P-217

MSCZO-603

Bioinformatics, Biostatistics and Computer Application

M.Sc. Zoology (MSCZO)

3rd Semester Examination, 2023 (June)

Time : 2 Hours]   **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.

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.

(2×19=38)

1. Define bioinformatics. Discuss its multidisciplinary approach.

2. Describe major nucleotide sequence database.

3. Write an essay on computational tools for DNA sequence analysis.

4. What is t-test, f-test and chi-square test ?

5. Write an essay on research, types of research and use of statistics in biological research.

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.   (4×8=32)

1. Describe phylogenomics and its importance.

2. Discuss briefly the scope of bioinformatics.

3. Explain the growth and importance of GenBank.

4. Define primary, secondary and composite database with examples.

5. Write a note on scope and application of biostatistics.

6. Explain standard deviation and standard error.

7. Give a brief note on Motif analysis.

8. Write about types and uses of Regression analysis.

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