

# Foundations of Human Biology

Human Biology · Answer Key · 25 Questions

---

**1. Which organelle is known as the 'powerhouse' of the cell because it generates most of the cell's supply of adenosine triphosphate (ATP), used as a source of chemical energy?**

- A) Nucleus
- B) Ribosome
- C) Mitochondrion**
- D) Golgi apparatus

**2. What is the primary function of red blood cells?**

- A) Fighting infection
- B) Transporting oxygen**
- C) Clotting blood
- D) Producing hormones

**3. The skeletal system provides support, protection, and allows for movement. Which bone is commonly known as the kneecap?**

- A) Humerus
- B) Femur
- C) Tibia
- D) Patella**

**4. Which part of the brain is primarily responsible for coordination, balance, and posture?**

- A) Cerebrum
- B) Cerebellum**
- C) Brainstem
- D) Hypothalamus

**5. Digestion begins in the mouth. What is the main role of saliva in this process?**

- A) Breaking down proteins
- B) Killing bacteria
- C) Lubricating food and starting carbohydrate digestion**
- D) Absorbing nutrients

**6. The respiratory system is responsible for gas exchange. What gas do humans primarily exhale?**

- A) Oxygen
- B) Nitrogen
- C) Carbon dioxide**
- D) Hydrogen

**7. Which type of muscle tissue is found in the walls of internal organs like the stomach and intestines, and is responsible for involuntary movements?**

- A) Skeletal muscle
- B) Cardiac muscle
- C) Smooth muscle**
- D) Nervous tissue

**8. The circulatory system transports nutrients, oxygen, and waste products throughout the body. What is the main function of the heart?**

- A) Filtering waste
- B) Pumping blood**
- C) Producing red blood cells
- D) Storing oxygen

**9. The nervous system allows for communication and control within the body. What is the basic structural and functional unit of the nervous system?**

- A) Neuron**
- B) Glial cell
- C) Axon
- D) Dendrite

**10. The endocrine system uses hormones to regulate bodily functions. Which gland produces insulin, a hormone that regulates blood sugar levels?**

- A) Thyroid gland
- B) Adrenal gland
- C) Pituitary gland
- D) Pancreas**

**11. What is the largest organ of the human body?**

- A) Liver
- B) Brain
- C) Skin**
- D) Lungs

**12. The immune system protects the body from disease. Which type of white blood cell is primarily responsible for producing antibodies?**

- A) Neutrophil
- B) Lymphocyte**
- C) Macrophage
- D) Eosinophil

**13. The process by which plants and some bacteria use sunlight, water, and carbon dioxide to create their own food is called:**

- A) Respiration
- B) Fermentation
- C) Photosynthesis**
- D) Transpiration

**14. Which of the following is a type of connective tissue found in joints that connects bone to bone?**

- A) Tendon
- B) Ligament**
- C) Cartilage
- D) Muscle

**15. The small intestine is the primary site for nutrient absorption. What are the finger-like projections that increase the surface area of the small intestine called?**

- A) Villi**
- B) Cilia
- C) Flagella
- D) Alveoli

**16. What is the primary function of the kidneys?**

- A) Producing bile
- B) Filtering blood and producing urine**
- C) Storing glycogen
- D) Regulating body temperature

**17. The reproductive system produces gametes. In males, what are the primary reproductive organs called?**

- A) Ovaries
- B) Uterus
- C) Testes**
- D) Prostate gland

**18. What is the scientific name for the thigh bone?**

- A) Tibia
- B) Fibula
- C) Humerus

**D) Femur**

**19. Which gas is essential for cellular respiration, the process by which cells generate energy?**

- A) Carbon dioxide
- B) Nitrogen

**C) Oxygen**

D) Methane

**20. The sense of sight is processed in which part of the brain?**

- A) Temporal lobe
- B) Parietal lobe
- C) Frontal lobe

**D) Occipital lobe**

**21. What is the fluid portion of blood called, which carries blood cells, nutrients, and waste products?**

**A) Plasma**

- B) Serum
- C) Lymph
- D) Cytoplasm

**22. Which hormone is primarily responsible for the 'fight or flight' response?**

- A) Insulin
- B) Thyroxine

**C) Adrenaline (Epinephrine)**

D) Estrogen

**23. What is the process of breaking down food into smaller molecules that can be absorbed by the body called?**

- A) Assimilation
- B) Metabolism

**C) Digestion**

D) Excretion

**24. The human eye focuses light onto which light-sensitive layer at the back of the eye?**

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

**25. Which chamber of the heart receives deoxygenated blood from the body?**

- A) Left atrium
- B) Left ventricle
- C) Right atrium**
- D) Right ventricle