

Chapter – 9 | Biomolecules**QUIZ
PART-04**

1. The bond between two amino acids is called —

- A. Glycosidic bond
- B. Peptide bond
- C. Hydrogen bond only
- D. Phosphodiester bond (B)

Explanation : During protein formation, $-\text{COOH}$ of one amino acid joins $-\text{NH}_2$ of another by a peptide bond.

2. Primary structure of protein shows —

- A. Number, type and arrangement of amino acids
- B. Only folded globular shape
- C. Only four subunits
- D. Only DNA sequence (A)

Explanation : Primary structure refers to the linear sequence of amino acids.

3. The first amino acid end of a linear protein is called —

- A. C-end
- B. N-end
- C. P-end
- D. Sugar end (B)

Explanation : The first amino acid has a nitrogen end, called N-end.

4. The stability of secondary protein structure mainly depends on —

- A. Hydrogen bonds
- B. Glycosidic bonds
- C. Cellulose fibres
- D. Phosphate groups only (A)

Explanation : Hydrogen bonds stabilize coils and folds of secondary structure.

5. The three-dimensional globular form of protein is called —

- A. Primary structure
- B. Secondary structure
- C. Tertiary structure
- D. Linear structure (C)

Explanation : Tertiary structure is formed when a polypeptide chain folds into a compact 3D form.

6. Adult human haemoglobin has —

- A. Two alpha and two beta subunits
- B. Four alpha subunits only
- C. One alpha and one beta subunit
- D. Only one polypeptide chain (A)

Explanation : Adult haemoglobin has 2 α and 2 β subunits, showing quaternary structure.

7. Nucleic acids are polymers of —

- A. Amino acids
- B. Nucleotides
- C. Fatty acids
- D. Monosaccharides only (B)

Explanation : Nucleic acids such as DNA and RNA are formed by polymerisation of nucleotides.

8. A nucleotide contains —

- A. Nitrogenous base, sugar and phosphate
- B. Amino acid, peptide and protein
- C. Glycerol and three fatty acids
- D. Cellulose and starch (A)

Explanation : Each nucleotide has a heterocyclic nitrogenous base, pentose sugar and phosphate.

9. Adenine and guanine are —

- A. Pyrimidines
- B. Purines
- C. Lipids
- D. Amino acids (B)

Explanation : Adenine and guanine are purine nitrogenous bases.

10. DNA contains which sugar?

- A. Ribose
- B. Deoxyribose
- C. Fructose
- D. Glucose (B)

Explanation : DNA contains deoxyribose sugar, while RNA contains ribose sugar.