

Roll No. :

Total No. of Questions : 11]

[Total No. of Printed Pages : 3

BFMS-462

M.Sc. (Final) Examination, 2023

BIOTECHNOLOGY

Paper - VII

(Biostatistics, Bioinformatics and Computer Application)

Time : 3 Hours]

[Maximum Marks : 75

Section-A

(Marks : 2 × 10 = 20)

Note :- Answer all *ten* questions (Answer limit **50** words). Each question carries **2** marks.

Section-B

(Marks : 5 × 5 = 25)

Note :- Answer all *five* questions. Each question has internal choice (Answer limit **200** words). Each question carries **5** marks.

Section-C

(Marks : 10 × 3 = 30)

Note :- Answer any *three* questions out of five (Answer limit **500** words). Each question carries **10** marks.

Section-A

1. (i) What is Computer Hardware ?
- (ii) Define Bubble Sort.
- (iii) What are Histograms ?

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- (iv) Define Sampling Variance.
- (v) What does Logit Tells ?
- (vi) What do you mean by LD₅₀ ?
- (vii) Give the use of database in Biodiversity.
- (viii) Name any *two* protein sequence database.
- (ix) Write applications of protein microarray.
- (x) What are the predictive methods for protein and nucleic acid sequences ?

Section-B

2. Discuss the role of computer aided learning in biotechnology.

Or

Discuss Firmware and Hardware.

3. Write a short note on graphical presentations.

Or

What do you mean by Variance ? Give its use in statistical measurement.

4. Discuss correlation and its types.

Or

Write a short note on response dose relationship.

5. What is Bioinformatics ? Discuss its tools and objectives.

Or

Discuss different sequence retrieval databases.

6. What is sequence alignment ? Discuss its types and tools.

Or

Write a short note on sequence analysis of protein spot by mass spectroscopy.

Section-C

7. Write in detail about data structure, types and usage.
8. Explain Binomial, Poisson and Normal distribution in detail.
9. Write a note on Parallel line array.
10. Discuss the various types of Biological databases with examples.
11. Discuss salient features of BLAST and FASTA in detail.