

Month & Year	Title of the Topic	No. of Lectures	Test / Tutorial
15Nov. 2017	A. Plant anatomy		Tutorial – 3
	1. Introduction Definition, scope of plant anatomy and types of tissues	02	
	2. Epidermal tissue system Structure and function of epidermal tissue system, uniseriate and multiseriate epidermis, stomata: structure, types and functions, epidermal outgrowth: glandular and non-glandular	04	
Dec-2017	3. Mechanical tissue system Principles involved in distribution of mechanical tissues – inflexibility, incompressibility, inextensibility and shearing stress, tissues providing mechanical support, their distribution in leaf, stem and root of dicots and monocots.	04	
	4. Vascular tissue system Structure and function of xylem, phloem and cambium	04	
	5. Normal secondary growth Introduction, cambium and its role, process in stems of Helianthus annuus and Annona squamosa, extrastelar and intrastelar secondary growth, annual rings, periderm, bark, tylosis and lenticel	05	
	6. Anomalous secondary growth Introduction, causes, anomalous secondary growth in dicot stem (Bignonia) dicot root (Raphanus) and monocot stem (Dracaena).	05	
Jan-2018.	B. Plant Embryology		Tutorial – 4 & Field Visit
	7. Introduction Definition and scope of plant embryology	01	
	8. Microsporangium and male gametophyte a. Microsporangium: structure of tetrasporangiate anther, types of tapetum, sporogenous tissue. b. Microsporogenesis: process and its types, types of microspore tetrad. c. Male gametophyte: structure and development of male gametophyte.	05	
	9. Megasporangium and female gametophyte a. Megasporangium: structure, types of ovules – anatropous, orthotropous, amphitropous, campylotropous, circinotropous. b. Megasporogenesis: tenuinucellate and crassinucellate ovules, types of megaspore tetrads. c. Female gametophyte: structure of typical embryo sac, types of embryo sacs with examples – monosporic, bisporic and tetrasporic.	07	
Feb 2018	10. Fertilization Mechanism of pollination- entomophily, anemophily, hydrophily, zoophily, germination of pollen grain, double fertilization (syngamy and triple fusion) and its significance.	05	
	11. Endosperm and embryo a. Endosperm: Types – nuclear, helobial and cellular. b. Embryogeny: structure of dicot and monocot embryo and seed formation.	06	
Mar 2018	Practical Exam		