S.B.V.P.Samaj's Sahakar Maharshi Bhausaheb Santuji Thorat College of Arts, Science & Commerce, Sangamner- 422605

Teaching Plan of Theory Courses

Academic Year:2017-2018

Term/Semester:I Class: S.Y.BScSubject:Taxonomy Of Angiosperms And Plant Community

Month	Title of the Topic		Test /
& Year	The of the Topic	No. of Lectures	Tutorial
15 June	Admission Process		Tutorial – 1
2017	1. Introduction to Plant taxonomy		
	1 Definition, scope, objectives and importance	03	
	2 Identification, classification, nomenclature		
	3 Concept of Systematics		
July-2017	2. System of classification	0.6	
	1 Types of systems with their merits and limitations- a)Artificial system- Carl Linnaeus	06	
	,b)Natural system -Bentham and Hooker, c) Phylogenetic system- Engler and Prantl		
	3.Taxonomic literature	02	
	Flora, monograph, revisions, manuals, journals, periodicals and references books.		
	4. Source of data for systematics	06	
	1. Morphology 2. Anatomy 3. Cytology 4. Embryology 5. Phytochemistry6.	06	
	Molecular biology		
Aug. 2017	5.Botanical nomenclature		Test - 1
	1. History 2. Binomial nomenclature 3. ICBN- principles	0.6	
	4. Rules of nomenclature 5. Coining of generic names and specific epithets.	06	
	6. Kanks and endings of taxa names 7. Principle of priority		
	8. Effective and valid publications 9. Single and double authority citation		
	10. Nominaconservanaa 6 Study of plont family		
	5.5 Study of plant families with reference to systematic position salient features floral		
	formula floral diagram and any five examples with their economic importance –	11	
	Annonaceae Meliaceae Myrtaceae Rubiaceae Solanaceae Ascleniadaceae	11	
	Funborbiaceae, and Amaryllidaceae		
G			
Sept-2017	7.Computer in Taxonomy	04	
	1. Concept of neroarium their advantages and limitations		
	2. Digital /e-neroarium and ment advantages	Ű.	
	5. Data bases, concept and needs.		
	4. Ose of computer in plant classification 8 Introduction to Ecology		
	1 Definition 2 Concept 3 Autecology and synecology	05	
	4 Ecosystem and its components: biotic and abiotic 5 Food chain	05	
	6 Food web 7 Ecological pyramids		
Oct. 2017	9.Ecological grouping of the plant		Tutorial – 2
000.2017	Ecological grouping of the plants with reference to their significance of adaptive external	<u> </u>	
	and internal features: a) Hydrophytes, b) Mesophytes c)Xerophytes d) Halophytes with	05	& Field
	examples.		Visit
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Teaching Plan of Theory Courses

Academic Year:2017-2018

Term/Semester:IIClass: S.Y.BScSubject:Plant Anatomy and Embryology

Month & Year	Title of the Topic	No. of Lectures	Test / Tutorial
15Nov.	A. Plant anatomy		Tutorial – 3
2017	1. Introduction Definition, scope of platn anatomy and types of tissues	02	
	2. Epidermal tissue system Structure and function of epidermal tissue system, uniseriate and multiseriateepidermis,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 inleaf, 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 annus and Annonasqamosa, extrastelar and intrastelar secondary growth, annual rings, periderm, bark, tylosisandlenticel	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
	7. Introduction	01	& Field
	Definition and scope of plant embryology		Visit
	 a. Microsporangium and male gametopnyte a. Microsporangium: structure of tetrasporangiate anther, types of tapetum, sporogenoustissue. 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		