

Fundamentals of Biochemistry

Biochemistry · Answer Key · 25 Questions

1. Which molecule do plants use to store energy that humans eat in bread and pasta?

- A) Protein
- B) Starch**
- C) Fat
- D) Vitamin

2. Which substance makes up the majority of a human body?

- A) Water**
- B) Iron
- C) Sugar
- D) Salt

3. What are the 'building blocks' that make up proteins?

- A) Sugars
- B) Fats
- C) Amino acids**
- D) Minerals

4. Which sugar is the primary source of energy for human cells?

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

5. What is the main role of DNA in a living organism?

- A) To digest food
- B) To store genetic information**
- C) To provide energy
- D) To build muscles

6. Which type of biomolecule is used by the body for long-term energy storage and insulation?

- A) Vitamins
- B) Lipids**
- C) Sugars
- D) Proteins

7. Which of these is an example of a simple sugar?

- A) Cellulose
- B) Starch
- C) Glucose**
- D) Fiber

8. What is the name of the protein in red blood cells that carries oxygen?

- A) Hemoglobin**
- B) Insulin
- C) Collagen
- D) Keratin

9. Which mineral is essential for building strong bones and teeth?

- A) Iron
- B) Calcium**
- C) Sodium
- D) Potassium

10. What do enzymes do in the human body?

- A) Store fat
- B) Make skin
- C) Speed up chemical reactions**
- D) Carry oxygen

11. Which vitamin is commonly found in citrus fruits and helps keep our immune system healthy?

- A) Vitamin A
- B) Vitamin D
- C) Vitamin C**
- D) Vitamin E

12. What gas do humans exhale as a waste product of cellular respiration?

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

13. Which process do plants use to create their own food from sunlight?

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

14. What are enzymes primarily made of?

A) Proteins

B) Fats

C) Water

D) Minerals

15. Which nutrient is most important for repairing and building muscle tissue?

A) Carbohydrates

B) Fats

C) Proteins

D) Fiber

16. What is the main chemical element found in all organic molecules?

A) Gold

B) Carbon

C) Silver

D) Oxygen

17. Which part of the cell is known as the 'powerhouse' because it produces energy?

A) Nucleus

B) Mitochondria

C) Ribosome

D) Cell wall

18. What is the substance that gives green plants their color?

A) Hemoglobin

B) Chlorophyll

C) Keratin

D) Melanin

19. Which food group is a rich source of dietary fiber?

A) Meat

B) Vegetables

C) Eggs

D) Butter

20. What chemical is used by the body to help digest fats?

A) Bile

B) Insulin

C) Adrenaline

D) Glucose

21. Which molecule is responsible for carrying instructions to build proteins?

- A) RNA**
- B) Starch
- C) Salt
- D) Iron

22. Where is glycogen stored in the human body for quick energy use?

- A) Lungs
- B) Liver and muscles**
- C) Stomach
- D) Brain

23. Which of these is a liquid fat at room temperature?

- A) Butter
- B) Lard
- C) Olive oil**
- D) Tallow

24. What is the scientific term for the breakdown of food into energy?

- A) Photosynthesis
- B) Respiration**
- C) Diffusion
- D) Oxidation

25. Which element is found in all proteins but not in most carbohydrates?

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