B.Sc. DEGREE EXAMINATION,NOVEMBER 2019
II Year IV Semester
Statistical Methods and Its Applications - II

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

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

Answer any **TEN** questions

1. Define correlation.
2. Why we need two regression line?
3. What is Null hypothesis?
4. What do you understand by critical region?
5. Distinguish between linear and non-linear correlation.
6. Define null hypothesis.
7. Define t statistic.
8. What is replication?
9. Give the layout of a Randomized block design.
10. Give the uses of t – test.
11. Define ANOVA.
12. State the assumptions involved in analysis of variance.

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

Answer any **FIVE** questions

13. Explain different types of correlation using scatter diagram.
14. Define Sampling distribution and mention the important sampling distribution.
15. In a sample of 1000 people in Maharashtra, 540 are rice eaters and the rest are wheat eaters. Can we assume that both rice and wheat eaters are equally popular in this state at 1% level of significance.
16. Explain testing the goodness of fit.
17. Write short notes on randomization and Local control.
18. Describe briefly about scatter diagram.
19. Give the properties of regression coefficients.

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

Answer any **THREE** questions

20. Explain rank correlation coefficient in detail.
21. What are the steps involved in testing of hypothesis?
22. (i) Explain the procedure of testing the difference between two population mean when the sample size is large
    (ii) There are 1000 students in a college and 20,000 students in the university. In a study 200 were found smokers in the college and 1000 in the university. Is there a significant difference between the proportion of smokers in the college and university
23. Describe the statistical of Latin Square Design.
24. Explain briefly concepts involved in sampling distribution.

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