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(Pages: 2)

Name :

Reg. No :

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, APRIL 2025

(CBCSS-PG)

(Regular/Supplementary/Improvement)

CC19P MST2 C06 / CC22P MST2 C05 - DESIGN AND ANALYSIS OF EXPERIMENTS

(Statistics)

(2019 Admission onwards)

Time: 3 Hours

Maximum: 30 Weightage

Part-A

Answer any *four* questions. Each question carries 2 weightage.

1. Define (i) Randomisation (ii) Replication
2. What do you mean by model adequacy checking? Explain.
3. Explain resolvable balanced incomplete block design with example?
4. What do mean by PBIBD? Explain PBIBD with two associate classes.
5. Obtain thhe main effects and interaction effects of a 2^2 factorial design.
6. Briefly explain fractional factorials.
7. Briefly describe the method of steepest accent.

(4 × 2 = 8 Weightage)

Part-B

Answer any *four* questions. Each question carries 3 weightage.

8. Describe the analysis of one way classified data.
9. Briefly explain analysis of CRD.
10. Distinguish between intrablock and interblock analysis of BIBD.
11. Explain Lattice Design.
12. Derive the analyse of 2^3 factorial design.
13. Construct a 2^5 design in blocks of 8 plots confounding ABC, ADE and BCDE.
14. What are Response surface designs? What are the applications of response surface designs in daily life?

(4 × 3 = 12 Weightage)

Part-C

Answer any *two* questions. Each question carries 5 weightage.

15. Explain the analysis of a three way classified data.

16. Explain the analysis of covariance of a randomised block design.
17. Explain BIBD. State and prove parametric relations in BIBD.
18. Explain the analysis of strip plot and split plot design.

(2 × 5 = 10 Weightage)
