

Advanced Biology Essentials

Biology · Answer Key · 12 Questions

1. Which organelle is known as the powerhouse of the cell?

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

2. What is the primary sugar that provides energy for cellular processes?

- A) Glucose**
- B) Fructose
- C) Lactose
- D) Sucrose

3. Which molecule carries the genetic instructions for the development and function of living things?

- A) RNA
- B) Protein
- C) DNA**
- D) Lipid

4. What is the process by which plants convert sunlight into chemical energy?

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

5. Which blood cells are primarily responsible for fighting infections?

- A) Red blood cells
- B) White blood cells**
- C) Platelets
- D) Plasma

6. What is the basic structural and functional unit of all living organisms?

- A) Atom
- B) Molecule
- C) Cell**
- D) Tissue

7. In human genetics, what are the structures composed of DNA that contain genes?

A) Chromosomes

B) Ribosomes

C) Vacuoles

D) Lysosomes

8. Which gas do humans exhale as a byproduct of cellular respiration?

A) Oxygen

B) Nitrogen

C) Carbon dioxide

D) Hydrogen

9. What is the enzyme in the stomach that helps digest proteins?

A) Amylase

B) Pepsin

C) Lipase

D) Lactase

10. Which part of the brain controls balance and coordination?

A) Cerebrum

B) Brainstem

C) Cerebellum

D) Thalamus

11. What is the process of cell division that results in two identical daughter cells?

A) Mitosis

B) Meiosis

C) Fertilization

D) Transcription

12. Which chemical base pairs with Adenine in a DNA molecule?

A) Guanine

B) Cytosine

C) Thymine

D) Uracil