

(i) Printed Pages: 2

Roll No.

(ii) Questions : 9

Sub. Code :

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Exam. Code :

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B.A./B.Sc. (General) 1st Semester
(2123)

BIO-TECHNOLOGY

Paper : BIOT-Elect-Sem-I-T Introduction to Biotechnology

Time Allowed : Three Hours] [Maximum Marks : 67

Note :—Attempt FIVE questions in all. Select TWO questions each from Section A and B. Section C is compulsory.

SECTION—A

1. (a) Discuss historical landmarks in the advent of modern Biotechnology. 7
- (b) Discuss the objectives and achievements of any one Centre for Biotechnology in India. 6
2. (a) Discuss the significant contributions of Biotechnology in Agriculture. 7
- (b) Discuss Good Laboratory Practices and their significance. 6
3. (a) Discuss the major structural differences in Eukaryotic and Prokaryotic Cells. 6
- (b) Discuss how *Mus Musculus* is a model organism. 7

4. (a) Discuss how bacteriophages are employed in Biotechnology. 6
 (b) Discuss the basic concept of recombinant DNA technology. 7

SECTION—B

5. (a) Discuss the technique and applications of Sonication. 7
 (b) Discuss principles and working of bright field microscope. 6
6. (a) Discuss the principle and equipment for TLC. 7
 (b) Discuss the procedure of Agarose gel electrophoresis for DNA. 6
7. (a) Discuss two methods of raising transgenic plants. 6
 (b) Discuss the process and concerns of human cloning. 7
8. (a) Describe different types of Biowarfare. 6
 (b) Discuss the importance of patents in Biotechnology. 7

SECTION—C

9. (a) Define Green Biotechnology. 2
 (b) What is Bioterrorism ? 2
 (c) What is the role of restriction enzymes ? 2
 (d) Define relative mobility in Electrophoresis. 2
 (e) What is a GMO ? 2
 (f) What is a Trademark ? 2
 (g) What is the role of an Ultracentrifuge ? 3