

End Semester/Reappear (Semester II) Examination May 2025

Programme: M. Sc. (Ag) Agronomy

Full Marks: 50

Subject: Design of Experiment

Time: 2 Hrs.

Subject Code: 13A.STAT.511

Enrollment No: _____

Section I

1. Short Answer type questions. Answer any four.

4 x 5 = 20

- a. List sources of livestock in agriculture.
- b. Define the basic principle of experimental design.
- c. Prepare the procedure for a 2 X 2 factorial experiment.
- d. Explain the use of split plot design.
- e. Discuss the contribution of livestock in Indian Economy.
- f. Express the sign table for 2 x 2 factorial designs.

Section II

Long Answer type questions. Answer any two.

2 x 15 = 30

2. a. Describe procedure for locating an experimental plot for crop cutting experiments. 10
b. Discuss crop cutting experiments. 5
3. a. Classify the merits and demerits of progeny row selection. 10
b. What is the advantage and disadvantage of strip plot design? 5
4. a. Explain the mean by interactional factorial design. 10
b. List the advantage of factorial design. 5
5. a. The following data give the yields on 12 plots of land in three samples each of 4 plots three varieties of fertiliser A, B, and C, 10

<u>A</u>	<u>B</u>	<u>C</u>
25	20	24
22	17	26
24	16	30
21	19	20

Is there any significant difference in the average yields of land under the three varieties of fertilisers? [Given that F at d.o.f (2, 9) at 5% level= 4.26]

b. Discuss the Randomized Block Design (RBD).

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