

[MCQ – 2, 2 M -1, LA(2 + 2 + 1 OR 3 + 2]**I. ONE MARK QUESTIONS:**

1. Which of the following is a non-reducing sugar? Glucose, Fructose, Sucrose, Maltose.
2. Name the organic compound formed when glucose reacts with Tollen's reagent?
3. Glucose on action with Br₂ water gives gluconic acid. What does this reaction indicate about the structure of glucose?
4. What is the action of bromine water on glucose?
5. What is the use of cellulose?
6. Name the reagent used to distinguish between aldoses and ketoses?
7. What type of linkage is responsible for the formation of primary structure of proteins?
8. What is the monomer unit of nucleic acids?
9. Name the storage polysaccharides present in plants.
10. Name the polysaccharides stored in the muscles and liver of animals? **OR** Name the storage polysaccharide in animals.
11. Give an example of denatured protein.
12. Name a polypeptide hormone which maintains glucose level in blood.
13. What is poly peptide?
14. Mention the number of peptide bonds in a pentapeptide?
15. What are glycosides?
16. What is a glycosidic linkage?
17. Give an example for non-reducing sugar.
18. How many naturally occurring amino acids are present?
19. What are enzymes?
20. Name the protein present in hair / nails?
21. Give the general formula/ structure of a dipeptide.
22. Give an example of an aliphatic α -amino acid.
23. Give an example of an aromatic α -amino acid.
24. Give an example of a heterocyclic α -amino acid.
25. Give an example of an acidic α -amino acid.
26. Give an example of a basic α -amino acid.
27. Give an example of a neutral α -amino acid.
28. Give an example for sulphur containing α -amino acid.
29. Name the class of amino acids which are synthesised in the human body.
30. Give the zwitter ion structure of Alanine.

31. Name the disaccharide present in milk.
32. Give an example for reducing sugar.
33. Give an example for non-reducing sugar.
34. Give the chemical name of grape sugar.
35. Name a nitrogen base present both in DNA and in RNA.
36. Name a nitrogen base present in DNA but not in RNA.
37. Name a nitrogen base present in RNA but not in BNA.
38. Name a hormone which contains iodine.
39. What is the function of hormone insulin?
40. Name a hormone which regulates the blood sugar level in the body.
41. Name a vitamin that is stored in liver and adipose tissues.
42. Name the naturally occurring amino acid that is not optically active. **OR** Which naturally occurring α -amino acid is optically in active?
43. What are monomer units of nucleic acids?
44. What is nucleoside? **OR** Define the term nucleoside.
45. What is a nucleotide? **OR** Define the term nucleoside.
46. What is isoelectric point of amino acids?
47. Give an example for fat soluble vitamin.
48. During denaturation of proteins what type/ which degree structure of proteins are lost?
49. What type/ which degree of structure of proteins remains intact even after denaturation?
50. Name the building blocks of proteins.
51. What is meant by primary structure of proteins?
52. What type of proteins contain quaternary structure ?
53. Which biomolecules acts as catalyst?
54. Enzymes belong to which category of proteins?
55. Name the vitamin responsible for coagulation of blood. **OR** Name the vitamin whose deficiency is responsible for poor coagulation of blood.
56. Deficiency of which vitamin causes rickets?
57. Deficiency of which vitamin causes night blindness?
58. Deficiency of which vitamin causes scurvy?
59. What is the chemical name of Vitamin-A?
60. What is the chemical name of Vitamin-B₁₂?
61. What is the chemical name of Vitamin-C?
62. What is the chemical name of Vitamin-D?
63. Name the pyrimidine bases present in DNA?

64. Name the purine bases present in DNA?
65. Name the pyrimidine bases present in RNA?
66. Name the purine bases present in DNA?

II. TWO MARK QUESTIONS:

1. What are monosaccharides? Give an example.
2. What are disaccharides? Give an example.
3. What are oligosaccharides? Give an example.
4. What are polysaccharides? Give an example.
5. What is reducing sugar? Give an example.
6. What is non-reducing sugar? Give an example.
7. Write any two functions of carbohydrates in plants.
8. Write the Haworth's structure of α -D-glucose.
9. Write the Haworth's structure of β -D-glucose.
10. Write the Haworth's structure of sucrose.
11. Write the Haworth's structure of maltose.
12. What is a zwitter ion? Give its structure.
13. How is dipeptide formed? Give an example.
14. What are fibrous proteins? Give an example.
15. What are globular proteins? Give an example.
16. Give any two differences between fibrous protein and globular protein.
17. Give an example each for i) acidic α -amino acid ii) fibrous protein.
18. What is a peptide bond? How many peptide bonds are present in a penta peptide?
19. Name i) the sugar moiety present in DNA ii) Nitrogenous base present only in DNA, but not in RNA.
20. Mention any two importances of nucleic acids.
21. What is denaturation of proteins? Give example.
22. What is the effect of denaturation on the structure of proteins?
23. What are essential amino acids? Give example.
24. What are non-essential amino acids? Give example.
25. Give a reaction to show that a molecule of glucose contains a straight chain of six carbon atoms.
26. Give a reaction to show that a molecule of glucose has five -OH groups.
27. Give a reaction to show that glucose contains an aldehydic group.
28. Give a reaction to show that glucose contains a carbonyl group.
29. Give a reaction to show that glucose contains a 1° -OH group.

30. How is glucose prepared from starch?
31. Give any two functions of DNA.
32. Give any two functions of RNA.

III. THREE MARK QUESTIONS:

1. Mention two differences in the structure of starch and cellulose. Write the Haworth's structure of the monomer in cellulose.
2. What is reducing sugars? Is sucrose a reducing sugar? Give reason.
3. Give any three differences between DNA and RNA.
4. What are Nucleic acids? Mention any two important functions of nucleic acids.
5. Mention the ill effects caused due to deficiency of Vitamin A, B₁₂, D, and C.
6. What are vitamins? How are they classified?
7. Write a note on structure of proteins.
8. Write a note on secondary structure of proteins.
9. Give the reactions of glucose with the following reagents: i) HI ii) Bromine water iii) HNO₃.
10. Mention the types of RNA.
