

**B.Sc. DEGREE EXAMINATION, NOVEMBER 2019**  
**III Year V Semester**  
**Design of Experiments**

**Time : 3 Hours**

**Max.marks :60**

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

Answer any **TEN** questions

1. What do you mean by Absolute experiments?
2. What is Replication?
3. Define Analysis of Variance.
4. What is Durcan's Multiple Range Test?
5. Give the advantages of Completely Randomized Design.
6. Write down the ANOVA table of RBD.
7. What is meant by missing plot technique?
8. Write down the formula to find one missing observation in RBD.
9. Give an exact situation where we can apply Latin Square Design.
10. Give the sign table for  $2^3$  factorial experiments.
11. Define partial confounding.
12. Define split plot design.

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

Answer any **FIVE** questions

13. Explain Fairfield Smith's variance Law.
14. Explain the procedure of one way Anova.
15. Describe briefly Newman - Keuls test.
16. Write short notes on LSD. Also give the Layout for  $4 \times 4$  design.
17. Explain ANACOVA in detail.
18. Explain the interaction effect of  $2^2$  factorial experiments.
19. Define factorial experiments and also give the Yates table for  $2^3$  factorial design.

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

Answer any **THREE** questions

20. Explain in detail the principles of an experimental design.
21. Explain the testing procedure of Two-way Anova in detail.
22. Explain the complete analysis of a Latin square design.
23. How to perform ANACOVA technique in RBD.
24. Explain the analysis of  $3^2$  factorial experiment.

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