

Semester Lecture Plan (Theory)

Name of the college: Government College of Arts, Science and Commerce, Sanquelim							
Name of Faculty: Dr Jyosna Gawas			Subject: Botany				
Paper code: BOT-101			Program/Course: B.Sc.		Division: A		
Academic Year: 2026-2027			Semester: I		Total Lectures: 15		
Course Objectives: This course aims to increase the understanding about the diversity of morphological and anatomical features of higher plants							
Expected Course Outcome: On completion of the course, Students will be able to analyse the morphological and anatomical features of plants.							
Student Learning Outcome: By the end of the course the students will gain knowledge on morphology and anatomy of higher groups of plants							
Month	Lectures		No. of lectures allotted	Topic, Subtopic to be covered	Exercise/ Assignment	ICT Tools	Reference books
	From:	To:					
June	19/06/2026	20/06/2026	0	-			Taxonomy of Vascular Plants by G. H. M Lawrence Plant systematics: Theory and Practice by G Singh
	22/06/2026	27/06/2026	1	Morphology of flowering plants: Root: Characteristics, functions, types (tap root and adventitious root); modifications of tap root for storage (fusiform, conical, napiform); modifications of adventitious			
June / July	29/06/2026	04/07/2026	1	roots for storage (tuberous, fasciculated, nodulated) and other modifications (prop, stilt, parasitic, breathing, epiphytic and clinging roots).			
July	06/07/2026	11/07/2026	1	Stem: Characteristics, functions and types – aerial (caudex,			

				decurrent, twiner, tendril, thorn, phylloclade); sub-aerial (runner, sucker, offset, stolon); underground (rhizome, bulb, corm, tuber).			Taxonomy of Practical Botany-II by A. M. Bendre & A. Kumar
	13/07/2026	18/07/2026	1	Leaf: Characteristics, structure and functions; types (simple, compound); phyllotaxy (alternate, opposite, whorled); shape (linear, lanceolate, elliptical, ovate, cordate, sagittate); apex (acute, obtuse, acuminate); margin (entire, wavy, serrate), venation (reticulate, parallel).			
	20/07/2026	25/07/2026	1	Inflorescence: Characteristics, types – cymose (monochasial, bichasial) and racemose (raceme, panicle, spike, spadix, catkin, umbel, capitulum).			
	27/07/2026	01/08/2026	1	ISA; Flower: Whorls and their functions, symmetry, aestivation.			
August	03/08/2026	08/08/2026	1	Fruit: Definition and types – simple (dry {achenial – achene, caryopsis, nut, and capsular – legume, follicle, capsule} and fleshy {berry, pome, drupe}),			Plant Embryology by Bhojwani & Bhatnagar
	10/08/2026	15/08/2026	1	Aggregate (eaterio of berries and eaterio of follicles) and multiple (sorsis, syconus).			
	17/08/2026	22/08/2026	1	Seed: Parts of a seed, types (endospermic and non-endospermic), germination (hypogeal and epigeal).			
August / September	31/08/2026	05/09/2026	1	Structure of dicot and monocot embryo, seed dispersal mechanisms,			
September	07/09/2026	12/09/2026	1	Tissues in plants: Types, position and functions of meristems			Plant Anatomy by B P Pandey
	14/09/2026	19/09/2026	1	Position and functions of simple tissues (parenchyma, collenchyma, sclerenchyma)			
	21/09/2026	26/09/2026	1	Complex tissues (xylem and phloem).			
September / October	28/09/2026	03/10/2026	1	Plant responses: Tropic responses in plants (phototropism,			Plant Physiology by V K Jain

				geotropism, chemotropism, hydrotropism and thigmotropism)			
October	05/10/2026	10/10/2026	1	Leaf movements (nyctinasty and seismonasty).			
	12/10/2026	14/10/2026	1	Revision			

Assessment Rubrics

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