

Biology Chapter 2 Self Quiz PDF

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Which subatomic particle is negatively charged?

- Proton
- Neutron
- Electron
- Nucleus

What is the primary role of DNA in cells?

- Energy production
- Protein synthesis
- Genetic information storage
- Cell membrane structure

Which macromolecule is primarily responsible for catalyzing biochemical reactions?

- Carbohydrates
- Lipids
- Proteins
- Nucleic acids

What type of bond involves the sharing of electron pairs between atoms?

- Ionic bond
- Covalent bond
- Hydrogen bond
- Metallic bond

Which property of water allows it to dissolve many substances?

- Cohesion
- Adhesión

- Polarity
- High specific heat

What is the monomer unit of proteins?

- Monosaccharide
- Amino acid
- Nucleotide
- Fatty acid

What is the primary function of carbohydrates in cells?

- Genetic information storage
- Energy storage and supply
- Structural support
- Catalyzing reactions

Which of the following is a property of water that helps regulate temperature in organisms?

- Low density
- High specific heat
- High pH
- Low surface tension

Explain the significance of hydrogen bonds in the properties of water and the structure of DNA.

Compare and contrast the structure and function of DNA and RNA.

Which of the following are properties of water that are essential for life? (Select all that apply)

- Cohesion
- High specific heat
- Low boiling point
- Solvent properties

Which of the following are types of carbohydrates? (Select all that apply)

- Monosaccharides
- Amino acids
- Disaccharides
- Polysaccharides

Explain how the structure of water contributes to its role as a universal solvent.

How do buffer systems help maintain pH balance in biological systems? Provide an example.

Which macromolecules are involved in genetic information storage and transfer? (Select all that apply)

- Carbohydrates
- Proteins
- DNA
- RNA

What are the characteristics of enzymes? (Select all that apply)

- They are proteins
- They increase the activation energy of reactions
- They are reusable
- They are specific to substrates

Which of the following are functions of lipids in biological systems? (Select all that apply)

- Energy storage
- Catalyzing reactions
- Cell membrane structure
- Genetic information storage

Describe the role of enzymes in biological reactions and how they affect activation energy.

Which elements are most commonly found in organic molecules? (Select all that apply)

- Hydrogen
- Helium
- Carbon
- Oxygen

Discuss the importance of carbon in forming the backbone of biological molecules.

