

Semester Lecture Plan (Theory)

Name of the college: Government College of Arts, Science and Commerce, Sanquelim							
Name of Faculty: Ms Vinita Baykar			Subject: Botany				
Paper code: BOT-112			Program/Course: B.Sc.			Division: A	
Academic Year: 2026-2027			Semester: I			Total Lectures: 30	
Course Objectives: 1. Familiarize students with the importance of plants in daily life, traditional practices, environmental management and sustainable resource utilization using modern plant-based technologies. 2. Identify economically important plants and their uses in value-added plant products. 3. Impart hands-on training in plant identification, preparation of herbal and eco-friendly products, extraction techniques, laboratory testing, and field-based study of local plant resources.							
Expected Course Outcome: On completion of the course, students will be able to • CO1: Recall the significance of plants in daily life, environmental management, traditional practices, plant resources, and value added products. • CO2: Explain plant-based services, morphological features for plant recognition, resource utilization, and preparation of plant-derived products. • CO3: Apply knowledge of plant resources, sustainable cultivation practices, and herbal products for healthy and sustainable living. • CO4: Analyze and evaluate the role of plants in sustainability, healthcare, food security, and value addition for societal well-being.							
Student Learning Outcome: By the end of the course the students will gain							
• Knowledge of plant resources and their utilization in medical, agricultural, and value-added products							
Month	Lectures		No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
	From:	To:					
July	7/07/2026	11/07/2026	02	Common wild plants: Unique features and uses of the following: Hirda (<i>Terminalia chebula</i>), Matti (<i>Terminalia</i>	identify, learn botanical	Chalk and board;	Economic Botany: A Textbook of Useful

				<i>elliptica</i>), Bhillo mad (<i>Caryota urens</i>)	names and medicinal uses of this plants in surrounding areas	Power point presentations	Plants and Plant Products by Hill
	13/07/2026	18/07/2026	02	Chunna (<i>Ziziphus rugosa</i>) and Kanna (<i>Carissa carandas</i>).Grandma's herbal pouch: Unique features, plant parts used and medicinal importance of the following: Tulsi (<i>Ocimum sanctum</i>), Adulsa (<i>Adhatoda vasica</i>), Aale (<i>Zingiber officinale</i>),	Identify the plants listed and learn their uses		The Big book of home remedies by Billings
	20/07/2026	25/07/2026	02	Halad (<i>Curcuma longa</i>), Kirayte (<i>Andrographis paniculata</i>), Ganjan (<i>Cymbopogon citratus</i>), Ottalao (<i>Coleus aromaticus</i>) and			Everyday Ayurveda: The complete book of Ayurvedic home remedies by Shailesh
July/August	27/07/2026	1/08/2026	02	Punarnava (<i>Boerhaavia diffusa</i>)Essential crop plants used in daily life: Unique feature, parts used and uses of the following: a. Cereals: Rice, wheat b. Millets: Ragi, jowar			Botany for B.Sc. students, Economic Botany,
August	3/08/2026	8/08/2026	02	c. Legumes: Bengal gram, green gram d. Cash crops: Cashew, sugarcane e. Plantation crops: Banana, mango f. Essential oils / edible oils: Eucalyptus, coconut			Ethnomedicine and phytochemistry/Commercial Botany and phytochemical
	11/08/2026	15/08/2026	02	g. Tuber crops: Potato, sweet potato h. Vegetable crops: Radish, lady's finger i.			Analysis by Upadhyay
	17/08/2026	22/08/2026	02	Spices: Nutmeg, black pepper j. Timber: Teak (Sailo), rose wood (Shisham) Utilization of plants in value added products.	Compare and contrast different extraction methods		
	24/08/2026	29/08/2026	02	Herbal based hair dye: Preparation of hair dye using different ingredients (Henna, Bhringaraj, Hibiscus, Amla) and their role; method of application.			
August /September	31/08/2026	5/09/2026	02	ISA II Herbal cosmetics and aromatics: Introduction and scope; extraction methods – maceration, infusion, decoction, distillation and tinctures			

September	7/09/2026	12/09/2026	02	Role of plants as cleansers (neem, cucumber), scrubs (marigold, orange peel), wash (rose – face wash; Hibiscus, amla – hair wash), packs (sandalwood, turmeric) and creams (rose, jasmine).	Enlist some herbal products used in day to day life and mention plants used in them	Chalk and board; Power point presentations	Economic Botany in the Tropics by Kochhar A Text Book of Economic Botany by Singh
	21/09/2026	26/09/2026	02	Types of herbal preparations – powder, poultice, ointments, tablets, syrup, balms, capsules and creams			
September/October	28/09/2026	3/10/2026	01	Paper industry: Raw materials used, manufacturing process and kinds of paper	Name different types of papers		
October	5/10/2026	10/10/2026	02	Beverages: Processing of tea and coffee. Eco-friendly use of plant parts: Arecanut spathe, banana fresh leaves, Kumyo leaves (<i>Carex arborea</i>), jackfruit leaves and bamboo culm.	Botanical names of plants and parts used for various purposes		
	12/10/2026	17/10/2026	01	Fibres: Processing and uses of coir, banana and sisal.			

Assessment Rubrics

Component	Max Marks
ISA 1	-
ISA 2	7.5
ISA 3	7.5
Practical	NA
Project	NA
Semester End Exam	60