

AGRICULTURE (CODE NO. 01)

1. General Agriculture

Agriculture and its importance in national economy.

2. Agronomy

Crops of India, Agrotechniques of major field crops of India. Sustainable cropping systems. Agroclimatic and Agroecological zones .

3. Soil Science

Soil and its composition and its role in crop production, physical, Chemical, and biological properties of soil. Essential plant nutrients, their function and dynamics. Integrated nutrient management, Problem soils and their management.

4. Plant Physiology

Absorption, translocation and metabolism of nutrients, Diagnosis of nutrient deficiencies and their amelioration, Photosynthesis and respiration, Growth and development, growth regulators.

5. Crop Improvement

Elements of genetics and plant breeding as applied to crop improvement.

6. Horticulture

Package of practices of important fruit vegetable Spices and economically important flowering plants, Nursery management and propagation methods of horticultural crops. Problems (unfruitfulness, alternate bearing, fruit drops etc.) and physiological disorders and their management. Post-harvest handling. Processing of fruits and vegetables.

7. Plant Protection

Important insect pests and diseases affecting important crops and their management. Components of integrated pest and disease management. Spray equipments, their selection and maintenance. Rodent management. Safety precautionary measures during pesticide usage.

8. Agricultural Economics

Meaning, principles of economics as applied to agriculture, Farm planning and resource management for optimal production. Farming

systems and their economic role. Marketing of agricultural produce and regulated markets in MP including initiatives like (*e-chaupal*) Price of agricultural produce and its role in agricultural production.

9. Agricultural Extension Education

Philosophy, objectives and principles of extension. Extension organizations at the state, district and block levels, their structure, functions and responsibilities. Methods of communication. Role of farmer's organizations in extensions services. Role and importance of trainings. Important rural development programmes in India.