

DEPARTMENT OF BOTANY ACADEMIC PLAN 2022-2023

ODD SEMESTER

Week		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Name	Sem/ paper	"18/06/2022-19/06/2022"	20/06/2022-25/06/2022	27/06/2022-2/07/2022	4/7/2022-09/7/2022	11/7/2022-16/07/2022	18/07/2022-23/07/2022	25/07/2022-30/07/2022	1/8/2022-6/8/2022	8/08/2022-13/08/2022	17/08/2022-23/08/2022	24/08/2022-30/08/2022	05/09/2022-10/9/2022	12/9/2022-17/9/2022	09/09/2022-24/09/2022	26/09/2022-30/09/2022	
<i>Ms. Supriya Janabandhu</i>	Sem. I Paper I	General characters of bryophytes	Classification of Bryophytes	structure of Anthoceros ,systematic position	Reproduction of Anthoceros	Test for 10 Marks	General characters of Pteridophyte	Classification of Group Pteridophyte	Structure of Nephrolepis	Anatomy of Nephrolepis	sporangium in Nephrolepis	Gametophyte in Nephrolepis	Sexual reproduction in Nephrolepis	Schematic representation of Nephrolepis	Revision	Revision	
	Sem. III Paper II	primary growth in dicot stem and root	Normal secondary growth in dicot stem	sap wood & heart wood	Normal secondary growth in dicot stem	extrastelar activity in dicot root	Mechanical tissue system - inextensibility	Mechanical tissue system -inflexibility	Mechanical tissue system - incompressibility ,shearing stress	Adaptive features of Xerophyte	anatomical characters with example	Adaptive features of Hydrophyte	anatomical features Epiphyte	Timber industry	Revision	Final test	
	Sem V Paper II			General Characters of Musci	System position ,occurance and thallus structure Marchantia			Systematic position ,structure and reproduction of sphagnum	Contribution of Prof,Shivram Kashyap								
	Sem. V Paper 1	What is applied microbiology	Construction and working of fermenter			types of cultural system ,inoculum,harvesting, recovery ,production	production of antibiotic			Industrial production of Organic acid- Glutamic acid	Production of Vinegar						
	SEC PHT												Principle and different methods of preservation	methods of storage Preservation by low temp	Preservation by high temp ,chemicals		
	SEC LA												History,objectives, principle,categories of landscape design	material,locations	Enterance ,exit,garden wall,fencing,paving s,garden path		
<i>Dr. Meena Patankar</i>	Sem. I Paper I	Introduction	Principle and construction of Compound Microscope	Working of Compound Microscope	Colorimeter-Introduction	Principle and construction of Colorimeter	Working of Colorimeter	Principle and construction of pH meter	Working of pH meter	Principle and working of paper chromatography	Types of paper chromatography	Principle and working of TLC	Applications of paper chromatography and TLC	Revision	Revision	Revision	
	Sem. III Paper III	Aromatherapy-Definition ,Origin and History	Methods of extraction of essential oils	Methods of extraction contd	Storage and precautions for use of essential oils	Carrier oils - Almond , sesame , jojoba	Carrier oils -Olive ,Coconut	Blending of aroma oils with carrier oils	Contd- Blending of aroma oils with carrier oils	Healing properties of aroma oils	Entry route of aroma oils and methods of applications	Direct methods of application of aroma oils	Indirect methods of applications of essential oils	Revision	Revision	Revision	
	Sem III/EPIIISec 2	Standardization of drugs -Definition ,significance	Organoleptic characteristics ,Microscopic characteristics	Microscopic characteristics	Physical methods for detection of secondary metabolites	Physical methods for detection of secondary metabolites	Chemical methods for detection of secondary metabolites	Chemical methods for detection of secondary metabolites	Toxicological study of drug	Monograph of Syzgium aromaticum	Monograph of Strychnous nuxvomica	Monograph of Aloe vera	Unorganized drugs -Shilajit , Camphor ,guggul	Unorganized drug -katha ,Acacia gum	Revision	Revision	
	Sem V Paper I	Algae -Introduction	Systematic position, Occurrence, Thallus structure and Reproduction, ,Lifecycle of Chara		Methods of Algae – Collection, Preservation, Preparation of Herbarium Systematic position, Occurrence, Thallus structure of Ectocarpus		Reproduction of Ectocarpus Systematic position, Occurrence, Thallus structure and Reproduction , Lifecycle,Patterns of lifecycle in Algae		Waste water: Sources of waste water, Chemical and microbiological characteristics ,primary treatment		Secondary and tertiary treatment of water, Microbiology of Air- Microbial component of atmosphere		Aeromicrobiological techniques for microflora, Principles and methods of air sampling- Air sampler and Culture plate technique				
Sem V /Paper DSEC VI			Monographs of drugs turmeric rhizome,Tinospora stem		Symptoms, Causes and Plants used as traditional medicine for the treatment of- Anaemia,Diabetes		Monographs of drugs Arjuna (bark), Asparagus root		Monographs of drugs Datura (leaf), Flaxseed		Symptoms, Causes and Plants used as traditional medicine for the treatment of- Asthma , Jaundice and hypertension		Source,Composition and Therapeutic value of:Barley,Gram ,Pea ,amla ,Guava.				
<i>Dr. Ajit Katdare</i>	Sem I / Paper I / M II/1L/ Week	General characters of Fungi	Outline of classification of Fungi upto class	Structure of Rhizopus	Reproduction in Rhizopus	Economic importance of Fungi	Occurrence and types of Lichens	Thallus structure of Liches	Reproduction in Lichens	Mode of nutrition in Lichens	Ecological significance of Lichens	Economic importance of Lichens	Revision	Revision			
	Sem III / 2L/Week / Paper I / M II	Mycotoxins - Defination, source, toxicological study	Case study - Mucormycosis	Culture techniques in fungi	Culture techniques in fungi	Systematic position, structure of Albugo	Reproduction in Albugo	Life-cycle of Albugo	Systematic position, structure of Agaricus	L.S. of gill and clamp connections	Life-cycle of Agaricus	Powdery mildew disease	Ergot disease	Revision	Revision		
	Sem III/ Paper I/ M III	Evolution of sporophyte in Bryophyta	Evolution of sporophyte in Bryophyta	Systematic position and structure of Pellia	Anatomy of Pellia	Reproduction in Pellia	Life-cycle of Pellia	Systematic position and structure of Funaria	Anatomy of Funaria	Reproduction in Funaria	Life-cycle of Funaria	Ecological importance of Bryophytes	Economic importance of Bryophytes	Revision	Revision		

