

V.V SSANGHA'S
Smt. A.S.M. COLLEGE FOR WOMEN, BALLARI
DEPARTMENT OF BOTANY
TEACHING PLAN

Academic Year:2023-24

Course: Botany

Semester: III

Name of Teacher : Sushma VH

Unit No.	Title of the chapter and Description	Period/Month	No of hours allotted	Hours taken/ conducted	Teaching Pedagogy/ Methodology used
I	REPRODUCTIVE BIOLOGY				
	MICROSPORANGIUM : Development and structure of mature anther, Anther all layers, Tpetum - types, structure and functions and sporogenous tissue	6 periods/ JAN	14	8	
	MICROSPOROGENESIS :	2 periods/ JAN		8	
	Microspore mother cell, microspore tetrad, pollinia			6	chart & chalk
	MEGASPORANGIUM :				
	Structure of typical ovule. Types of ovule - Anatropous, orthotropous, amphitropous, circinotropous .	2 periods / feb		2	chart & chalk
	Pollination and Fertilisation				
	structure and functional aspects of pollen, stigma and style, post pollination events; current aspects of pollen and significance of double fertilisation, post fertilisation changes	4 periods / feb		4	chart & chalk
	ENDOSPERM ;				
	Types and its biological importance. Free nuclear (cocos nucifera) cellular (cucumis), helobial types. Ruminant endosperm	4 periods / mar		4	chart & chalk
	EMBRYOGENESIS ;				
	Structure and composition of zygote, dicot (casella bursa-pastoris) and Monocot (Najas) embryo development. A general account of seed development	2 periods / mar		2	chart & chalk

Sushma

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	Morphology of Root, Stem and Leaf. Their modifications for various functions. Inflorescence - types. Structure and variations of flower. Fruits-types. Floral diagram and floral formula. Introduction to Taxonomy: History, objectives, scope and relevance of Taxonomy Systems of classification: Artificial, Natural and Phylogenetic; brief account of Linnaeus', Bentham& Hooker's, Engler and Prantl's system and APG IV System (2016).-Merits and demerits of classification. Taxonomic literatures: Floras, Monograph. Revisions, Journals. Herbaria and Botanical gardens: Important herbaria and botanical gardens of the world and India, roles botanical gardens and Technique of Herbarium Preparation. Virtual herbarium; E-flora; Documentation		30hrs	20	chart and talk
	Taxonomical hierarchy Concept of taxa (family, genus, species); Categories and taxonomic hierarchy; Species concepts (biological, morphological, evolutionary). Modes of speciation, Rankless system of phylogenetic systematics Botanical Nomenclature: Principles and rules (ICN); Latest code (Shenzhen code - 2019), Brief account of Ranks of taxa, Type concept (Typification), Rule of priority, Author citation., valid publication, rejection of names, principle of priority and its limitations; Names of hybrids/cultivate			16	chart and talk

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