

Practical Plan

Name of the college: Government College of Arts, Science & Commerce, Sanquelim-Goa		
Name of Faculty: Dr. Smita Srivastava	Subject: Botany	
Paper code: BOT- 142	Program: F.Y.B.Sc	Batch: II
Academic year: 2026 – 2027	Semester: I	Total Practicals/Labs: 60 hours
Credits: 02		
Course Objectives: 1. Increase the understanding about the different types of gardens, their features and routine operations in nursery management and gardening. 2. Impart skills in designing a plant nursery, different types of gardens, cultivation practices to be followed in operating a plant nursery and garden.		
Expected Course Outcome: CO1: Recall the principles of plant nursery establishment, garden types, garden features, and routine horticultural practices. CO2: Explain the planning, design, management, and maintenance requirements of nurseries and gardens. CO3: Describe the principals involved in the planning, design, management, and maintenance of nurseries and gardens. CO4: Apply appropriate techniques for nursery operations, plant propagation, garden development, and plant care practices.		
Student Learning Outcome: ❖ Identify different types of plant nurseries and gardens and recognize their characteristic features. ❖ Observe and explain routine nursery operations, including seed sowing, propagation, watering, weeding, potting, and maintenance practices. ❖ Develop skills in planning and designing nurseries and gardens based on principles of layout, plant selection, and aesthetics. ❖ Perform practical activities such as plant propagation, nursery management, lawn maintenance, hedge trimming, and garden care. ❖ Apply horticultural techniques for the cultivation, maintenance, and management of ornamental and horticultural plants. ❖ Demonstrate teamwork, problem-solving, and environmental responsibility through hands-on nursery and garden activities.		

Month	Practicals/Labs Scheduled Date	No. of Practical / Labs planned	List of Experiments	Reference books
July	9/07/2026	2	Preparation of a layout sketch of a plant nursery. Preparation of layout sketches of any 2 types of gardens.	Kumar, N. (1997) – <i>Introduction to Horticulture</i> ; Rao, K.M. (2005) – <i>Textbook of Horticulture</i>
	16/07/2026	2	Familiarization with various tools, implements, and plant supports. Propagation of plants by cutting, layering, budding, grafting, runners, suckers, corms, bulbs, bulbils and tubers.	Kumar, N. (1997); Bose & Mukherjee (1972)
	23/07/2026	1	Identification and description of any 2 plants used for avenues, hedges, flower beds, lawns, ornamental shrubs, rock garden, water garden and indoor garden.	Acquaah (2019) – <i>Horticulture: Principles and Practices</i> ; Edmond et al. (1957) – <i>Fundamentals of Horticulture</i>
	30/07/2026	1	Cultivation of any 3 vegetables in the College Botanical Garden (red amaranth, cluster beans, cucurbits, chillies, lady's finger, ginger and tomato).	Bose & Mukherjee (1972); Randhawa & Mukhopadhyay (1986) – <i>Floriculture in India</i>
August	06/08/2026	1	Treatment of seeds of coriander or other suitable seeds to break dormancy and to find germination percentage of treated seeds.	Agrawal, P.K. (1993) – <i>Handbook of Seed Technology</i> ; Janick (1979) – <i>Horticultural Science</i>
	13/08/2026	1	Raising of any 2 seedlings in seed trays, preparation of potting mix, transplanting of seedlings in pots and bags; care and maintenance of plants till flowering/maturity.	Kumar, N. (1997); Rao, K.M. (2005)
	20/08/2026	1	Preparation of potting medium and cultivation of different types of potted plants (foliage, succulent, anthurium and orchid).	Sandhu, M.K. (1989) – <i>Plant Propagation</i> ; Kumar, N. (1997)
	27/08/2026	1	Preparation of compost. ISA 2ND (Written test)	Courtier & Clarke (1997); Randhawa & Mukhopadhyay (1986)

September	03/09/2026	1	Demonstration of cultivation of house plants and aftercare of upright and climbing plants. ISA 3RD (Viva)	Acquaah (2019); Kumar, N. (1997)
	10/09/2026	1	Field visit to a plant nursery or landscape garden.	
	17/09/2026	-	Ganesh Chaturthi	
	24/09/2026	2	Preparation of a terrarium. Preparation/creation of a vertical garden and its aftercare	Courtier & Clarke (1997) – <i>Indoor Plants</i> ; Bose & Mukherjee (1972)
October	01/10/2026	2	Preparation of a coir stick/coir basket. Preparation of a garden in window boxes, troughs and trays (any 2).	Bose & Mukherjee (1972); Zingare, A.K. (2013) – <i>A Manual of Gardening</i>
	08/10/2026		Practical Examination	

Assessment Rubrics

Component	Max Marks
ISA 1	5
ISA 2	5
ISA 3	5
Practical	40
Project	NA
Semester End Exam	NA