

SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)

(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)

Chromepet, Chennai - 600 044.

B.Sc.Statistics - END SEMESTER EXAMINATIONS - NOV'2024

SEMESTER - IV

20UCSAT4004 - Statistical Methods and its Applications - II

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

Section B

Answer any **SIX** questions ($6 \times 5 = 30$ Marks)

1. Explain the term correlation and the different types of correlation.
2. Explain Type I error and Type II error.
3. Write the null hypothesis and test statistic for testing the significance of single mean in large samples.
4. Discuss the applications of t test.
5. Give the ANOVA table for RBD.
6. Point out the advantages of non-parametric test.
7. Explain the test of goodness of fit.
8. Define rank correlation. Write down the Spearman's formula for rank correlation.

Section C

Answer any **THREE** questions ($3 \times 10 = 30$ Marks)

9. Distinguish between correlation and regression.
10. Explain the concepts of sampling distribution, standard error, level of significance and critical region.
11. Explain the procedure of testing the difference of means and difference of proportion for large samples, clearly stating null hypothesis and test statistic.
12. Explain the Chi-square test of independence in contingency table.
13. Give the analysis of LSD.
