

325203

May 2023
B.Sc. (LS) II Semester
Chemistry of Biomolecules (BLS-203)

Time : 3 Hours]

[Max. Marks : 75

Instructions :

1. *It is compulsory to answer all the question (1.5 marks each) of Part-A in short.*
2. *Answer any four questions from Part-B in detail.*
3. *Different sub parts of a questions are to be attempted adjacent to each other.*

PART-A

1. Write short notes on the following :
 - (a) Competitive enzyme inhibition. (1.5)
 - (b) Zwitterion structure of amino acids. (1.5)
 - (c) Saponification value. (1.5)
 - (d) Omega fatty acids. (1.5)
 - (e) Catabolism of carbohydrates. (1.5)
 - (f) Mutarotation. (1.5)

- (g) Genetic code. (1.5)
- (h) Epimers. (1.5)
- (i) Nucleotide. (1.5)
- (j) Steroids. (1.5)

PART-B

- 2. (a) Explain the classification system of monosaccharides: (10)
- (b) Discuss the structure and significance of polysaccharides starch and cellulose. (5)
- 3. (a) What are the different types of enzyme inhibitors and their phenomenon of inhibition? (5)
- (b) Discuss the method of determination of N-terminal sequence of amino acids. (10)
- 4. What are the different components of nucleic acids? Explain the double helical model of DNA proposed by Watson and Crick. (15)
- 5. (a) Explain the classification system of lipids and discuss their significance. (5)
- (b) What is RNA and explain the importance of different types of RNA found in a cell? (10)

- 6. (a) Explain the Glycolysis-catabolic pathway of carbohydrates in detail. (10)
- (b) What do you mean by metabolism? (5)

7. Write brief notes on the following :

- (a) Disaccharides.
 - (b) Classification of amino acids. (15)
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