

Punjab Board

SYLLABUS

2024-2025

AGRICULTURE
CLASS – XI
Session 2024-25

SYLLABUS (THEORY)

Unit - 1
SOIL AND SOIL MANAGEMENT

1. Elementary knowledge of rock and minerals, weathering of rocks, soil formation, soil profile, alkaline and acidic soils.
2. Elementary knowledge of soil texture and structure, properties of soiled separates (sand, silt and clay), textual classification of soils, Structural classification of soil, soil tillage.
3. Elementary knowledge of water, importance of water in plant growth, various methods of irrigation and water lifts, used in Punjab.
4. Elementary knowledge of soil fertility- Factors affecting soil fertility. Methods of maintaining soil fertility. Organic manures (compost, F.Y.M., oil cakes and green manures) and inorganic fertilizers (nitrogenous, phosphatic and potassic and mixed fertilizers). Introduction to micronutrients.
5. Elementary knowledge of water logging-causes and remedies.
6. Elementary knowledge of tillage, implements used.

UNIT - 2
FARM CROP AND FARM MANAGEMENT (Elementary knowledge)

1. Classification of crops, rotation of crops, crop mixture.
2. Study of the following crops with respect to their climatic and soil requirements, area, preparation of seedbed, time of sowing, seed rate, manurial requirement, spacing, interculture, irrigation, important pest diseases, harvesting, threshing, yield etc.
   (a) Wheat, barley, gram, toria, barseem, potato, peas, radish, carrot, turnip and onion.
   (b) Cotton, maize, sugarcane, rice, groundnut, bajra, sorghum, brinjal, okra, cauliflower, gourd, melons, tomato, sunflower.
3. Fruit tree-Importance of fruits and irrigational requirements for growing, layout of orchards: Cultivation of mango, guava, grapes, citrus, ber and peaches, important pests and diseases of fruit and their control.
4. Common weeds of the Punjab and their control.
5. Farm Management-Study of farming as business, costs of farm operations of major crops; sowing, intercultural, harvesting and threshing, cost and income returns from major crops, simple farm records and accounts.

UNIT - 3
AGRICULTURE BIOLOGY – BOTANY

1. Biology-its definitions, comparison of living and non-living things, difference between animals and plants.
2. Cell-structure and cell division in plants, simple tissues in plants.
3. Elements of plant classification including major groups with common examples.
4. Study of the forms, structure and functions of root, stem, leaf and flower.
5. Vegetative reproduction-natural and artificial.
6. Seed structure of gram, pea, maize and castor and germination of seed. Conditions necessary for germination. Dispersal of seed.
7. Elementary study of bacteria and fungi and their economic importance.

UNIT - 4

AGRICULTURE BIOLOGY – ZOOLOGY

1. Study of animal cell-its structure and division of animals.
2. Study of simple tissues in animals.
3. Study of animal classification indicating major phyla with examples.
4. Protozoa-Study of Amoeba and Entamoeba.
5. Study of external characters of Liver fluke, Ascaris, Earthworm and their economic importance.
6. Study of general characters of insects with specific reference to the study of external characters of ak-grass hopper.
7. Study of external characters of frog, fish and rabbit.
8. Economic importance of mammals.

SYLLABUS (PRACTICAL)

SOIL MANAGEMENT AND CROP CULTURE

1. Identification of soil by feel and touch method. Measurement of land.
2. Familiarity with farm implements and their handling, ploughing, preparation of seed-bed, sowing and harvesting of major field crops and vegetables and their harvesting.
3. Identification of common weeds, crops and their seed and fruit trees.

AGRICULTURE BIOLOGY

PART-A

General survey of plant kingdom, study of simple tissues of plant, structure and form of root, stem, leaf and flower. Demonstration of grafting, layering, budding, cutting,; Demonstration of studies of bacteria and fungi.

PART-B

1. General survey of animal kingdom.
2. Study of external characters of amoeba, liver fluke, ascaris, earthworm, ak-grass, hopper, frog, fish and rabbit.

Note: Students will do all the practical work of the farm attached to the school and record in the practical note book maintained for this purpose.

Study Materials

aglasem.com

Model Papers

Sample Papers

Half Yearly Sample Papers

Important Resources

Periodic Table

Writing Skills / Formats

Maps of India / World

Notes

- [ ] Class 6 Notes
- [ ] Class 7 Notes
- [ ] Class 8 Notes
- [ ] Class 9 Notes
- [ ] Class 10 Notes
- [ ] Class 11 Notes
- [ ] Class 12 Notes

Books and Solutions

NCERT Books

NCERT Book Solutions

HC Verma Chapter Wise Solutions

RD Sharma Solutions

CGBSE Solutions