B.Sc. DEGREE EXAMINATION,NOVEMBER 2018
II Year IV Semester
Allied Paper IV
STATISTICAL METHODS AND ITS APPLICATIONS - II

Time : 3 Hours **Max.marks :60**

Section A $(10 \times 1 = 10)$ Marks

Answer any **TEN** questions

1. What are the different types of correlation?
2. Define rank correlation.
3. What is sampling distribution?
4. Write a note on level of significance.
5. Explain two tailed test.
6. State any two uses of large sample tests.
7. What is degrees of freedom?
8. Write the test statistic for testing significant difference between the variances.
9. What is ANOVA?
10. Define experimental error.
11. What do you mean by critical region?
12. Define Power of a test.

Section B $(5 \times 4 = 20)$ Marks

Answer any **FIVE** questions

13. Explain scatter diagram in detail.
14. Explain null and alternative hypothesis with an example.
15. Describe briefly the large sample test for single proportions.
16. Write down the procedure for testing the significance of single mean of a univariate normal distribution.
17. Write the hypothesis and ANOVA of RBD.
18. Derive the regression line X on Y.
19. Write short notes on Type I and Type II errors.

Section C $(3 \times 10 = 30)$ Marks

Answer any **THREE** questions

20. State and prove the properties of correlation coefficient.

21. Explain the steps involved in testing statistical hypothesis.

22. Write the procedure of the large sample test for testing difference in two means.

23. Explain X^2 test for independence of attributes.

24. Explain the principles of experimental design.

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