

2053  
B.Sc. (Hons.) Bio-Informatics  
Second Semester  
BIN-2004: Statistics and Computer Fundamentals

Time allowed: 3 Hours

Max. Marks: 60

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

x-x-x

1. Answer the following:-
- Distinguish between classification and tabulation.
  - Write the probability mass function of binomial distribution and in which conditions binomial distribution approaches to Poisson distribution.
  - Define Hardware in computer.
  - Write name of various secondary storage devices in computer.
  - What do you understand by dispersion? Name its various measures.
  - Name five components of a computer.
- (6×2)

**Unit-I**

2. (a): What are the various types of graphs used for presenting a frequency distribution? Discuss briefly their construction and importance.
- (b): Distinguish between primary and secondary data. State the chief sources of secondary data. What precautions should be taken in the use of secondary data? (6, 6)
- 3 (a): Point out the merits and demerits of the mean, the median and the mode as measures of central tendency.

(b): Find the mean deviation and standard deviation from the following data:

Size of the item:	10	11	12	13	14	15	16
Frequency:	2	7	11	15	10	4	1

- (c): Explain the meaning of skewness. State the different measures of skewness that are commonly used. (4, 4, 4)

- 4 (a): Define the followings:
- Baye's Theorem
  - Discrete and continuous random variables
  - Moment Generating Function
  - Box and Whisker Plot

(2, 2, 2, 2)

Contd....P/2

(2)

- (b): Define the Normal and Uniform distribution and state their important characteristics or properties.

(4)

Unit-II

- 5 (a) Distinguish between digital and analogue computers.  
(b) Discuss the various primary storage devices in detail.  
(c) Explain the basic concept of stored program and functional units. (4, 4, 4)
- 6 (a) What do you mean by memory? Explain the characteristics of memory. Also discuss the data processing techniques of computers.  
(b) Distinguish between magnetic tape and magnetic disk. (6, 6)
- 7 (a) List and explain various input devices used in computer system.  
(b) Define the followings:  
(i) Floppy and Hard Disk  
(ii) CD-ROM and RAM  
(iii) Printers and Plotters. (6, 6)

x-x-x