

Physics of the Human Body

Physics · Answer Key · 20 Questions

1. Which organ acts as a pump to create pressure for blood circulation in the human body?

- A) Lungs
- B) Heart**
- C) Liver
- D) Kidney

2. What type of energy does the human body use to move muscles?

- A) Chemical energy**
- B) Nuclear energy
- C) Magnetic energy
- D) Static energy

3. Which part of the eye acts like a lens to focus light onto the retina?

- A) Iris
- B) Pupil
- C) Cornea**
- D) Eyelid

4. What unit is commonly used to measure the energy content in food?

- A) Newtons
- B) Calories**
- C) Amps
- D) Watts

5. Which sound frequency range can the average healthy human ear detect?

- A) 0-10 Hz
- B) 20-20,000 Hz**
- C) 50,000-100,000 Hz
- D) Above 200,000 Hz

6. What is the primary function of the bones in the human body regarding physics?

- A) Electrical storage
- B) Structural support**
- C) Thermal insulation
- D) Sound amplification

7. Which physical process allows oxygen to move from the lungs into the blood?

- A) Diffusion**
- B) Condensation
- C) Evaporation
- D) Solidification

8. What determines the pitch of the human voice?

- A) The weight of the brain
- B) The vibration frequency of vocal cords**
- C) The color of the skin
- D) The size of the feet

9. Which body system uses electrical signals to send information?

- A) Digestive system
- B) Nervous system**
- C) Skeletal system
- D) Muscular system

10. What helps the body maintain a stable internal temperature?

- A) Homeostasis**
- B) Gravity
- C) Electromagnetism
- D) Friction

11. Which force keeps our feet on the ground while we walk?

- A) Magnetism
- B) Gravity**
- C) Static electricity
- D) Buoyancy

12. What is the name for the amount of matter in the human body?

- A) Volume
- B) Mass**
- C) Pressure
- D) Velocity

13. Which state of matter makes up the largest percentage of the human body?

- A) Solid
- B) Liquid**
- C) Gas
- D) Plasma

14. What type of waves are used in medical ultrasound imaging?

- A) Light waves
- B) Radio waves
- C) Sound waves**
- D) Microwaves

15. Which part of the body acts as a lever system when we lift an object?

- A) Skin
- B) Musculoskeletal system**
- C) Stomach
- D) Lungs

16. What is the primary purpose of sweating in terms of heat transfer?

- A) To increase friction
- B) To cool the body through evaporation**
- C) To store electrical charge
- D) To build muscle density

17. How is the pressure of blood usually measured in a clinical setting?

- A) Kilograms
- B) Millimeters of mercury (mmHg)**
- C) Centimeters
- D) Joules

18. Which organ uses a lens to refract light for vision?

- A) Ear
- B) Skin
- C) Eye**
- D) Tongue

19. What is the main physical property of bones that prevents them from breaking easily?

- A) Transparency
- B) Conductivity
- C) Tensile strength**
- D) Volatility

20. Which process involves the conversion of glucose into energy for human cells?

- A) Cellular respiration**
- B) Photosynthesis
- C) Combustion
- D) Distillation