

Subject : Biochemistry

Paper – I : Chemistry of Biomolecules

Time : 3 Hours

Max. Marks: 80

PART – A (5 x 4 = 20 Marks)

(Short Answer Type)

Note : Answer any FIVE of the following questions.

- 1 Give an account on types of buffers.
- ~~2~~ Write a note on stereochemistry of amino acids.
- ~~3~~ What is mutarotation?
- ~~4~~ Discuss about structural polysaccharides.
- 5 What are prostaglandins?
- ~~6~~ Give an account on properties of lipids.
- 7 Write a note on general properties of proteins.
- ~~8~~ Give an account of titration curve of glycine.

PART – B (4 x 15 = 60 Marks)

(Essay Answer Type)

Note: Attempt ALL the questions.

- 9 (a) Write a note on scope of biochemistry.

OR

- (b) Explain the significance of Henderson-Hasselbalch equation with suitable examples.

- 10 (a) Discuss about the reactions of monosaccharides with suitable examples.

OR

- (b) Give an account on :

- (i) amino sugars
- (ii) bacterial cell wall polysaccharides

- 11 (a) Write a note on structure and organization of biomembranes.

OR

- (b) Discuss about the classification of lipids.

- 12 (a) With suitable examples describe the structural organization of proteins.

OR

- (b) Give an account on :

- (i) classification of amino acids
- (ii) naturally occurring peptides
