

Biology Basics: Cells and Body Systems

Biology · Answer Key · 23 Questions

1. Which part of a plant cell controls all cell activities and contains genetic material?

- A) Cell wall
- B) Chloroplast
- C) Nucleus**
- D) Mitochondria

2. What is the primary function of chloroplasts in plant cells?

- A) Releasing energy
- B) Photosynthesis**
- C) Storing water
- D) Controlling entry and exit

3. In which part of the cell do chemical reactions happen?

- A) Cytoplasm**
- B) Vacuole
- C) Nucleus
- D) Cell membrane

4. What gives support and shape to plant cells?

- A) Cell membrane
- B) Cell wall**
- C) Cytoplasm
- D) Mitochondria

5. Which organelle is responsible for releasing energy through respiration?

- A) Nucleus
- B) Vacuole
- C) Mitochondria**
- D) Chloroplast

6. What is a key difference between plant and animal cells regarding structure?

- A) Animal cells have a nucleus, plant cells do not.
- B) Plant cells have a cell wall, animal cells do not.**
- C) Animal cells have chloroplasts, plant cells do not.
- D) Plant cells have mitochondria, animal cells do not.

7. How does the shape of plant and animal cells typically differ?

A) Plant cells have a fixed shape, animal cells have an irregular shape.

B) Animal cells have a fixed shape, plant cells have an irregular shape.

C) Both have fixed shapes.

D) Both have irregular shapes.

8. What is the main function of the circulatory system?

A) Digesting food

B) Transporting oxygen, nutrients, hormones, and waste

C) Exchanging gases

D) Producing sperm and eggs

9. Which component of the circulatory system pumps blood around the body?

A) Blood

B) Blood vessels

C) Heart

D) Arteries

10. What is the difference between oxygenated and deoxygenated blood in terms of color?

A) Oxygenated blood is dark red, deoxygenated blood is bright red.

B) Oxygenated blood is bright red, deoxygenated blood is dark red.

C) Both are bright red.

D) Both are dark red.

11. Which type of blood vessel carries blood away from the heart?

A) Veins

B) Capillaries

C) Arteries

D) Aorta

12. Where does the exchange of gases and nutrients primarily occur in the circulatory system?

A) Arteries

B) Veins

C) Heart

D) Capillaries

13. What are the main organs of the respiratory system listed?

- A) Heart, blood, blood vessels
- B) Nose, trachea, lungs**
- C) Stomach, small intestine, large intestine
- D) Ovaries, testes, uterus

14. In the respiratory system, where does gaseous exchange happen?

- A) Trachea
- B) Bronchi
- C) Alveoli**
- D) Lungs

15. What are common symptoms of asthma?

- A) Nausea and vomiting
- B) Wheezing, coughing, and shortness of breath**
- C) Headache and fever
- D) Muscle cramps and fatigue

16. What is a common treatment for asthma?

- A) Antibiotics
- B) Painkillers
- C) Inhalers**
- D) Blood transfusions

17. Which male reproductive organ produces sperm?

- A) Penis
- B) Testes**
- C) Urethra
- D) Vas deferens

18. Where does fertilization typically occur in the female reproductive system?

- A) Ovaries
- B) Uterus
- C) Fallopian tubes**
- D) Vagina

19. Why do testes hang outside the body in males?

- A) To allow for easier movement.
- B) Sperm need a cooler temperature to survive.**
- C) To increase sperm production.
- D) It is a cosmetic feature.

20. Which part of the digestive system is responsible for absorbing nutrients?

- A) Stomach
- B) Large intestine
- C) Small intestine**
- D) Oesophagus

21. What is the function of the large intestine in the digestive system?

- A) Breaking down food
- B) Absorbing nutrients
- C) Absorbing water**
- D) Producing digestive enzymes

22. What is a balanced diet supposed to contain?

- A) Only carbohydrates and proteins
- B) A variety of food groups including vitamins, minerals, and fibre**
- C) Mostly fats and sugars
- D) Only water and protein

23. What is cytoplasm described as?

- A) The cell control centre
- B) Jelly-like substance inside cells**
- C) Where food is broken down
- D) The site of photosynthesis