

Name: _____

Date: _____

Proteins Quiz – Grade 11/12 Biology

Instructions: Choose the correct option (A, B, C, or D) for each question.

Questions

1. What are the building blocks of proteins?
 - A) Nucleotides
 - B) Fatty acids
 - C) Amino acids
 - D) Monosaccharides
2. What type of bond links amino acids in a protein?
 - A) Glycosidic bond
 - B) Peptide bond
 - C) Phosphodiester bond
 - D) Hydrogen bond
3. Which level of protein structure is determined by amino acid sequence?
 - A) Primary
 - B) Secondary
 - C) Tertiary
 - D) Quaternary
4. Which of the following is NOT a function of proteins?
 - A) Enzyme catalysis
 - B) Genetic information storage
 - C) Transport
 - D) Structural support
5. Which element is found in proteins but NOT in carbohydrates or lipids?
 - A) Carbon
 - B) Hydrogen
 - C) Nitrogen
 - D) Oxygen
6. Enzymes are classified as which type of macromolecule?
 - A) Proteins
 - B) Lipids
 - C) Carbohydrates
 - D) Nucleic acids
7. What is the function of hemoglobin?
 - A) Store energy
 - B) Transport oxygen

- C) Catalyze reactions
 - D) Provide structural support
8. Which amino acid is considered essential?
- A) Alanine
 - B) Valine
 - C) Glycine
 - D) Serine
9. Denaturation affects which protein structure?
- A) Primary only
 - B) Secondary and tertiary
 - C) Quaternary only
 - D) None
10. Collagen provides structural support in:
- A) Hair and nails
 - B) Muscle contractions
 - C) DNA replication
 - D) Hormone signaling
11. Proteins are synthesized at the:
- A) Mitochondria
 - B) Ribosomes
 - C) Nucleus
 - D) Golgi apparatus
12. Which of these amino acids is polar?
- A) Leucine
 - B) Serine
 - C) Valine
 - D) Phenylalanine
13. Quaternary protein structure refers to:
- A) Single polypeptide chain
 - B) Multiple polypeptide chains
 - C) Alpha helices
 - D) Beta sheets
14. Proteins are broken down by:
- A) Lipase
 - B) Protease
 - C) Amylase
 - D) DNA polymerase
15. Which of the following is a fibrous protein?
- A) Hemoglobin
 - B) Keratin

- C) Insulin
 - D) Myoglobin
16. Which amino acid contains sulfur?
- A) Cysteine
 - B) Alanine
 - C) Lysine
 - D) Glutamine
17. Proteins that assist in folding other proteins are called:
- A) Chaperones
 - B) Enzymes
 - C) Hormones
 - D) Antibodies
18. Which structure involves hydrogen bonding between amino acids?
- A) Primary
 - B) Secondary
 - C) Tertiary
 - D) Quaternary
19. The shape of a protein determines its:
- A) Function
 - B) Molecular weight
 - C) Color
 - D) Temperature
20. A change in the amino acid sequence is called a:
- A) Mutation
 - B) Denaturation
 - C) Dehydration synthesis
 - D) Hydrolysis