Lecture Plan

Name of the college: Government college of arts science and commerce Sanquelim-Goa

Name of Faculty: Anuja Naik	**Subject:** Botany (plants in everyday life)	
Paper code: BOT-111	**Program/Course: F.Y B.Sc.**	**Division: A**
Academic year: 2024 - 2025	**Semester: II**	**Total Lectures: 30**

Course Objectives: This course is designed to give an overview of how plants are indispensable to humans. It gives a broad exposure to the various aspects of plant resource & its utilization.

Course Learning Outcome: 1. Recall various economically and medicinally important plant species used in day-to-day life.
2. Explain the uses of economically important plants and illustrate the processing of various plant parts.
3. Analyze the utilization of various plant resources in day-to-day life.
4. Apply theoretical knowledge in utilization, and report generation of economical and medicinal plants. Create awareness on conservation of medicinal plants and use of natural plant products as alternatives to synthetic products.

Month	Lectures From:	To:	No. of lectures allotted	Topic, Subtopic to be covered	Learning outcome	Exercise/ Assignment	ICT Tools	Reference books
December	9-12-24	14-12-24	3	Module 1: Plant services to humans in everyday life. Introduction to science of Botany.	Students are able to explain the role of plants in human everyday life.	Students are suppose to write 5 names of plants after identifying local plants in their surrounding	Power point presentation	Economic and medicinal botany by v. verma Billings S and Collingwood S (2013). The Big book of home
				Plant resources in everyday life.	Students are able to explain the role			

					of plants in human everyday life.		remedies. Lulu.com publisher.
				Role of plants: Air purifier (photosynthesis)	Students explain the role of plants in air purifying with the help of process photosynthesis.		Singh V, Pande PC and Jain DK (2009). A Text Book of Economic Botany. Rastogi Publications, Uttar Pradesh.
	16-12-24	21-12-24	3	plants used in rituals/festivals; Pollution removal (phytoremediation and its types),	students list the plants used in rituals and festivals and define the different types of phytoremediation.		
				Pollution indicator (lichens)	Students identify the lichens as pollution indicator		
				nutrient source (litter manure, organic manure).	explain the nutrient source from litter manure and organic manure		
	23-12-24	23-12-24	1	Familiarizing the students to identify plants based on morphology of plant parts.	Students are able to identify the different morphological characters of the plant parts.		
January	2-1-25	4-1-25	1	Familiarizing the students to identify plants based on morphology of plant parts.	Students are able to identify the different morphological characters of the plant parts.		

	6-1-25	11-1-25	3	Familiarizing the students to identify plants based on morphology of plant parts.	Students are able to identify the different morphological characters of the plant parts.	
				Identify common wild plants using live plants/ herbarium/photographs etc.	Students identify the common plants from their surrounding and also identify the plants based on its mophology	
				Common wild plants and their utilization: Identification and utilization of following plants: Hirda (Terminalia chebula), Behda (Terminalia bellirica), Matti (Terminalia elliptica), Kinal (Terminalia paniculata),	Students identify and state the uses of Hirda (Terminalia chebula), Behda (Terminalia bellirica), Matti (Terminalia elliptica), Kinal (Terminalia paniculata),	
	13-1-25	18-1-25	3	Savar (Ceiba pentandra), Kate-savar (Bombax ceiba), Bhillo mad (Caryota urens), Arjun/Pandruk (Sterculia foetida), Kumyo (Careya arborea),	Students identify and state the uses of Savar (Ceiba pentandra), Kate-savar (Bombax ceiba), Bhillo mad (Caryota urens), Arjun/Pandruk (Sterculia foetida), Kumyo (Careya arborea),	Students are suppose to write 5 names of wild plants after identifying local plants in their surrounding from their parents.

				Asale (Microcos paniculata), Charan (Buchanania cochinchinensis), Chunna (Ziziphus rugosa) and Kanna (Carissa carandas).	Students identify and state the uses of Asale (Microcos paniculata), Charan (Buchanania cochinchinensis), Chunna (Ziziphus rugosa) and Kanna (Carissa carandas).			
				Grandma's herbal pouch: Following plants to be studied with respect to botanical source, part of the plant used, and medicinal uses: Tulsi (Ocimum sanctum), Adulsa (Adhatoda vasica),	Students are able to recognize the plants and their medicinal uses of Tulsi (Ocimum sanctum), Adulsa (Adhatoda vasica),			
	20-1-25	25-1-25	3	ISA(Assignment) + Ale (Zingiber officinale), Halad (Curcuma longa), Kate kuvar (Aloe vera), Kirayte (Andrographis paniculata), Ganjan (Cymbopogon citratus),	Students are able to recognize the plants and their medicinal uses of Ale (Zingiber officinale), Halad (Curcuma longa), Kate kuvar (Aloe vera), Kirayte (Andrographis paniculata), Ganjan (Cymbopogon citratus)			
				Ottalao (Coleus aromaticus), Vaikhand (Acorus calamus), Punarnava (Boerhaavia diffusa), Paripat (Oldenlandia	Students are able to recognize the plants and their medicinal uses of Ottalao (Coleus aromaticus),			

