

A
(20622)
M.Sc.-II Sem.

(Printed Pages 4)
Roll No.

NP-3334

**M.Sc. (Biotechnology) Examination,
June-2022**

FUNDAMENTAL OF BIOCHEMISTRY

[H-201 (M.Sc.-Biotech.)]

Time : Three Hours] [Maximum Marks : 50

Note : Attempt questions from **all** Sections
as per instructions.

Section-A

(Very Short Answer Type Questions)

Note : Attempt all **five** questions. $2 \times 5 = 10$

1. What is allosteric enzyme?

P.T.O.

2. Differentiate between essential and non-essential amino acids. Give examples.
3. What are functions of proteins?
4. Define Chargoff's rule.
5. What are secondary metabolites?

Section-B

(Short Answer Type Questions)

Note : Attempt any **two** questions. $5 \times 2 = 10$

6. Explain the effect of heat on α , β , γ and δ -amino acids.
7. Describe the components of nucleic acids.
8. Give characteristics of polypeptide bonds.
What is iso-electric point of amino acid?

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Section-C

(Long Answer Type Questions)

Note : Attempt any **three** questions.

10×3=30

12. Describe the steps involved in Glycolysis.
13. Explain the biosynthesis of cholesterol.

9. Derive Michaelis Menten Equation and discuss its significance. Draw Lineweaver Burk plot.

10. Explain reversible and irreversible inhibition in enzymes.

11. Explain Fischer's Lock and Key model and Koshland's induced fit hypothesis and their limitations in enzyme catalysed reactions.