

ED-334

M.Sc. 1st Semester Examination, March-April 2021

BIOTECHNOLOGY

Paper - IV

Bio-Molecule

Time: Three Hours] [Maximum Marks: 80

[Minimum Pass Marks: 16

Note: Answer **all** questions in which Question Number 1 is compulsory. All questions carry equal marks.

- 1. Write very short answers of the following:
 - (a) pH and Buffers
 - (b) Classification of proteins
 - (c) Structure of nucleic acids
 - (d) Krebs cycle

Unit-I

2. Write in detail, principle and technique of spectroscopy with reference to UV-visible spectroscopy.

OR

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(Turn Over)

(2)

Write short notes on any **two** of the following:

- (a) Principles of Thermodynamics
- (b) Non-covalent Bonds
- (c) Principles of Chromatography

Unit-II

3. Explain urea cycle in detail.

OR

Write short notes on any **two** of the following:

- (a) Deamination and Decarboxylation of protein
- (b) Classification of amino acid
- (c) End group analysis of protein

Unit-III

4. Descrube β -oxidation of fatty acids in detail.

OR

Write short notes on any **two** of the following:

- (a) Functions of lipids
- (b) Salvage pathway of nucleic acid
- (c) Isoprenoids

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(Continued)

(3)

Unit-IV

5. Write the classification of sugar with suitable examples.

OR

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180