



DEPARTMENT OF BOTANY

MORIGAON COLLEGE

MORIGAON, ASSAM

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ADD ON CERTIFICATE COURSE

COURSE TITLE: DEVELOPMENT AND MANAGEMENT OF ORNAMENTAL PLANTS

PAPER CODE: ADC-BOT-05

Total-50 (20+20+10)

COURSE OUTCOME:

- Students will gain comprehensive understanding of the cultivation, plant care and management of the ornamental plants.
- Students will have a brief idea about the use of different ornamental plants in landscaping.
- Students will have an idea about the marketing and commercial aspects of different ornamental plants
- The course will benefit students in developing ornamental plants based startups.

THEORY (20 marks)

Unit 1: introduction to Ornamental Plants

- Definition and significance of ornamental plants
- Historical perspective of ornamental horticulture
- Economic and environmental importance- significance of ornamental plants in landscaping.

Unit 2: Environmental requirements and propagation techniques

- Soil composition and structure, soil pH and nutrient requirements for ornamental plants
- Light, temperature, and water consideration for ornamental plants
- Propagation via seed, vegetative methods- cuttings, grafting, layering, tissue culture and micropropagation

Unit 3: Maintenance of ornamental plants

- Culture care and maintenance of succulents, ferns, palms, grasses and cycads
- Pruning-aesthetic, reproductive and physiological objectives, General guidelines for pruning

Unit 4: Fertilization and nutrient management

- Essential nutrients for ornamental plants
- Fertilizer selection and application techniques

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Unit 5: Pest and disease management

- Common pests and diseases of ornamental plants
- Importance for adoption of safe and sustainable pest control method

Unit 6: Sustainable practices in Ornamental plants

- Organic gardening principles
- Environment friendly packaging of plants for transportation
- Efficient irrigation methods for water conservation
- Biodiversity and habitat consideration


PRACTICALS (20 marks):

- Identification of some important ornamental bulbous plants, foliage, succulent, palms and cycads, ferns, bamboos and other grasses.
- Preparation of nursery bed
- Sowing of seeds
- Potting, repotting and depotting
- Arrangement and display of ornamental plants

WORKSHOP/TRAINING (10 Marks)

Suggested readings

1. Arora, J.S. 2006. Introductory Ornamental Horticulture. Kalyani Publishers, Ludhiana
2. Bose, T. K. and Chowdhury, B. 1991. Tropical Garden Plants in colour .Horticulture and allied publishers, 3D Madhab Chatterjee street Kolkata
3. Bose, T.K. Malti, R.G. Dhua, R.S. & Das, P. 2004. Nayaprakash, Calcutta. Floriculture and Landscaping
4. Chadha, K.L. and Chaudhary, B. 1986. Ornamental Horticulture in India. Publication and Information division. ICAR, New Delhi
5. Jitendra Singh, 2011. Basic Horticulture. Kalyani Publications, New Delhi.
6. K.V.Peter. 2009. Ornamental plants. New India publishing agency, Pitampura, New Delhi
7. Kumar, N., 1990. Introduction to Horticulture. Rajyalakshmi publications, Nagarcoil, Tamilnadu
8. Mudambi, Sumati R. and Rajagopal, M.V. Fundamentals of Foods & Nutrition, Third Edition, New Age International (P) Limited Publishers, New Delhi.
9. N.G. Ravichandra, 2013. Fundamentals of Plant Pathology. PHI Hall of India, New Delhi
10. Prasad and Kumar, 2014. Principles of Horticulture 2nd Edn. Agrobios (India)
11. Prof. Bhattacharjee, S.K. Advanced Commercial Floriculture. Aavishkar Publishers Distributors, Jaipur - 320 003
12. Richard Bird. 2002. Flowering trees and shrubs. Printed in Singapore by Star Standard Industries pvt. Ltd.


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