

1059

B.Sc. (Hons.) Biotechnology

Second Semester

BIOT- Sem-II-III-T: Statistics and Computer Fundamentals

Time allowed: 3 Hours

Max. Marks: 67

**NOTE:** Attempt five questions in all, including Question No. 1 which is compulsory and selecting two questions from each Unit.

x-x-x

I. Attempt the following:-

- a) What are the limitations of secondary data?
- b) Write about the concept of probability.
- c) Define hypothesis testing.
- d) Give an example of cumulative frequency distribution.
- e) What is an optical disc?
- f) Give example of fixed and removable memory. (6x2)
- g) Differentiate between analog and digital computer. (3)

**UNIT - I**

- II. What are grouped and ungrouped frequency distributions? Explain the method of constructing Histogram and frequency polygon. (13)
- III. How arithmetic mean, geometric mean and harmonic mean differ from each other? Explain computation of each type with suitable example. (13)
- IV. Obtain the moment generating function of the binomial distribution. For a binomial distribution with mean 6 and Standard Deviation  $\sqrt{2}$ . Write out all the terms of the distribution. (13)
- V. Write a note on:-
  - a) Markov model
  - b) Regression analysis (13)

**UNIT - II**

- VI. What is computer? Give detailed organization of it with its major functional units and application areas. (13)
- VII. What is the role of computer in Biotechnology field? Elaborate it with suitable example. Also compare digital and analog computers. (13)
- VIII. Discuss features of major types of data storage devices. What do you understand by printed outputs? (13)
- IX. Write a note on:-
  - a) Plotters
  - b) Source data automation (13)

x-x-x