



RAN - 2003000205030059

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

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.  
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 questions are compulsory.  
(3) Draw diagrams wherever necessary.

**Q. 1 Answer the following:****08**

- 1) What are the purpose and functions of database?
- 2) Write Full form of NCBI and PBD
- 3) Find the mean of following data of HDL concentration of 10 patients:  
25, 30, 21, 55, 47, 10, 15, 17, 45, 35.
- 4) Define
  - 1) Continuous variable
  - 2) Discrete variable

**Q. 2 Attempt any ONE of the following:****14**

- 1) Write detail note on various Branches of Bioinformatics and their application.
- 2) Calculate the following:  
In a study on patients, the following data was obtained. Find Mean, SD and CV of the data.

Age (Year)	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80-89
No. of Cases	1	0	1	10	17	38	9	3

**Q. 3**      **Answer any Two of the followings:**      **14**

- 1) Write the working rule for short cut method for ungrouped data for calculation of mean and write its merits, demerits and use.
- 2) What is biological database? Give features of Biological database.
- 3) Describe in brief Accuracy and Precision.

**Q. 4**      **Write short notes on: (any two)**      **14**

- 1) Collection and classification of Data.
  - 2) Merits, Demerits and Uses of Standard Deviation.
  - 3) Biological Database Retrieval System
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