M.Sc DEGREE EXAMINATION,APRIL 2019
I Year II Semester
Research Design and Analysis

Time : 3 Hours **Max.marks :75**

Section A $(10 \times 2 = 20)$ Marks

Answer any **TEN** questions

1. What is fixed effect model?
2. State Cochran's theorem.
3. Mention the uses of Latin Square Design.
4. Define balanced incomplete block design.
5. What are the advantages of factorial design?
6. Define 3^3 design.
7. Give the statistical model for the two stage nested design.
8. Define one half factor of 2^3 design.
9. Define bioassay.
10. What are the uses of Bioassay?
11. Define partially confounded design.
12. Give the data model for the single factor experiment.

Section B $(5 \times 5 = 25)$ Marks

Answer any **FIVE** questions

13. Give the analysis of variance table for single factor fixed effect model.
14. Explain the procedure of one missing value in RBD model.
15. Elaborate BIBD.
16. Explain the procedure of 2^3 Factorial Design with ABC is confounding in all the Replicates.
17. Explain split plot design.
18. Differentiate between complete and partial confounding.
19. Explain the classifications bioassay with example.

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

Answer any **THREE** questions

20. Explain the statistical analysis of random effect model of single factor analysis of variance.
21. Explain the analysis of latin square design.
22. Explain partially confounding Design in 2^3 factorial Experiments.
23. Give the statistical analysis of 3^2design.
24. Explain the concept of response surface methodology.

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