

1128

**B.A./B.Sc. (General) First Semester
Bio-Technology
BIOT-Elect-Sem-I-T: Introduction to Biotechnology**

Time allowed: 3 Hours

Max. Marks: 67

NOTE: Attempt five questions in all, including Question No. IX (Unit-III) which is compulsory and selecting two questions each from Unit I - II.

x-x-x

UNIT -I

- I. a) Discuss the role of *Eschenchia coli* as model bacterium in Biotechnology,
b) Discuss the features of *Drosophila melanogaster* that make it an appropriate model organism. (7,6)
- II. a) Explain the applications of white Biotechnology.
b) Discuss the status of Biotechnology in developed countries. (6,7)
- III. a) Discuss the role of Biotechnology in medicine.
b) Explain objectives of any one centre for Biotechnology in India. (7,6)
- IV. a) Discuss the applications of viruses in Biotechnology
b) Describe the role of for ligases in recombinant DNA technology. (7,6)

UNIT - II

- V. a) Discuss the role of sonication technique in Biotechnology.
b) Describe principle and working of phase contrast microscope. (7,6)
- VI. a) Discuss the technique of agarose gel electrophoresis.
b) Describe principle of ion exchange chromatography. (7,6)
- VII. a) Discuss the different types of input devices in computer.
b) Explain RAM and its role in computers. (7,6)
- VIII. a) Describe multiplication theorem and its application.
b) Discuss different types of data. (7,6)

P.T.O.

(2)

UNIT - III

IX. Attempt the following:-

- a) Define model organism.
- b) Define green Biotechnology.
- c) What is GLP?
- d) Define biosafety.
- e) What is median?
- f) What is ROM? (6x2)
- g) What is the principle of bright field microscopy? (3)

x-x-x