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DCBT301

Reg. No.

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III Semester B.Sc. Degree Examination, March/April - 2024

BIOTECHNOLOGY

Biomolecules

(NEP Scheme (F+R) 2021-2022 Onwards)

Paper : III



Time : 2½ Hours

Maximum Marks : 60

Instructions to Candidates:

1. All parts are compulsory.
2. Draw neat labelled diagrams.

PART - A**I.** Answer any **Four** of the following.

(4×2=8)

1. What is isomerism?
2. Zwitter ions.
3. Saponification value.
4. Pyrimidines.
5. Peptide bond.
6. SDS page.

PART - B**II.** Answer any **Four** of the following.

(4×5=20)

7. Define oligosaccharides. Brief on sugar derivatives of oligosaccharides. (2+3)
8. Explain denaturation and renaturation of proteins. (2+3)
9. What are enzymes? List the factors influencing enzyme activity. (2+3)
10. Explain the structure and functions of Estradiol. (2+3)
11. Write the principle and procedure for PAGE. (2+3)
12. Describe vitamins. Add a note on its classification. (2+3)

[P.T.O.]

**PART - C**

III. Answer any Four of the following. (4×8=32)

13. Define carbohydrates. Give the classification of carbohydrates. (2+6)
 14. Describe structural organisation of proteins. Explain the secondary and tertiary structures of proteins. (2+3+3)
 15. Write the properties and functions of lipids. Add a note on Hydrogenation. (2+3+3)
 16. Give an account on Hormones. Comment on its chemical nature and mechanism of action. (2+3+3)
 17. What are nucleic acids? Differentiate between nucleosides and nucleotides in DNA. (2+3+3)
 18. Write the principle, procedure and applications of U.V Spectroscopy. (2+3+3)
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