K25P 2868

Reg. No. : .....

Name : .....

III Semester M.Sc. Degree (CBCSS – OBE – Reg./Supple./Imp.) Examination, October 2025
(2023 Admission Onwards)
BOTANY
Open Elective Course
MSBOT03O02 : Basic Agricultural Practices

Time : 3 Hours Max. Marks : 60

PART – A

Answer **any five** questions. **Each** question carries **3** marks.

1. Explain the concept of tillage and tilth in the context of agronomy.
2. Define plant ideotypes and their significance in crop improvement.
3. What are the core principles of crop rotation, and how do they contribute to sustainable agriculture ?
4. List and describe at least three initiatives taken by the government, NGOs, or other organisations to promote organic agriculture in India.
5. Briefly explain the scope and significance of agronomy.
6. Describe the key differences between multiple cropping and intercropping systems. **(5×3=15)**

PART – B

Answer **any three** questions. **Each** question carries **6** marks.

7. Compare and contrast bio-herbicides with synthetic chemical herbicides from a holistic perspective.
8. Explain the scientific rationale behind the fortification of organic nutrient resources like compost or farmyard manure.

P.T.O.

9. "Precision farming as a cornerstone of sustainable agriculture". Substantiate this statement with suitable examples.

10. Explain how herbicide formulation influences its efficacy.

11. Elaborate on Allelopathy, and its application for weed management. **(3×6=18)**

PART – C

Answer **any three** questions. **Each** question carries **9** marks.

12. Explain how herbicide formulation influences its environmental impact, and the potential for developing herbicide resistance. How can this knowledge be integrated into a robust resistance management program ?

13. Discuss in detail about Precision Farming and Resource Conservation. Evaluate the potential of precision farming technologies.

14. Describe how an understanding of a weed's methods of reproduction and dissemination is crucial for developing an effective integrated weed management plan.

15. Explain the role of water and energy conservation in sustainable agriculture.

16. Critically evaluate the role of intercropping in achieving agricultural sustainability. How does this practice contribute to pest management and soil health for the farmer ? **(3×9=27)**

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