

(i) Printed Pages : 2 Roll No.

(ii) Questions : 9 Sub. Code :

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B.A. /B.Sc. (General) 2nd Semester
(2054)

BIO-TECHNOLOGY

Paper : BIOT-Elect-Sem.-II-T Foundation of Biotechnology

Time Allowed : Three Hours]

[Maximum Marks : 67

Note :—Attempt **two** questions each from Section-A and Section-B. Section C is compulsory.

SECTION—A

- I. (a) Discuss the molecular basis of classification of micro organisms. 7
(b) State the differences between gram positive and gram negative bacteria. 6
- II. (a) What is an endospore ? 6
(b) Give characteristic features of viruses. 7
- III. (a) What are monosaccharides ? Discuss any 2 reactions to detect the presence of monosaccharides. 6
(b) State the differences between reducing and non-reducing sugars. 7
- IV. (a) Write a note on phosphoglycerides. 6
(b) What are fatty acids ? Write its classification. 7

SECTION—B

- V. (a) Write any 4 properties of enzymes. 7
(b) Write 3 applications of enzymes in diagnostics. 6
- VI. (a) Draw the structure of polar amino acids. 6
(b) Explain different levels of structures in proteins. 7
- VII. (a) Write the differences between SEM and TEM. 6
(b) Write any 3 applications of UV/Vis spectroscopy. 7
- VIII. (a) Explain autoradiography. 7
(b) Describe southern blotting. 6

SECTION—C

(Compulsory Question)

IX. Write short notes on :

- (a) Temperature sensitive bacteria
(b) Primary metabolites
(c) Tautomerisation
(d) ELISA
(e) Lambert Beer's law
(f) Purpose of X-ray diffraction.

6×2.5=15