

End Semester/Reappear (Semester II) Examination May 2025

Programme: M. Sc. (Ag) Agronomy
Subject: Modern Concepts in Crop Production
Subject Code: 13A.AGRON.501
Enrollment No: _____

Full Marks: 50
Time: 2 Hrs.

Section I

- 1. Short Answer type questions. Answer any four. 4 x 5 = 20**
- Mention different stages of cellular growth along with diagram.
 - Illustrate Leaf Area Index and its limitation.
 - Explain the universality of Inverse-Yield N law.
 - Explain few genetic factors affecting plant population.
 - Define production function. Enlist various forms of production function.
 - Mention standard criteria for accreditation of organic certification.

Section II

- Long Answer type questions. Answer any two. 2 x 15 = 30**
- Explain quantitative agro-biological principles and inverse-yield nitrogen law.
 - Analyze Baule unit and its applicability.
 - Develop a plan of crop model with proper input along with steps of validation in your own words. Mention application of crop modeling.
 - Classify crop response curves related to yield of plant. Discuss them along with diagram.
 - Explain different production function curves along with mathematical expression and suitable diagram.
 - Briefly explain different scientific principles of crop production.
 - Recommend important challenges of organic pest and disease management in your own words. Explain characteristics of biopesticides.
 - Define Integrated Nutrient Management. Explain various components of INM.
