Reg. No. ☐☐☐☐☐☐☐☐☐☐

ZOS 554

Fourth Semester M.Sc. Examination, September/October 2022
(CBCS)
ZOOLOGY
Statistics and Bioinformatics

Time : 3 Hours   Max. Marks : 70

Instructions : 1) Answer **all** questions.
                    2) Give illustrations **wherever** necessary.

I. Write short notes on :   **(5×2=10)**

a) Measures of central tendency.

b) Spearman's rank correlation.

c) Test of significance.

d) BTIS network.

e) BLAST.

II. a) Calculate mean, median and mode for the following data :   **12**

No. of Waxy Endospermic Plants	10	11	12	13	14	15	16
No. of Plants	3	8	12	14	7	6	4

OR

b) Represent the given data with different graphical representation.

No. of Waxy Endospermic Plants	0-5	5-10	10-15	15-20	20-25	25-30
No. of Plants	5	15	50	56	30	50

III. a) Explain in detail about correlation and correlation coefficient with example.   **12**

OR

b) Calculate regression coefficient for the following data :

Pod length (cms)	8	10	15	11	12	9	13	14	10	9
No. of seeds per pod	45	55	70	80	65	70	90	90	76	67

P.T.O.

IV. a) Elaborate on errors in statistics.   **12**

OR

b) Explain ANOVA and its types with example.

V. a) Give a detailed account on biological databases and their classification.   **12**

OR

b) Discuss the internet resources and bioinformatics network.

VI. a) Illustrate pair wise alignment with an example.   **12**

OR

b) Explain progressive Multiple Sequence Alignment and its applications.

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