B.Sc. DEGREE EXAMINATION, APRIL 2018.

III YEAR V SEMESTER

Core Major - Paper X - DESIGN OF EXPERIMENTS

Time : 3 Hours Max. Marks : 60

SECTION A – (10 × 1 = 10 marks)

(Q. No. 1-12)Answer any *TEN* questions

1. What is replication?

2. How to determine the size of an experimental unit?

3. State Cochran’s theorem.

4. What is DMRT?

5. Define ANOVA?

6. Give the applications of Latin Square Design.

7. Write any two advantages of Randomized Block Design.

8. What is missing plot technique?

9. Write down the formula for two missing observations in RBD.

10. What is ANACOVA?

11. What is confounding?

12 .Give the sign table of a 23 Factorial experiment.

SECTION B – (5 × 4 = 20 marks)

(Q. No. 13-19)Answer any *FIVE* questions

13. Describe Fairfield Smiths Variance Law.

14. Explain Tukeys test.

15. Describe the statistical analysis of One-way ANOVA.

16. Explain the statistical testing procedure of one missing observation in RBD.

17. Differentiate between Partial and Multiple Confounding.

18. Write short notes on Split-Plot design.

19. Briefly describe ANACOVA in CRD.

SECTION C – (3 × 10 = 30 marks)

(Q. No. 20-24)Answer any *THREE* questions

(Answer any THREE questions)

20. Explain the basic principles of an experimental design.

21. Describe the statistical analysis of Two-way ANOVA.

22. Explain the testing procedure of Latin Square Design.

23. Describe the least square method of estimating two missing observations in RBD.

24. Give a complete analysis of 23 Factorial experiments.