

1228

4

(c) Lineweaver Burk plot

(d) Types of RNA

(1000)

2 AUG 2023

[This question paper contains 4 printed pages.]

Your Roll No....



Sr. No. of Question Paper : 1228

Unique Paper Code : 2232011202

Name of the Paper : Fundamentals of
Biomolecules

Type of the Paper : DSC

Name of the Course : B.Sc.(Hons) Zoology

Semester : II

Duration : 2 Hours

Maximum Marks : 60

Instructions for Candidates

1. Write your Roll No. on the top immediately on receipt of this question paper.
2. Attempt any four question including Question No. 1 which is compulsory.
3. Draw well-labelled diagrams wherever necessary.

1. (i) Define the following terms (**any four**) (4)

(a) Muta-rotation

P.T.O.

- (b) Eicosanoids
- (c) Zwitterion
- (d) Nucleotides
- (e) Isozyme
- (ii) Differentiate between (any two) (4)
- (a) B DNA and Z DNA
- (b) Aldose and Ketose
- (c) Reducing and Non—reducing sugar
- (iii) Draw the structure of (3)
- (a) Palmitic acid
- (b) Phenylalanine
- (c) Galactose
- (iv) Explain why (2×2=4)
- (a) Saturated fatty acids have high melting point?
- (b) Absorbance at 260 nm increases when we denature DNA?

2. (a) Describe the levels of organization in proteins. (10)
- (b) Add a note on general properties of amino acids. (5)
3. (a) Explain the structure of B-form of DNA with suitable diagrams. (8)
- (b) Add a note on Cot curves and their significance. (7)
4. (a) Elucidate the Michaelis-Menten equation for one enzyme one substrate reaction. (12)
- (b) Briefly describe the irreversible enzyme inhibitions. (3)
5. (a) Give detailed account of structure and function of polysaccharides. (8)
- (b) Describe the structure of Phospholipids and Glycolipids with suitable diagrams. (7)
6. Write short notes on (any three) (5×3=15)
- (a) Steroids
- (b) Glycoconjugates