

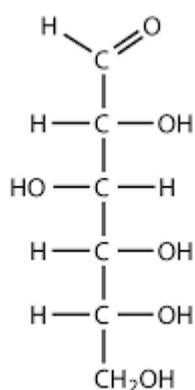
**Test Paper Class-12 | Chapter Biomolecules | Marks 25 | Time- 1.5 h**

1. ____ are joined together by phosphodiester linkage between 5' and 3' carbon atoms of the pentose sugars.

- a. Nucleosides
- b. Nucleic acids
- c. Proteins
- d. Nucleotides

(1)

2. The following molecule is called as



- a. carbohydrate
- b. Vitamin
- c. Protein
- d. Lipid

(1)

3. One or more of the following vitamins is insoluble in water

- a. all of these
- b. vitamin D
- c. vitamin K
- d. Vitamin E

(1)

4. Night blindness is caused by the deficiency of

- a. Vitamin D
- b. Vitamin B
- c. Vitamin C
- d. Vitamin A

(1)



5. Oxime is formed by treating glucose with
- Water
 - nitric acid
 - bromine water
 - hydroxylamine (1)
6. Name the forces responsible for secondary and tertiary structure. (1)
7. Write name of linkage joining two amino acids. (1)
8. Deficiency of which vitamin causes scurvy? (1)
9. Define anomers? (2)
10. What type of bonding helps in stabilizing the α -helix structure of proteins? (1)
11. Distinguish between α -glucose and β -glucose. (1)
12. Define the terms as related to proteins: (3)
- Peptide linkage
 - Primary structure
 - Denaturation
13. What are nucleotides? Name two classes of nitrogen containing bases found amongst nucleotides. (2)
14. What are the common types of secondary structure of proteins? (1)
- 15 List four main functions of carbohydrate in organism. (2)

Assertion And Reasoning

Directions: These questions consist of two statements, each printed as Assertion and Reason. While answering these questions, you are required to choose any one of the following four responses.

- If both Assertion and Reason are correct and the Reason is a correct explanation of the Assertion.
- If both Assertion and Reason are correct but Reason is not a correct explanation of the Assertion.
- If the Assertion is correct but Reason is incorrect.
- If both the Assertion and Reason are incorrect.



- 1 Assertion [A]: Proteins are very important biomolecules in a living organism. **1**
Reason [R]: Proteins make up the enzymes responsible for almost all the chemical reactions in an organism.
- 2 Assertion: D (+) – Glucose is dextrorotatory in nature. **1**
Reason: D represents its dextrorotatory nature.
- 3 Assertion: Vitamin D can be stored in our body. **1**
Reason: Vitamin D is a fat-soluble vitamin.
- 4 Assertion: All naturally occurring amino acids except glycine are optically active. **1**
Reason: Most naturally occurring amino acids have L-configuration.

