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**RAN-2003000205030059****T.Y.B.Sc. (Sem. V) Examination October - 2023****Medical Laboratory Technology****IDS : Biostatistics and Bioinformatics****Time: 2 Hours ]****[ Total Marks: 50****सूचना : / Instructions**

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नीचे दृशविवेक निशानीवाणी विगतो उत्तरवली पर अवश्य लपववी.

Fill up strictly the details of signs on your answer book

Name of the Examination:

T.Y.B.Sc. (Sem. V)

Name of the Subject :

Medical Laboratory Technology  
IDS : Biostatistics and Bioinformatics

Subject Code No.: 2003000205030059

Seat No.:

Student's Signature

- (2) All the questions are compulsory.
- (3) Draw neat and labelled diagrams wherever necessary.
- (4) Figures to the right indicate full marks of the question.

**Q-1 Answer the following:****[08]**

1. Define and explain population.
2. In a series of adult, the mean blood pressure was 120 mmHg and S.D. were found 5 mmHg. In the same series the mean Height was found 140 with 2 S.D. Find which character shows greater variation?
3. Give full form of CSIR and UGC.
4. Explain the role of SAGE and NMR in bioinformatics.

**Q-2 Answer ANY ONE of the following: -****[14]**

1. Calculate Mean, SD, CV and Variance of the following data of marks obtained in biostatistics.

Marks obtained	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
No. of Students	5	12	10	20	10	4	2	2

2. Explain the classification of biological database based on type of data.

**Q-3**      **Answer ANY TWO of the following:**      **[14]**

1. Define biostatistics. Explain the role and application of biostatistics.
2. Find the Standard Deviation by Step Deviation method for the following data on the age of patients suffering from pulmonary disease.

Age in years	0-10	10-20	20-30	30-40	40-50	50-60	60-70
No. of Patients	6	14	5	8	1	2	4

3. Give a brief account on Genomics and Metabolomics.

**Q-4**      **Write short note on ANY TWO of the following:**      **[14]**

1. Collection and classification of data.
  2. Calculation, merits and demerits of median.
  3. Branches of Bioinformatics.
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