Teaching Plan of Rupalekha Ghorai 2016-2017

Paper	Topic	Year	Pass/ Hons	Topic Content	Duration of Teaching	No of Class	Teaching Method	Reference Books
I	Section-II 1. Bryophyte	1st	Pass	Classification (Proskauer,1957) upto class with characters and examples ofHepaticopsida,Anthoserotopsida and Bryopsida,Life hitories ofRiccia,Anthoceros and funaria.	5 Aug – 2 Sep.	12L	Lecture	1.Studies botany-Mitra, Guha, Chodhuri, dutta
	2.Pteridophyte			Classification(Sporne ,1975) upto class with characters and examples of Psilopsida, Lycopsida, Sphenopsida and Filicopsida. Life histories of Lycopodium, Selaginella and Pteris.	3 Sept.- 12 Nov.	12L		2. College Botany-Gaangule & Kar
	3.Gymnosperm			Classification upto class(Sporne 1965).Life histories of Cycas,pinus, Gnetum.	19 Nov – 16 Dec	12L		
	4.Paleobotany			Introduction and definition, Types of fossils, fossilization process, geological time scale , importance of fossil study.	17 Dec. – 6 Jan.	6L		
	Section-III 1.Morphology and Embryology			Inflorescence -Different types, Flower-types and forms,flower as a modified shoot , aestivation , floral diagram, floral formulas, placentation types , Ovule structure, self and cross pollination - definition , contrivances and agents , adventages and disadventages . Fruits and seeds -types and dispersal , germination of seeds.Development of atypical normal (8 nucleated) embryosac , fertilzation chages in Capsella sp.	7 Jan. – 4 Feb	10L	Lecture	1.Studies botany-Mitra, Guha, Chodhuri, dutta

	2.Taxonomy			Definition , principles of Taxonomy , preliminary idea about Artificial,Natural and Phylogenetic system of classification , Principles of ICBN , an outline of Benthum and Hooker's Takhtazan's system of classification , field and herbarium techniques and maintenance. Distinguishing features of the following families including economically important plants - Poaceae, Liliaceae, Orchidaceae, Brassicaceae,Papilionaceae, Caesalpiniaceae, Euphorbiaceae, Malvaceae, Apocynaceae, Verbenaceae, Lamiaceae, Solanaceae, Rubiaceae, Asteraceae.	9 Feb. – 16 Mar.	15L		2. College Botany-Gaangule e & Kar
	3.Economic Botany			Classification of commercially important plants. General knowledge about the cultivation of the following economically important plants - Rice, Betel leaf, Cashew nut.	17 Mar-23 Mar	3L	6L	

Teaching Plan of Rupalekha Ghorai 2016-2017

Paper	Topic	Year	Pass/ Hons	Topic Content	Duration of Teaching	No of Class	Teaching Method	Reference Books
II	Section-I 1.Anatomy:	2nd	Pass	Plant cell wall: Gross structure, Ultra structure, Composition and function. Tissue: Meristamatic and Permanent - structure, distribution and function. Stele: Defination, types with example. Normal Secondary	5 Aug.- 16 Sept	15L	Lecture	1.Studies botany-Mitra, Guha, Chodhuri, dutta

				growth in dicot stem. Stomatal types.				
	2.Ecology:			Brief knowledge on biosphere and biome, ecotype, Climatic factors, Plant succession, Stages of succession like Xerosere and Hydrosere. Ecological adaptations of hydrophyte, halophyte and Xerophyte. Carbon and nitrogen cycle. Air and water pollution: Causes and adverse effects.	18 Sep. - 20 Jan	15L		2. College Botany- Gaangulee & Kar
	3.Ethnobotany			Concept of ethnobotany and significance of its study.	21 Jan.-5 Feb.	5L		

Teaching Plan of Rupalekha Ghorai 2016-2017

Paper	Topic	Year	Pass/ Hons	Topic Content	Duration of Teaching	No of Class	Teaching Method	Reference Books
III	Practical Units						Lecture	
	1.Work out	2nd	pass	Volvox, Oedogonium, Mucor, Penicillium,	1 Sep. – 22 Sep.	4L		
	2.Work out			Riccia, Funaria, Selaginella and Pteris,Lycopodium.	6 Oct. – 8 Dec.	5L		

	3.Angiospermic Plant			3.Description and identification (including microscopic preparation) ofa) Dissection, drawing, description of some angiospermic plants under the following prescribed families. Study of their flowers with parts, floral diagram, floral formula and identification of the family with reasons. Papilionaceae, Caesalpiniaceae, Malvaceae, Apocynaceae, Verbenaceae, Lamiaceae, Solanaceae, Rubiaceae.	15 Dec.-19 Jan.	5 L	1.Lecture 2.Demonstration, 3.Exprerimental	Practical Botany-P.Maji
	4.Plant Physiology Experiment			the following specimens:1. To determine the transpiration pull of a twig of mesophytic plant. 2. Determination of the rate of transpiration per unit area of leaf by weighing method. 3. Determination of the rate of oxygen evolution during photosynthesis. 4. Determination of the DPD with the help of storage tissue. 5. Imbibition of water by Starchy and Proteinaceous seeds.	9 Feb. – 16 Mar.	6 L		