Roll No. : .....

Total No. of Questions : **11**] [Total No. of Printed Pages : **3**

BPG–1112

M.Sc. (Previous) Examination, 2021

BIOTECHNOLOGY

Paper - I

(Biochemistry and Enzyme Technology)

Time : 1½ Hours] [*Maximum Marks : 75*

Section–A **(Marks : 2 × 10 = 20)**

Note :– Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

Section–B **(Marks : 5 × 5 = 25)**

Note :– Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **5** marks.

Section–C **(Marks : 10 × 3 = 30)**

Note :– Answer any *three* questions out of five (Answer limit **500** words). Each question carries **10** marks.

Section–A 2 each

1. (i) Define Glycoprotein.

   (ii) What is α (Alpha) Oxidation ?

(iii) Describe Peptide Bond.

(iv) Write name of members of Aspatate family.

(v) What is Fermentation ?

(vi) Define Ramachandran Plot.

(vii) Write names of Synthetic Auxins.

(viii) What is Zymogens ?

(ix) What is Michaelis-Menton Equation ?

(x) Which hormone is called 'Stress Hormone' ?

Section–B 5 each

2. Briefly describe the Gluconeogenesis.

Or

Describe the β-oxidation of fatty acids.

3. Write on different structure of proteins.

Or

Describe Urea Cycle.

4. Write short note on Abscissic acid.

Or

Hypothalamic control of Pituitary.

5. Describe the structure of *t*-RNA.

Or

Synthesis of Purines.

6. Describe mechanism of Enzyme action.

Or

Differentiate between Isozymes and Zymogens.

Section–C 10 each

7. Describe in detail about the HMP and Glyoxylate Pathways.

8. Describe aromatic amino acids family.

9. Write an essay on properties, structure and functions of Vitamines.

10. Describe structure and properties of nuclic acids.

11. Write short notes on the following :

    (a) Paper Manufacturing

    (b) Processing of Textiles 5+5=10