. | B | | |