

Teaching Plan of Theory Courses

Academic Year:2014-2015

Term/Semester:I&II

Class: F.Y.BSc

Subject: INDUSTRIAL BOTANY

Month & Year	Title of the Topic	No. of Lectures	Test / Tutorial
15 June	Admission Process		
July-2014	1. Introduction to industrial Botany 1. Concept of industrial Botany..2.Plant resource and Industries :Food, Fodder ,Fibers, Medicine, Timber, Dyes, Gum, Tannins	02	Tutorial – 1
	2. Floriculture industry 1. Introduction to floriculture.2.Important floriculture crops .Open cultivation practices, harvesting and marketing of Tuberose.3.Green house technology: Concept, advantage and limitation.4.Cultivation practices, harvesting and marketing of Rose and Gerbera.	08	
Aug. 2014	3. Plant nursery Industry 1. Concept and type of Nurseries: Ornamentalplant nursery, Fruit plant nursery medicinal plant nursery, vegetable plant nursery, orchid plant nursery, forest plant nursery. 2.Propagation method :Seed propagation ,Natural vegetative propagation Artificial vegetative propagation(Cutting—stem, Layering-Air layering, Grafting-stone grafting and Approach grafting ,Budding-T-budding)	08	Test – 1
Sept-2014	4 Plant tissue culture Industry 1. Concept of tissue culture. 2. Culturetechnique: Types of explants, preparation of media, Methods of sterilization, inoculation technique, inoculation and hardening. 3. Commercial significance.	06	
	5.Agri Industries 1. Organic farming: Concept, need of organic farming, Types of organic fertilizer, advantage and limitation .2.Seed industries: Importance of seed industries, seed production, seed processing and seed marketing with reference to cotton. Major seed industries and corporation of India.	08	
Oct. 2014	6. Mushroom Industries Mushroom cultivation: Plant resources, cultivation practices of Oyster mushroom use of mushroom, value added product, commercialsignificance.	04	Tutorial – 2 &FieldVisit
15Nov.2014	1. Bio-fuel Industry 1. Introduction and advantage.2. Concept of Bio-fuel and its need.3 .Plant used for bio-fuel production.4.Biodiesel production from Caster.5.Commercial significance.	06	Tutorial – 3
Dec-2014	2. Bio-pesticide Industry 1. Concept of bio-control; Integrated Pest Management (I.P.M.).2.Importance of bio-pesticides..3. Types of bio-pesticides: Indiara ,Azadiractin . 4. Commercial significance.	06	
	3.Industrial Mycology 1. Introduction .2.Important genera of fungi used in industries and their products .3.Product and application of Trichoderma ,Penicillium ,Aspergillus and yeast .4. Commercialsignificance.	06	
Jan-2015.	4 .Bio-fertilizer Industry 1. Bio-fertilizer: Concept and need..2. Type of bio-fertilizer: Nitrogen fixing bio-Fertilizer; Rhizobium, Blue green algae .Anabaena associated with Azolla .Phosphate solubilizing bio-Fertilizer: Bacteria and fungi. 3. Commercial significance.	06	Tutorial – 4 & Field Visit
	5. Fruit Processing Industry 1. Fruit processing: Concept and need .2.Cold storage. 3. Types of fruit processing (canned fruit, dried fruit chips. Fruit pulp, squash, jam, jelly, pickle and ketchups).4.commercial significance.	06	
Feb 2015	6.Plant Pharmaceutical Industry 1. Concept and advantage..2. Type of pharmaceutical product: Churn, Asava and Arishta..3. Drug plant with reference to botanical source, active principles and medicinal use of Adathodazeylanica,Tinosporacordifolia and Asperagusracemosus. 4.Manufacture of Churn(Triphala churn) .Arishta(Ashokarishta).and Asava (Kumariasava)..5. Concept of nutraceuticals and cosmeceuticals. .6.Commercial significance of Amla and Aloe.	06	
Mar 2015	EXAM		