

Nutrients and New Molecule Production

Biology · Answer Key · 10 Questions

1. What is the primary role of nutrients for the organism?

A) To provide energy and ensure assimilation

- B) To directly build new molecules
- C) To export hormones and enzymes
- D) To store lipids and proteins

2. What is assimilation in the context of cells?

A) The construction of their own molecules by cells

- B) The absorption of nutrients from the intestine
- C) The production of energy for the organism
- D) The export of proteins and hormones

3. Where is the synthesis of proteins primarily localized within a cell?

A) In the nucleus

- B) In the cytoplasm
- C) In the cell membrane
- D) In the endoplasmic reticulum

4. What are proteins assembled from?

A) Amino acids

- B) Lipids
- C) Carbohydrates
- D) Nucleotides

5. In the experiment with the rat, what was used to label the amino acids?

A) An atom of radioactive carbon

- B) A molecule of radioactive nitrogen
- C) A radioactive isotope of oxygen
- D) A tracer element

6. After several consecutive days of feeding labeled amino acids to the rat, where were these amino acids found?

A) In all cells of the organism

- B) Only in the liver cells
- C) In the blood and digestive system
- D) Exclusively in exported products

7. What does the graph showing the evolution of radioactivity in liver proteins indicate?

A) That labeled amino acids are incorporated into liver proteins over time

- B) That liver proteins are constantly degraded
- C) That the rat's liver stopped producing proteins
- D) That radioactivity decreases rapidly in liver cells

8. The diagram on the left illustrates the assembly of proteins from what?

A) Amino acids

- B) Lipids
- C) Sugars
- D) Fatty acids

9. What are some of the 'other products exported' mentioned in the text?

A) Hormones

- B) Cellular structures
- C) Energy
- D) Nutrients

10. The renewal of cells and tissues requires the production of new what?

A) Molecules

- B) Energy
- C) Nutrients
- D) Absorption