



End Semester/Reappear (Semester II) Examination May 2025

Programme: M. Sc. (Ag) Agronomy

Full Marks: 50

Subject: Agronomy of Oil Seed, Fiber, Sugar & Tuber Crops

Time: 2 Hrs.

Subject Code: 13A.AGRON.507

Enrollment No: _____

Section I

1. Short Answer type questions. Answer any four.

4 x 5 = 20

- a. Discuss how waterlogging condition is not suitable for potato growth and development.
- b. Discuss briefly the climatic requirements for linseed. Explain why Kharif crops cannot be grown in Rabi season in open field condition?
- c. Discuss the importance of pulse crops in human diet. Explain the importance of water management in critical stage of growth in pulses.
- d. Explain how sun hemp contributes to soil fertility when used as a green manure.
- e. Describe harvesting procedure in sugarbeet. Discuss relationship between time of sowing and duration of varieties.
- f. Discuss the economic importance of potato. Enlist recommended varieties of potato according to sowing time.

Section II

Long Answer type questions. Answer any two.

2 x 15 = 30

2. a. How would you plan nutrient management for mustard crop in a sulfur-deficient area? Imagine you are a farmer in Jharkhand and your mustard crop is struggling with the problem. What steps would you take to improve your crop?
b. A farmer is facing an issue with rapeseed diseases. What are some common diseases that affect rapeseed plants? What preventative measures can be taken to minimize the risk?
3. a. A farmer is facing problems with seed storage after harvesting their oilseed crop. Recommend proper post-harvest management practices, including drying, storage structures, and pest control to minimize losses.
b. A farmer in Ulatu, Jharkhand wants to grow niger during the upcoming Kharif season. Recommend factors to consider while choosing a niger variety to plant, keeping in mind the local climate, sowing time and soil conditions?
4. a. Recommend suitable package of practices (viz. origin, classification, soil, varieties, cropping system, land preparation, seed rate and spacing, manures and fertilizers, weed control, harvesting and yield) of jute.
b. Compare and contrast the traditional methods of fiber extraction and processing with modern techniques, focusing on the impact on fiber quality, productivity, and labor requirements.
5. a. Evaluate some of the main challenges faced by sugarcane farmers in India. Explain modern methods of irrigation in brief.
b. Analyze the potential causes of low yields in potato cultivation in the given context, considering factors like soil fertility, climate, pest control, and post-harvest handling. Suggest a comprehensive production strategy to improve yield and quality, including specific recommendations for soil management, pest control, and harvesting techniques.