

(i) Printed Pages : 2

Roll No.

(ii) Questions : 9

Sub. Code :

1	3	8	4	1
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Exam. Code :

5	0	5	3
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**B.Sc. (Hons.) (Bio-Technology) FYUP 3rd Semester
(2125)**

MOLECULES OF LIFE

Paper : BTED301

Time Allowed : Three Hours]

[Maximum Marks : 68

Note :—Attempt five questions in all. Q. 1 is compulsory.
Select one question from each unit.

1. (a) What is a buffer?
- (b) Define a glycoprotein.
- (c) Define saponification value of fat.
- (d) What is a peptide bond?
- (e) What is rancidity of fat?
- (f) What is a nucleotide? 2×6

UNIT—I

2. (a) Discuss the physicochemical properties of water. 7
- (b) Discuss the structure of liquid water. 7
3. (a) Discuss stereoisomerism in monosaccharides. 7
- (b) Discuss the structure and function of acid mucopolysaccharides. 7

UNIT—II

4. (a) Discuss the structure of triacylglycerol. 7
(b) Discuss the structural properties of sphingomyelin. 7
5. Discuss structure, classification, and functions of phospholipids. 14

UNIT—III

6. (a) Discuss structural components of an amino acid. 5
(b) Discuss the structure of alpha helix in proteins. 9
7. Discuss forces stabilizing the tertiary structure of proteins. 14

UNIT—IV

8. (a) Discuss structure of purines. 7
(b) Discuss physical features of nucleic acids. 7
9. Discuss structural features of different types of DNA. 14