

[SPDBT-102]
M.Sc. DEGREE EXAMINATION

Biotechnology
I YEAR

BIOMOLECULES

(Effective from the admitted batch 2009-10)

Time: 3 Hours

Max.Marks: 70

Instructions: All parts of the unit must be answered in one place only.
Figures in the right hand margin indicate marks allotted.

1. Answer any **Four** of the following: (4x5 = 20)
- a) Sulphur containing amino acids
 - b) Tertiary structure of proteins
 - c) Homopoly saccharides
 - d) Complex triglycerides
 - e) Pyrimidines
 - f) Ribonucleic acid (RNA)
 - g) Essential amino acids

Answer one question from each unit.
Each question carried 10 marks:

UNIT-I

2. a) Give an account of classification of proteins 10

OR

- b) Enumerate chemical properties of amino acids 10

UNIT-II

3. a) Write short notes on α -helix, β -sheets and collagen triple helix 10

OR

- b) Write a note on solid phase peptide synthesis 10

UNIT-III

4. a) What are glycosamino glycans? Give names of any three glycosamino glycans along with repeating unit 10

OR

- b) Write briefly about: reducing and non-reducing sugars and differences between amylase and amylopectin 10

UNIT-IV

5. a) How are lipids classified? Give one example each 10

OR

- b) Name the nuclear skeleton in the molecule of cholesterol. Describe colour reactions of cholesterol 10

UNIT-V

6. a) Name the nucleosides of adenine, guanine, cytosine, thymine and Uracil with Ribose 10

OR

- b) In what respect A-, B- and Z-DNAs differ? 10

[01/IY/210]