

PAPER I

COMMERCIAL NURSERY MANAGEMENT FOR HORTICULTURAL CROPS

DETAILED SYLLABUS

Unit 1: Introduction to commercial nursery management **10 marks**

Nursery trade in India, Scope for commercial nursery. Definition of nursery, Nursery management. Different types of ornamental / flowering plants, some popular ornamental plant species.

Unit 2: Planning and lay out of commercial nursery **10 marks**

Selection of site, Planning and layout, Structures for nursery, Standard rootstocks

Unit 3: Tools and implements for nursery **10 marks**

Different types of tools and implements,, pots and pans, Seedling trays, Plant supports and tying materials and others

Unit 4: Propagation techniques **30 marks**

Definition, Seed Propagation – procedure of seed propagation, Vegetative Propagation-propagation by cuttings, propagation by layering ,propagation by budding, propagation by grafting, propagation by specialized vegetative structures

Unit 5: Propagation of some important flowering crops **20 marks**

Propagation of chrysanthemum, Propagation of dahlia, propagation of bulbous ornamental plants by corms and bulbs, propagation of gladiolus, propagation of tuberose

Unit 6: Propagation by Tubers, Rhizomes and their division **20 marks**

Propagation by specialized organs/structures-tubers, rhizomes, suckers

PAPER 2

COMMERCIAL NURSERY MANAGEMENT FOR HORTICULTURAL CROPS

DETAILED SYLLABUS

Unit 1: Raising saplings of nut crops (Coconut and Arecanut):

Raising of saplings- coconut –criteria of selection of mother palm for nut collection , method of sowing, good quality seedling, method of sowing of arecanut, seedling quality of arecanut 10

Unit 2: Multiplication techniques in black pepper and betel vine:

Multiplication techniques-vine cutting, leaf bud cutting,trench layering or Rapid Multiplication Technique. 10

Unit 3: Commercially available rooting and growing media and vermicompost production :

An ideal rooting medium, media for propagation and growing nursery plants- soil, sand, peat, sphagnum moss, vermiculite, perlite, pumice. Media for potting. Vermicompost production-preparation, use of vermicompost in nursery 15

Unit 4: Propagating structures:

Low cost propagating structures-high density low cost poly houses, shade net houses, nursery beds and boxes. High cost propagating structures-high cost sophisticated Greenhouse, hotbeds, lath houses ,mist chamber, mist bed, fluorescent light boxes, propagating case 10

Unit 5: Potting and repotting of nursery plants

Potting-advantages, pot mixtures, containers, potting procedure, maintenance Repotting 10

Unit 6: Diseases and pest in nursery and their management

Common diseases and their management-Damping off, Anthracnose, blights, die back, leaf spots, powdery mildew. Common pest and their management- Scales, thrips, aphids, mealy bugs, white flies, mites, leaf eating caterpillars, cutworms, leaf miner, snail and slugs 15

Unit 7: Progeny Block

Definition, importance of progeny block, Selection of plants/varieties. Planting in progeny block, Maintenance of progeny block, 10

Unit 8: Storage of Seeds

Procedure for collection of seeds ,Techniques of seed storage ,Containers and Bags, Management during Storage, Maintenance of seed purity 15

Unit 9: Record keeping in nursery

Different types of records 5

PAPER 3

COMMERCIAL NURSERY MANAGEMENT FOR HORTICULTURAL CROPS

DETAILED SYLLABUS

- Unit 1: Preparation of Layout of a Commercial Nursery
- Unit 2: Identification of Tools and Implements for Nursery
- Unit 3: Seed Bed Preparation, Seed Sowing and Raising of Vegetable and Flower Seedlings
- Unit 4: Economics of Vegetable and Flower Seedling Production
- Unit 5: Propagation by Cuttings
- Unit 6: Propagation by Grafting
- Unit 7: Propagation of Chrysanthemum and Dahlia
- Unit 8: Propagation of Black Pepper and Betel Vine
- Unit 9: Propagation of Coconut and Arecanut
- Unit 10: Visits to Commercial Nurseries.