A–1216

Total Pages : 4 **Roll No. .....**

MSCBOT-606

M.Sc. Botany (MSCBOT)

Biostatistics

Examination February, 2026

Time : 2:00 Hrs. Max. Marks : 70

Note* :–** This paper is of Seventy (70) marks divided into Two (02) Sections 'A' and 'B'. Attempt the questions contained in these Sections according to the detailed instructions given therein. ***Candidates should limit their answers to the questions on the given answer sheet. No additional (B) answer sheet will be issued.

Section–A

Long Answer Type Questions (2×19=38)

***Note* :–** Section 'A' contains Five (05) Long-answer type questions of Nineteen (19) marks each. Learners are required to answer any *two* (02) questions only.

1. Write an essay on completely randomized block design explaining its main features layout and uses.

2. Write comprehensive notes on the collection of data. Differentiate between primary and secondary data, and discuss how a researcher decides on the appropriate method for data collection.

3. Write detailed notes on the following :

   (a) Graphical and non-graphical data representation.

   (b) Chisquare Test and it's applications.

4. What do you understand by ANOVA ? Give the detailed assumptions of ANOVA.

5. Calculate the mean deviation and its coefficient from the following data :

Class Interval	Frequency
0–10	5
10–20	8
20–30	12
20–40	20
40–50	10
50–60	5

Section–B

Short Answer Type Questions (4×8=32)

***Note* :–** Section 'B' contains Eight (08) Short-answer type questions of Eight (08) marks each. Learners are required to answer any *four* (04) questions only.

1. What do you understand by replication ? Explain it's role in design of experiment.

2. Write a short note on grid and honeycomb designs.

3. What is the meaning of data interpretation ?

4. Explain the following (any *two*) :

   (a) Central tendency

   (b) Scatter Diagram

   (c) Role of correlation in biological samples

5. Write brief notes on the following :

   (a) Degrees of Freedom

   (b) Random Sampling

   (c) Significance

   (d) P-value

6. Discuss the role of correlation in biological samples.

7. Write difference between mean, median and mode.

8. Calculate the correlation coefficient between the heights of Mother in cm (X) and their daughter (Y).

X (Cm)	Y (Cm)
161	163
157	156
159	157
167	167
168	169
155	154
162	161
145	142
141	138

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