

(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

(2122)

BIO-TECHNOLOGY

Paper—BIOT-Elect-Sem.-I-T Introduction to Biotechnology

Time Allowed : Three Hours]

[Maximum Marks : 67

Note :— Attempt five questions in all. Attempt two questions each from Section A and Section B. Section C is compulsory.

SECTION—A

1. (a) Discuss how Biotechnology has improved agricultural practices. 7
- (b) Discuss important events in the advent of modern day Biotechnology. 6
2. (a) Give an outline of Good Laboratory practices. 6
- (b) Discuss different Biosafety levels in a Biotechnology lab. 7
3. (a) Discuss the role of *Arabidopsis thaliana* as a model organism for plants. 7
- (b) Discuss the structural features of a prokaryotic cell. 6

4. (a) Discuss the role of restriction endonucleases in DNA modification. 7
- (b) Discuss how viruses are useful in Biotechnological research. 6

SECTION—B

5. Discuss the principle and types of centrifugation with applications in Biological research. 13
6. (a) Discuss principle and working of phase contrast microscope. 8
- (b) Discuss the basis of gel permeation chromatography. 5
7. Discuss different parts of computer alongwith their functions. 13
8. (a) Discuss different statistical data types. 7
- (b) Discuss Baye's theorm and its applications. 6

SECTION—C

9. (a) Define Biotechnology. 2
- (b) What is Biosafety ? 2
- (c) What is a Cosmid ? 2
- (d) What is principle of sonication ? 3
- (e) What is principle of TLC ? 3
- (f) What is Probability ? 3