

SUBJECT : CHEMISTRY
CLASS : XII
WORKSHEET : II

CHAPTER – BIOMOLECULES

1. Explain why vitamin C can not be stored in the body?
2. What products would be formed when a nucleotide from DNA containing thymine is hydrolyzed?
3. What are reducing sugars?
4. Classify the following into monosaccharides and disaccharides: ribose, 2-deoxyribose, maltose, galactose, fructose and lactose.
5. What products are expected when lactose is hydrolyzed?
6. How do you explain the absence of aldehyde group in pentaacetate of glucose?
7. What do you understand by the glycosidic linkage?
8. What is glycogen? How is it different from starch?
9. What are the hydrolysis products of (a) sucrose (b) lactose
10. What is the basic structural difference between starch and cellulose?
11. What happens when D-glucose is treated with the following reagents?
(i) HI (ii) HNO₃.
12. Enumerate the reactions of D-glucose which cannot be explained by its open chain structure.
13. What are essential and non-essential amino acids? Give two examples of each type.
14. Define the following related to proteins.
 - a) Peptide bond,
 - b) Primary structure
 - c) Denaturation
15. What type of bonding helps in stabilizing the α helix structure of proteins?
16. Differentiate between globular and fibrous proteins.
17. How do you explain the amphoteric nature of amino acids?
18. What is the effect of denaturation on the structure of proteins?
19. How are vitamins classified? Name the vitamin responsible for coagulation of blood?

20. What is the difference between a nucleoside and a nucleotide?
21. What are nucleic acids? Mention their two important functions.
22. Write the important structural and functional differences between DNA and RNA.
23. What are different types of RNA formed in the cell?
24. Which polysaccharide is stored in the liver of animals?
25. What are the constituents of starch?
26. What are polysaccharides? Give one example.
27. What is difference between amylase and amylopectin?
28. What are zwitter ions?
29. What are anomers? Give one example.
30. Name the two components of starch. How do they differ from each other structurally?
31. How do you explain the presence of an aldehydic group in a glucose molecule?
32. What are the following substances?
 - (a) Invert sugar
 - (b) Polypeptides