

B.Sc. Semester - 2 (NEP-2020) Examination**MARCH/APRIL-2025****MIC: Basic Computer & Biostatistics (Multidisciplinary Course)****Time: 2:00 Hours****Marks: 50****Instructions:**

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

- Que-1
1. Elaborate on all four generations of computer systems. (05)
 2. What is number system in computer systems? Explain types of number systems in computer organization. (05)

OR

- Que-1
1. Define Operating system. Mention types and explain any one in detail. (05)
 2. Mention computer languages and elaborate any two. (05)

- Que-2
1. Define Data. Mention different types of data and their collection and presentation methods.... (05)
 2. Elaborate on applications and scope of statistics. (05)

OR

- Que-2
1. Write a note on sampling error. (05)
 2. Define sampling, sample, population, primary data, secondary data. (05)

- Que-3
1. Calculate the mean of the following distribution in an experimental garden for fruit production. (05)

No. of fruits	100-120	120-140	140-160	160-180	180-200	200-220
No. of plants	10	20	25	30	15	5

2. Compute the standard deviation of marks taken by 10 students by actual mean and assumed mean method. (05)

Marks: 80, 45, 92, 66, 76, 81, 39, 77, 59, 86

OR

- Que-3
1. Explain differences between Mean, Median and Mode. (05)
 2. Write a detailed note on the types & uses of correlations. (05)

- Que-4
1. Ten B.Tech. (Dairy Tech.) second year students were selected for a training on quality control on the basis of marks obtained in an examination conducted for this purpose. After one month training they were given a test and marks were recorded out of 50. (05)

Student	A	B	C	D	E	F	G	H	I	J
Before training	25	20	35	15	42	28	26	44	35	48
After training	26	20	34	13	43	40	29	41	36	46

Test whether there is any change in performance after the training.

2. To study the performance of three detergents at three different temperatures the following whiteness readings were obtained (05)

Water temperature	Detergent A	Detergent B	Detergent C
Cold	57	55	67
Warm	49	52	68
Hot	54	46	58

Perform a two way ANOVA at 5 % l.o.s.

OR

- Que-4 1. Explain testing of Hypothesis with suitable example. And mention types of errors in testing hypothesis. (05)
2. Write a note on One way ANOVA clearly mentioning the mathematical model, hypothesis, various sum of squares and the ANOVA table. (05)
- Que-5 1. What is search engine? Elaborate on the types of search tools. (05)
2. Mention various sampling parameters and state the differences between sample and population. (05)
- OR
- Que-5 1. Discuss in brief the utility of standard of deviation in biology and write its merits and demerits. (05)
2. Elaborate on Null & Alternative hypothesis, Simple & Composite hypothesis, Errors in hypothesis and test statistics. (05)
