



Standardized Test Prep

Answer the following items on a separate piece of paper.

MULTIPLE CHOICE

- Which of the following statements about enzymes is true?
 - Enzymes can be biological catalysts.
 - Enzymes increase the speed of a chemical reaction.
 - Enzymes are highly specific.
 - All of the above
- Which of the following statements about denaturing is true?
 - Denaturing occurs when a protein unfolds.
 - Denaturing occurs when a carbohydrate is heated.
 - Denaturing does not affect the tertiary structure of an enzyme.
 - Denaturing increases the rate of a chemical reaction.
- The process in which molecules in a cell break down to produce smaller molecules and energy is called
 - glycogenesis.
 - biosynthesis.
 - catabolism.
 - metabolism.
- Which of the following is partially digested by saliva in the mouth?
 - glucose
 - starch
 - fat
 - protein
- In the human body, the storage form of
 - glucose is maltose.
 - triglycerides is protein.
 - carbohydrates is glycogen.
 - nucleic acids is amino acids.
- The purpose of insulin is to
 - regulate glucose levels in the body.
 - catalyze the oxidation of fatty acids.
 - stimulate RNA production.
 - initiate DNA replication.

- Which of the following statements about fats is true?
 - Fats serve as a reserve supply of energy.
 - Fats are stored in the adipose tissue.
 - Fats act as insulators.
 - All of the above
- When carbohydrates are unavailable or unable to provide the energy needs of the body,
 - glucose is converted to glycogen.
 - proteins or fats are used for energy.
 - amino acids form proteins.
 - All of the above
- Which of the following statements is true?
 - RNA contains the base uracil rather than thymine, which occurs in DNA.
 - Both RNA and DNA are double-stranded helixes.
 - The ribose sugar unit is in the backbone of DNA.
 - None of the above

SHORT ANSWER

- Draw a simple dipeptide, and label the functional groups and peptide linkage.
- Describe the shape of the DNA molecule, and discuss how the DNA molecule is held in this shape.

EXTENDED RESPONSE

- The body has numerous energy reserves. What are they, and where are they found in the body? Which of these reserves provides the greatest source of quick energy?
- Explain how it is possible to denature a protein without breaking the polypeptide chain.

Test TIP

If a question or an answer choice contains an unfamiliar term, try to break the word into parts to determine its meaning.