

AGRONOMY (AGNM)

Class - XII

Full Marks 100

Theory-80 marks

1. Growth of crop; concept of field components; growth stages of crops; preliminary concept of the development physiology related to growth of crops such as rice, wheat, potato and jute.
2. Major and minor plant nutrients and their availability to plants; soil organic matter and soil organisms, soil reaction and ion exchange; saline, sodic and acid soils, soil erosion and its control.
3. Manures and fertilizers: Role of manures and fertilizers in crop production, important manures and fertilizers in crop production, important manures and fertilizers- compost, farm yard manure, green manure, oil cake, ammonium sulphate, urea, calcium ammonium nitrate, super phosphate, potassium sulphate, mixed fertilizers – their properties and uses.
4. Crop production and propagation: cereals (rice and wheat), sugarcane, banana, tomato, mango, brinjal.
5. Crop protection: nature of damage due to pests, diseases and weeds, insect pests, diseases, weeds and methods of their control; protection against rodents; precautions required to handle pesticidal chemicals.
6. Law of diminishing returns in fertilizer use, special features of rainfed and irrigated agriculture. Cost of production of crops and important farm operations like ploughing, weeding, harvesting, threshing etc.

PRACTICAL (20 marks)

1. Identification of different manures and fertilizers. Acquaintance with different methods of fertilizer application. Study of the effect of fertilizers and other agricultural chemicals on crop growth and yield.
2. Familiarity with different crop production operations (seedling raising, transplanting etc) in the important crops consistent to the theory course.
3. Identification of different farm weeds, important diseases, insect pests and their damages, handling of hand sprayer and duster.
4. Construction of manure pit. Raising of green manure crops for green manuring.
5. Acquaintance with the cultivation of important crops according to the theory course.
6. Students' practice of budding, inarching & Goote making.