



B.Sc. III Semester Degree Examination, March/April - 2023

BIOTECHNOLOGY

Biomolecules

(NEP)

Time : 2 Hours

Maximum Marks : 60

Note : (i) Answer **all** the sections.

(ii) Draw diagrams wherever necessary.

SECTION - A

1. Answer the following sub-questions. **10x1=10**
- (a) What is Anabolism ?
 - (b) Expand NADP and ATP.
 - (c) Define Zwitter ion.
 - (d) What do you mean by deamination ?
 - (e) What are Sphingolipids ?
 - (f) What is Apoenzyme ?
 - (g) What is another name of Vitamin A ?
 - (h) What is endocrine gland ?
 - (i) Define Stationary phase.
 - (j) In which field gel electrophoresis used ?

SECTION - B

Answer **any four** of the following questions.

4x5=20

- 2. Briefly explain the properties of Carbohydrates.
- 3. Explain the structure of amino acids with aliphatic side chains.
- 4. Give an account of properties of Lipids.
- 5. Derive the MM equation.
- 6. Describe the Sources, Symptoms and Deficiency diseases of Vitamin A.
- 7. Explain the principle and application of TLC.



P.T.O.

SECTION - C

Answer **any three** of the following questions.

3x10=30

8. What is Glycolysis ? Explain the steps involved in the Glycolysis with the Schematic representation.
9. Describe the steps involved in urea cycle.
10. Write an explanatory note on Biosynthesis of Cholesterol.
11. Explain the classification of hormones based on Chemical Nature and mechanism of action.
12. Write a detailed note on principle, procedure of SDS - PAGE.

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