				corymbosa) and Gulvel (Tinospora cordifolia).	Vaikhand (Acorus calamus), Punarnava (Boerhaavia diffusa), Paripat (Oldenlandia corymbosa) and Gulvel (Tinospora cordifolia).			
	27-01-25	31-1-25	3	Module 2: Plant resources and utilization-. a. Cereals: Rice.	Students identify describe and state the use of cereals-Rice.			
				Wheat, Maize	Students identify describe and state the use of cereals-Wheat and Maize			
				b. Millets: Ragi, Jowar.	Students identify describe and state the use of millets-Ragi, Jowar.			
February	3-2-25	8-2-25	3	Jowar Bajra	Students identify describe and state the use of millets-Jowar and Bajra			
				c. Legumes: Bengal gram, Green gram.	Students identify describe and state the use of Legumes: Bengal gram, Green gram, Red gram.			
				Black gram and Cowpea.	Students identify describe and state the use of Black gram and Cowpea.			
	10-2-25	15-2-25	3	d. Cash crops: Cashew, Sugarcane.	Students identify describe and state			

					the use of Cash crops: Cashew and Sugarcane.	
				cocoa	Students identify describe and state the use of cocoa	
				e. Plantation crops: Coconut,	Students identify describe and state the use of Plantation crops: Coconut	
	17-2-25	22-2-25	3	Banana, Mango	Students identify describe and state the use of Banana and Mango.	
				Mango, Jackfruit	Students identify describe and state the use of Mango and Jackfruit	
				f. Edible oils: Groundnut, Coconut,	Students identify describe and state the use of Edible oils: Groundnut and Coconut	
	24-2-25	28-2-25	3	Soyabean and Palm Oil.	Students identify describe and state the use of Soyabean and Palm Oil	
				g. Starch and tuber crops: Potato, Sweet potato and Yam	Students identify describe and state the use of Starch and tuber crops: Potato, Sweet potato and Yam	
				h. Vegetable crops: Red amaranth, Radish,	Students identify describe and state	Students are told to

				Lady's finger, Teren, 1 hour Kudduki, Ankur and Taikhil	the use of Vegetable crops: Red amaranth, Radish, Lady's finger, Teren, 1 hour Kudduki, Ankur and Taikhil	get different vegetable in their syllabus for studying the morphological characters.
March	3-3-25	8-3-25	3	Module 3: Plant resources and utilization-II a. Spices: Chillies, Nutmeg, Clove, Black pepper,	Students briefly describes the different spices and their morphological characters.	
				Cardamom, Star anise (Chakriful) and Dagad phul	Students briefly describes the different spices and their morphological characters.	
				b. Beverages: Tea and Coffee (including processing).	Students understand the processing of tea and coffee	
	10-3-25	15-3-25	3	b. Beverages: Tea and Coffee (including processing).	Students understand the processing of tea and coffee	
				c. Eco-friendly use of plant parts: Banana fresh leaves, Arecanut spathe,	Students are able to make eco friendly products as their day today source of living	Students are told to make eco friendly products with help of plant

						products
				Kumyo leaves (Carea arborea), Jackfruit leaves and Bamboo culm.	Students are able to make eco friendly products as their day today source of living	
	17-3-25	22-3-25	3	d. Oils: Eucalyptus, Rose and Orange peel (including methods of extraction)	Students understands the process of extraction of different oils.	
				ISAIII + Oils: Eucalyptus, Rose and Orange peel (including methods of extraction)	Students understands the process of extraction of different oils.	
				e. Fibres: Coir, Cotton, Jute, Banana and Sisal Including method of separation of spathe, drying and storing of fibre of banana and; Collection, drying,	Studenst understands about different fibres used in day today life.	
	24-3-25	29-3-25	2	e. Fibres: Coir, Cotton, Jute, Banana and Sisal Including method of separation of spathe, drying and storing of fibre of banana and; Collection, drying	Studenst understands about different fibres used in day today life.	
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April	1-4-25	5-4-25	2	processing and extraction of fibre from Agave leaf (demonstration/video)	Studenst understands about different fibres used in day today life.			
				f. Timber: Teak (Sailo), Rose wood (Shisham), Matti and Bamboo.	Students understand and try to recognize different timbre and their properties			
	7-4-25	11-4-25	3	f. Timber: Teak (Sailo), Rose wood (Shisham), Matti and Bamboo.	Students understand and try to recognize different timbre and their properties			
				g. Rubber: Hevea brasiliensis.	Students learn about rubber plant.			