

Robotics in Healthcare

Robotics · Answer Key · 20 Questions

1. What is a robotic device used to assist or replace a missing body part called?

A) Prosthetic

B) Stethoscope

C) Microscope

D) Pacemaker

2. Which type of robotic system is commonly used by surgeons to perform precise, minimally invasive operations?

A) Domestic helper

B) Surgical robot

C) Education robot

D) Space rover

3. What is the primary goal of an exoskeleton robot when worn by a human?

A) To filter blood

B) To improve physical strength or mobility

C) To replace the brain

D) To digest food

4. Which robotic technology is implanted to help regulate a patient's irregular heartbeat?

A) Artificial lung

B) Pacemaker

C) Bionic eye

D) Robotic skin

5. What do robotic arms in hospitals often help pharmacists do?

A) Write prescriptions

B) Dispensary medication

C) Perform brain surgery

D) Cook meals

6. What is a 'bionic eye' designed to do for a human?

A) Change eye color

B) Restore visual perception to the blind

C) Magnify distant stars

D) Record video

7. What type of robot is designed to provide comfort and companionship to elderly patients?

A) Social or therapeutic robot

- B) Demolition robot
- C) Industrial welder
- D) Assembly line robot

8. What does a robotic neuro-rehabilitation device help patients regain?

A) Vision

B) Movement after an injury

- C) Hair growth
- D) Sense of smell

9. Which body part is most commonly replaced by a robotic-assisted surgical procedure?

A) The knee or hip

- B) The entire stomach
- C) The fingernails
- D) The tongue

10. What do researchers use 'nanorobots' for in the context of human health?

A) Building tiny houses

B) Delivering medication to specific cells

- C) Repairing broken bones externally
- D) Cleaning hospital floors

11. What sensory information do some advanced prosthetic hands provide to the user?

A) Taste

B) Touch or pressure feedback

- C) Hearing
- D) Smell

12. In robotic surgery, what acts as the interface between the surgeon's hands and the surgical instruments?

A) A computer console

- B) A wireless remote
- C) A keyboard
- D) A touchscreen

13. What is a key benefit of using robots for repetitive laboratory testing on human samples?

- A) They get tired quickly
- B) They increase accuracy and reduce human error**
- C) They require lunch breaks
- D) They make the samples larger

14. Which robotic technology is used to assist individuals with paralysis to stand or walk?

- A) Robotic wheelchair
- B) Powered exoskeleton**
- C) Drone
- D) Air purifier

15. What do 'telepresence' robots allow doctors to do?

- A) Perform remote consultations with patients**
- B) Physically carry patients
- C) Repair internal organs
- D) Take blood samples

16. What is the main function of a robotic gait trainer in physical therapy?

- A) To help patients learn to walk again**
- B) To measure body temperature
- C) To provide oxygen
- D) To administer injections

17. What type of sensor do many healthcare robots use to avoid bumping into patients?

- A) Proximity sensors**
- B) Light sensors
- C) Sound sensors
- D) Pressure sensors

18. Which field combines robotics and biology to create machines that mimic human movement?

- A) Biomimetics**
- B) Geology
- C) Astrophysics
- D) Astronomy

19. Robotic insulin pumps are primarily used by patients with which health condition?

A) Diabetes

B) Asthma

C) Fractured bones

D) Common cold

20. What is a 'cobot' in a medical environment?

A) A robot that works collaboratively with a human

B) A robot that works independently

C) A robot made of wood

D) A robot that performs surgery alone