

A-1073

Total Pages : 3

Roll No.

MSCZO-603

Bioinformatics and Biostatistics

M.Sc. Zoology (MSCZO)

Examination 2026 (Feb.)

Time: 02:00 hrs

Max. Marks: 70

Note : This paper is of Seventy (70) marks divided into two (02) Section 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)

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.

(2x19=38)

P.T.O

A-1073

1. Discuss gene expression database.
2. Describe role and functions of European Bioinformatics Institute (EBI).
3. Explain the term Molecular Phylogeny. Discuss the methods of phylogenetic reconstruction.
4. What is Chi-square test? Discuss its common applications.
5. What the central tendencies? Explain the formula to calculate mean, median and mode for grouped data.

Section-“B”

(Short -answer - type questions)

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.

(4x8=32)

1. What is bioinformatics? Discuss its field of applications.

2. What do you understand by primary and Secondary Database? Enumerate some of the differences in between them.
3. What is protein sequence database? Discuss its importance.
4. Write a short note on DNA Data Bank of Japan (DDBJ).
5. Discuss the term PAM (percent Accepted Mutation).
6. Explain the term variables and its different attributes.
7. Define secondary data and its collection methods.
8. Explain the term regression. Discuss uses of regression analysis.
