

**ST. JOSEPH'S COLLEGE OF ARTS & SCIENCE, (AUTONOMOUS)
CUDDALORE-1.**

**CLASS : I- M.Sc., BIOCHEMISTRY-(SHIFT-I)
SUBJECT : BIO-ORGANIC CHEMISTRY**

SUB CODE: PBC701S

PART A

I Choose the best answer

- 1) Maltosazone crystals look like
a) Bundle of hay b) sunflower shape c) Cotton ball shape d) diamond Shape
- 2) Fructose is a
a) Ketose b) aldose C) pentose D) none
- 3) Which one is not monosaccharide?
a) Glucose b) maltose c) fructose d) mannose
- 4) Sucrose is a
a) Reducing sugar b) non reducing sugar C) invert d) Both B& C
- 5) The equal concentration of D&L isomer is called
a) Epimer b) isomers c) anomers d) Racemic mixture
6. Which is storage polysaccharide?
a) Pectin b) inulin c) cellobiose d) chitin
7. Which is responsible for the stiffness of cloth?
a) Starch b) dextrin c) cellulose d) dextran
8. The number of amino acids per turn in collagen is
a) 2.5 b) 3.5 c) 3 d) 4.5
9. Which is a covalent bond?
a) Peptide bond b) hydrogen bond c) hydrophobic bond d) ionic bond
10. Which method is used to sequence the amino acids in a polypeptide?
a) Sanger b) Edman c) Merrifield d) all the above
11. The backbone of nucleic acid structure is constructed by
a) peptide bond b) glycosidic bond c) phospho diester bridges d) none
12. The major form of lipids are
a) triglycerides b) cholesterol c) cholesterol esters d) all the above
13. DNA foot printing technique is used to detect

- a) DNA-DNA interaction
- b) Protein-Protein interaction
- c) DNA-Protein interaction
- d) Carbo hydrate-Protein interaction

II SAY TRUE OR FALSE

- 1) Starch is a disaccharide
- 2) Inulin is made up of fructose
- 3) Heparin is an anticoagulant
- 4) Glycogen is also called as animal starch
- 5) Chitin is present in exoskeleton of crab
- 6) Chargaff's rule states $(A+G)=(T=C)$
- 7) HDL is good for health.

III ANSWER IN ONE SENTENCE

- 1) Define Carbohydrate
- 2) Define structural polysaccharides
- 3) Write the functions of lactose
- 4) Mutarotation
- 5) Epimer
- 6. Define Zwitter ion
- 7. What is allostery?
- 8. Define mutarotation
- 9. Define glycosidic linkage
- 10. What are epimers?
- 11. Explain PUFA with example?.
- 12. Define nucleotide.
- 13. Define Glycolipid.

PART B

5 MARKS QUESTIONS

- 1) Write notes on cellulose and its functions
- 2) Difference between reducing and non-reducing sugar
- 3) Describe the structural configuration of glucose by Haworth Projection formula
- 4) Write a short on sucrose and its functions
- 5) Explain how the amino acid sequence of a protein is determined

- 6) Write a note on Ramachandran plot
- 7) Classify carbohydrates with examples
- 8) Explain bacterial cell wall polysaccharides
- 9) Explain the structure and function of cholesterol
- 10) Write the structure, and function of phospholipids.
- 11) Explain the types of RNA in detail
- 12) Explain the properties of DNA in detail
13. Classify lipids with examples.
14. Write a note on classification of proteins.

PART –C

10 MARKS QUESTIONS

- 1) How will you Classify carbohydrates? Give suitable examples
- 2) Write a detailed note on hetero polysaccharides
- 3) Write a detailed note on storage polysaccharides.
- 4) Explain the secondary structure of proteins?
- 5) Explain glycosaminoglycans in detail
- 6) Write a note on polysaccharides with example
- 7) Give an account on lipoproteins.
- 8) Describe the Watson and crick model of DNA.
- 9) Give an account on foot printing technique.
- 10) Explain the DNA motif in detail

SUB.HANDLED:

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