EXTENDED LECTURE OUTLINE

HRT6 311 Ornamental Crops, MAPs and Landscaping (1+1)

Theory

- **Importance and scope of ornamental crops and landscaping**
- **Principles of landscaping:** Initial approach, axis, focal point, mass effect, unity, space, divisional lines, proportion and scale, texture, time and light, tone and color, mobility and style
- **Landscape uses of trees, shrubs and climbers**
- **Garden features:** Herbaceous Border, Hedge, Edge, Carpet bedding, Topiary, Lawn, Bonsai, Flower arrangement
- **Concept of Home landscaping:** Components of home gardening (Basic guidelines for a home landscape, making plan for approach or public area, work or service area, private garden area or living area)
- **Production technology of rose under protected condition:** Climate, soil, varieties, land preparation, fumigation, raised bed preparation, propagation, planting, stem bending in rose, pruning, disbudding, irrigation, nutrition, weeding, application of bud caps, harvesting and yield
- **Production technology of gerbera under protected condition:** Climate, soil, varieties, land preparation, fumigation, raised bed preparation, propagation, transplanting, irrigation, nutrition, deleafing, harvesting and yield
- **Production technology of orchids under protected condition:** Climate, soil, varieties, growing environment, propagation, growing media, irrigation, nutrition, harvesting and yield
- **Production technology of lilium under protected condition:** Climate, soil, varieties, propagation, planting methods, nutrition, irrigation, weed management, harvesting and yield of flowers and bulbs
- **Production technology of chrysanthemum under protected condition:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, pinching and disbudding, use of growth regulators, harvesting and yield
- **Production technology of carnation under protected condition:** Climate, soil, varieties, land preparation, fumigation, raised bed preparation, planting, irrigation, nutrition, netting, pinching, de-shooting and disbudding, harvesting of flowers and yield
- **Production technology of gladiolus (Open cultivation):** Climate, soil, varieties, propagation, dormancy, planting methods, nutrition, irrigation, staking, weed management, harvesting indices, harvesting and yield of spikes and corms
- **Production technology of tuberose (Open cultivation):** Climate, soil, varieties, propagation, planting methods, nutrition, irrigation, weed management, harvesting and

yield of spikes and bulbs

- **Production technology of marigold (Open cultivation):** Climate, soil, varieties, sowing and transplanting methods, nutrition, irrigation, weed management, pinching, use of growth regulators, harvesting and yield
- **Production technology of jasmine (Open cultivation):** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, pruning, harvesting and yield
- **Processing and value addition of important ornamental crops:** Tinting, dry flower technology, essential oil, concrete and absolute, Potpourri and Floral Crafts
- **Importance and scope of medicinal and aromatic plants**
- **Production technology of ashwagandha:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of geranium:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of costus:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of isabgol:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of mint:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of ocimum:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of aloe:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of coleus:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of glory lily:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of periwinkle:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of lemongrass:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of citronella:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of vetiver:** Climate, soil, varieties, propagation methods, planting methods, nutrition, irrigation, weed management, harvesting and yield
- **Production technology of palmarosa:** Climate, soil, varieties, propagation methods,

planting methods, nutrition, irrigation, weed management, harvesting and yield

- **Processing and value addition of MAPs produce:** Alkaloids and Essential oil (Distillation, Enfleurage, Maceration, Solvent extraction)

References:

1. Floriculture in India by G.S. Randhawa and Mukopadhyay
2. Introduction to spices, plantation crops, medicinal and aromatic plants by N.Kumar, Abdul Khadder, P. Rangaswamy, I. Irulappam
3. Text book of floriculture and landscaping by Anil K. Singh and Anjana Sisodia
4. Commercial flowers (Vol1and2) by T.K. Bose
5. Commercial Floriculture – S. Prasad/ U. Kumar
6. Complete Gardening in India – Gopalaswami Iyengar
7. Floriculture – Technology, Trades and Trends – by J. Prakash and K.R. Bhandaly
8. Floriculture -At Glance by Desh Raj
9. Protected cultivation of Roses – by Dr. T. Venkatesh Reddy, &Dr. C.G. Nagaraja
10. Cultivation of Medicinal and Aromatic Crops (2006), Ed.: A. A. Farooqi & B. S. Sreeramu, Publishers: Universities Press, Hyderabad

1. **Practicals**

1.	Identification of Ornamental plants (trees, shrubs, climbers, seasonal flower and house plants)
2.	Nursery bed preparation and sowing of seasonal flower seeds
3.	Propagation of ornamental plants by terminal/herbaceous cuttings
4.	Propagation of Anthurium and orchids
5.	Propagation of bougainvillea
6.	Planting of gerbera suckers and Gladiolus corms
7.	Establishment and maintenance of lawn
8.	Preparation of flower preservatives and their use in extending the vase life of cut flowers
9.	Training and pruning of ornamental plants and raising of hedge and edge
10.	Planning and layout of garden
11.	Identification of MAPs
12.	Propagation techniques of ashwagandh,costus,aloe
13.	Propagation techniques of ocimum,coleus,glory lilly and periwinkle
14.	Propagation techniques of lemongrass, citronella, vetiver and palmarosa
15.	Visit to floriculture garden/ nursery

Theory

Production technology of ashwagandha, costus, isabgol and geranium; Production technology of mint, aloe, and ocimum, coleus, glory lily, periwinkle etc.; Production technology of plants like lemongrass, citronella, vetiver and palmarosa etc., Importance and scope of ornamental crops; Importance and scope of medicinal and aromatic plants and landscaping; Principles of landscaping; Landscape uses of trees, shrubs and climbers, Production technology of important cut flowers like rose, gerbera and orchids; Production technology of gladiolus, tuberose and lilium; Production technology of chrysanthemum and carnation; Package of practices for loose flowers like marigold and jasmine under open conditions; Brief concept of Home landscaping, Carpet bedding, Topiary, Bonsai, Lawn, flower arrangement, Herbaceous Border, Hedge, Edge etc.; Processing and value addition of important ornamental crops; Processing and value addition of MAPs produce.

Practical

Identification of MAPs and Ornamental plants (trees, shrubs, climbers, seasonal flower and house plants). Propagation of MAP, Bed preparation and planting of MAP; Nurserybed preparation and sowing of seasonal flower seeds; Propagation of ornamental plants by terminal/herbaceous cuttings; Propagation of Anthurium and orchids; Propagation of bougainvillea; Planting of gerbera suckers; Gladiolus corms; Establishment and maintenance of lawn; Preparation of flower preservatives and their use in extending the vase life of cut flowers; Training and pruning of ornamental plants and raising of hedge and edge; Planning and layout of garden.