

Fundamentals of Robotics

Robotics · Answer Key · 12 Questions

1. Which field of study focuses on the design, construction, and operation of robots?

- A) Biology
- B) Robotics**
- C) Sociology
- D) Geology

2. What is the term for a mechanical arm that is programmed to perform tasks like welding or assembly?

- A) Robotic manipulator**
- B) Clockwork
- C) Piston
- D) Switch

3. Which component acts as the 'brain' of a robot to process information and make decisions?

- A) Battery
- B) Controller**
- C) Chassis
- D) Gear

4. What are the primary sources of energy used to power most mobile robots?

- A) Solar energy
- B) Wind
- C) Batteries**
- D) Thermal energy

5. Which sensors do robots typically use to detect obstacles or measure distance?

- A) Ultrasonic sensors**
- B) Microphones
- C) Taste sensors
- D) Smell sensors

6. In robotics, what do actuators perform?

- A) They store data
- B) They move parts of the robot**
- C) They sense temperature
- D) They clean the robot

7. What is the name for a robot that is designed to look and behave like a human?

- A) Android**
- B) Drone
- C) Rover
- D) Automaton

8. Which part of a robot provides the structural support for its components?

- A) Software
- B) Memory
- C) Chassis**
- D) Circuit

9. What is the primary function of a robotic end-effector?

- A) Processing data
- B) Moving the base
- C) Interacting with objects**
- D) Cooling the motor

10. Which type of robot is commonly used to explore the surface of other planets like Mars?

- A) Humanoid
- B) Rover**
- C) Submarine
- D) Drone

11. What does the acronym 'AI' stand for in the context of advanced robotics?

- A) Automated Intelligence
- B) Artificial Intelligence**
- C) Applied Interaction
- D) Active Integration

12. Which of these is a common method for controlling a robot's movement?

- A) Programming**
- B) Evaporation
- C) Photosynthesis
- D) Crystallization