

B.Sc. Sem.-2 Examination

CC-3 - Paper-103

Bio-Chemistry

May-2025

Time : 2-30 Hours]

[Max. Marks : 70

INSTRUCTIONS:

- Q.1 A. Write structures of 1. Sucrose 2. Lactose 3. Raffinose 4. Cellobiose 4
- B. Write a note on: Occurrence, structure and functions of Hylauronic acids 7
- c. Write importance of Heparin and chitin 3
- OR
- Q.1 A. Give two rich sources & structure of 1. Starch 2. Pectin 4
- B. Write a brief note on : Glycoprotein and proteoglycan 7
- c. Write three uses of sialic acid 3
- Q.2 A. Discuss on Denaturation and renaturation of protein 5
- B. List out different steps in protein sequencing and discuss the role of Sanger's reagent in protein sequencing 7
- c. Explain Salting in and Salting out of protein 2
- OR
- Q.2 A. Write difference between Globular and Fibrous protein 7
- B. Write a note on Quaternary structure of protein 5
- c. Give one example of Fibrous protein and occurrences 2
- Q.3 A. Discuss the colour reaction of Cholesterol 7
- B. Write a note on Cerebrosides 7
- OR
- Q.3 A. Write a note on Lecithin 7
- B. Give the structure of (1) Cephalin (2) Phosphatidyl serine (3) Phosphatidyl inositol 6
- C. Write occurrences of Gangliosides 1

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- Q.4 A. Write 14 points on Watson and Crick model of DNA 7
B. Name three types of RNA and explain t- RNA in detail 7

OR

- Q.4 A. Give the structure of : (1) Uridine (2) adenylic acid (3) Cytosine 6
B. Write a note on functions naturally occurring Nuclotides 8

Q.5 ANSWER THE FOLLOWING [ANY SEVEN] 14

1. Write one function of glycogen and teichoic acid each
 2. Write one properties of Agar-Agar
 3. Give two examples of Amino sugars
 4. What is Heteropolysaccharides
 5. Define : Isoelectric pH
 6. Name the amino acid which gives positive Millions test
 7. Define the term : Protein Denaturation
 8. Draw a peptide bond
 9. Give a role of phospholipids
 10. What is composition of Gangliosides
 11. Write importance of Prostaglandin
 12. Draw structure of Plasmalogens
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