

Roll No.....

Total No. of Questions : 13]

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J-3034[S-34]

[2037]

**B.Sc. (BI) (Semester - 2nd)
BIOCHEMISTRY (BI - 204)**

Time : 03 Hours

Maximum Marks : 75

Instruction to Candidates:

- 1) Section-A is **compulsory**.
- 2) Attempt any **Nine** questions from section-B.

Section - A

Q1)

(15 × 2 = 30)

- a) What is mutarotation?
- b) Give the names of important mucopolysaccharides and their functions.
- c) How osazones are produced?
- d) Differentiate between cerebroside and gangliosides.
- e) Define Iodine number. What is its significance?
- f) What are zwitterions?
- g) How peptide bond is produced?
- h) Give features of Alpha Helix.
- i) What are nucleosides?
- j) Give structural features of t-RNA.
- k) What is Chargaff's rule?
- l) What is enzyme specificity?
- m) Outline the role of co-factors.
- n) What are isoenzymes?
- o) Name and draw the steroid nucleus.

P.T.O.

Section - B

(9 × 5 = 45)

- Q2)** What are polysaccharides? Describe the structure of homopolysaccharides.
- Q3)** Discuss structural configuration of monosaccharides with special reference to glucose.
- Q4)** Discuss the structure and function of phospholipids.
- Q5)** Describe the classification of fatty acids and properties of various types of fatty acids.
- Q6)** Describe the classification of amino acids giving their structures.
- Q7)** What are the different levels of protein structures? Discuss.
- Q8)** Explain the features of DNA double Helix.
- Q9)** Discuss the structure and function of different nucleotides.
- Q10)** What are enzymes? Describe their classification and nomenclature.
- Q11)** Explain the mechanism of enzyme action.
- Q12)** What are fibrous proteins? Discuss the biological function of fibrous proteins.
- Q13)** Describe the structure and function of different types of RNA's.

