

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 - V

**20USTCT5010 - Design of Experiments**

Total Duration : 2 Hrs.30 Mins.

Total Marks : 60

### **Section B**

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

1. Explain the Principles of Design of Experiments.
2. Describe the Statistical Analysis of One – way classification.
3. Prepare the Statistical Analysis of RBD.
4. Explain the method of estimating one Missing observation in RBD.
5. Explain  $2^3$  Factorial Experiments along with YATAB'S procedure.
6. Classify the Differences of Partial confounding and complete confounding in  $2^3$  Design.
7. Classify the analysis of Split plot Design in RBD.
8. Examine the Square root transformation and logarithmic transformation.

### **Section C**

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

9. Explain the procedure of Fairfield Smith's Variance Law.
10. Classify the Analysis of Newman-Keuls test procedure.
11. Examine the analysis of LSD.
12. Compute the efficiency of RBD over CRD.
13. Examine the analysis of  $3^2$  Factorial Experiment.

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