

B.Sc. Semester - 2 (NEP-2020) Examination**MARCH/APRIL-2025****BIT: Biostatistics, Biocomputing and Bioinformatics (Minor-2)****Time: 2:00 Hours****Marks: 50****Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate marks.

- Que-1 (1) Discuss the different methods of data collection and their significance in biostatistics. (05)
(2) Explain the arithmetic mean and its applications in biostatistics. Discuss its merits and demerits. (05)

OR

- Que-1 (1) Define standard deviation and coefficient of variance. How are they useful in statistical analysis?
(2) Discuss the concept of variance and range. Explain their importance in data interpretation.
- Que-2 (1) Describe the Student's t-test and its importance in biological studies. (05)
(2) What is the Chi-square test? Explain its importance in biological data analysis. (05)

OR

- Que-2 (1) How is ANOVA used in biological research? Provide a relevant example.
(2) What is conditional probability? Explain with a suitable example.
- Que-3 (1) Describe different tools used for drawing creation in computer applications. (05)
(2) Discuss the role of the internet in modern communication and data sharing. (05)

OR

- Que-3 (1) What are the key features of MS Word, and how is it useful for documentation?
(2) Explain the process of setting up an email address and its key components.
- Que-4 (1) Describe how bioinformatics is applied in agriculture and industrial sectors. (05)
(2) What are common file formats used in bioinformatics? Explain their significance. (05)

OR

- Que-4 (1) Discuss different types of biological databases with examples.
(2) Describe the structure of biological databases and their organization.
- Que-5 (1) Calculate Mean, Mode and Median of given data set: 18, 25, 03, 48, 12, 45, 18. (05)
(2) Define probability and explain its significance in biostatistics. (05)

OR

- Que-5 (1) What are peripheral devices? Discuss their types and uses.
(2) Define bioinformatics and explain its significance in biological research.
