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(Printed Pages 3)

(20426) Roll No.

B.Sc. (Bio-Tech.)-I Year

3455

B.Sc. (Bio-Technology)

Examination, April-2026

Bio-Chemistry

(B-101)

(B.Sc. Bio-Tech.)

Time : Three Hours] *[Maximum Marks : 50*

Note : Attempt any **five** questions. Each questions carries **10** marks.

1. Define carbohydrate? Write its classification and properties. 10

2. Write notes on (any **two**) : 5×2=10

   (a) Vitamen

   (b) Essential amino acids

   (c) Z-DNA

   (d) Ribozyme

P.T.O.

3. Write notes on (any **two**) : 5×2=10

(a) Allosteric enzyme

(b) Vitamin-C

(c) Tertiary structure of protein

(d) Tm

4. Write notes on (any **one**) : 1×10=10

(a) Gluconeogenesis

(b) Regulation of enzyme activity

5. Differentiate between (any **two**) :

5×2=10

(a) Globular and fibrous proteins

(b) Water soluble vitamin and fat soluble vitamin

(c) Nucleotide and Nucleoside

6. Describe the steps and regulation involved in pyrimidines bio-synthesis.

1×10=10

7. Differentiate between : 5×2=10

(a) B-DNA and Z-DNA

(b) Competitive inhibition and Non-competitive inhibition

8. Write a note on TCA cycle. How it acts as nodal point for many other metabolic pathways? 1×10=10

9. Write notes on : 5×2=10

(a) Glyoxylate cycle

(b) Supercoiled DNA

10. Write notes on : 5×2=10

(a) Scurvy

(b) uses of enzymes in Industry