

PD-395
(573) M.Sc. MICROBIOLOGY (THIRD-SEMESTER)
Examination DEC.- 2020
Compulsory/Optional
Group-
Paper-III

Name/Title of Paper- BIostatistics & Bioinformatics
Time:-Three House.]

[Maximum Marks:080
[Minimum Marks 29

नोट : दोनों खण्डों से निर्देशानुसार उत्तर दीजिए। प्रश्नों के अंक उनके दाहिनी ओर अंकित हैं।

Note: Answer from Both the Section as Directed. The Figures in the right-hand margin indicate arks.

Section-A

1. Fill in the blanks of the following. (1x10=10)
- (a) The symbol of the standard deviation is -----
 - (b) Another name for a random sample is a ----- sample.
 - (c) ----- Are numerical characteristics of sample.
 - (d) Another term of statistical significance test is -----
 - (e) ----- are used with numeric data rather than with categorical data.
 - (f) As sample size increases, the standard error of the mean will-----
 - (g) When the probability of obtaining the study sample result is sufficiently low the researcher should ----- the null
 - (h) Random sample equal to -----
 - (i) SRS stands for -----
 - (j) Write website address of NCBJ
2. Answer the following questions. 2x5 = 10
- (a) What do you understand by mean?
 - (b) What is standard deviation?
 - (c) Write about conditional probability.
 - (d) Write about ANOVA.
 - (e) Write a note on protein folding.

SECTION - B

Answer all questions;

15x4 = 60

Unit -I

3. Find the mean of the following data.

Class	16-20	21-25	26-30	31-35	36-40	41-45
Frequency	2	7	14	8	8	1

OR

Write short notes on the following.

- (a) Graphical representation of statistical data.
- (b) Merits and demerits of mode.

Unit - II

4. Find the standard deviation for the following data.
7, 3, 5, 10, 4, 2

OR

Write short notes on the following.

- (a) Mean deviation.
- (b) Chi-square test.

Unit-III

5. Write in detail about the correction coefficient with an example.

OR

Write short notes on the following.

- (a) Regression lines
- (b) Concept of probability

Unit-IV

6. Write an essay on introduction and scope of bioinformatics.

OR

Write short notes on the following.

- (a) Biological database
- (b) Entrez