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	Sem V / 3L/Week / Paper II / M I	"General Characters of Basidiomycetes"	General Characters of Basidiomycetes	General Characters of Deuteromycetes	Systematic position & Vegetative structure of Saprolegnia	Reproduction & life cycle in Saprolegnia	Systematic position & Vegetative structure of Penicillium	Asexual reproduction in Penicillium	Sexual reproduction & life cycle in Penicillium	Systematic position & uredospores of Puccinia	Teleutospores & Basidiospores of Puccinia	Pycnidiospores, Aecidiospores & life cycle of Puccinia	Systematic position, vegetative structure of Fusarium	Reproduction in Fusarium	Revision	
	Sem V / Paper II / M II	Causative agent, symptoms, predisposing factors of Tikka disease	Disease cycle & control measures of Tikka disease	Causative agent, symptoms, predisposing factors of early Blight of potato	Disease cycle & control measures of early Blight of potato	Causative agent, symptoms, predisposing factors of late Blight of potato	Disease cycle & control measures of late Blight of potato	Causative agent, symptoms, predisposing factors of Smut of jowar	Disease cycle & control measures of Smut of jowar	Physical control methods of plant diseases	Chemical control methods of plant diseases	Biological control methods of plant diseases	Fungal enzymes	Utilization of nutrients by fungi	Utilization of nutrients by fungi	Revision
	Sem V / DSEC I/ M I	"Latex yielding plant rubber - Physical & chemical properties"	Types of rubber plants	Cultivation & processing of rubber plant	Marketing & uses of rubber	Pulp & paper industry - Introduction & raw materials	Manufacturing of pulp & paper from pulp	Types of paper	Paper industry in India	Cereales & Millets - Ragi	Cereales & Millets - Pearl Millet	Spices - Nutmeg	Spices - Black Cardamom	Revision		
Dr Veena Savvi	Sem. V Theory Core	P3U3- Chi- square	P3U3- Unpaired t	P4U1- Climate Change	P3U3 -Probability	P4U4- Arsenic Poisoning in W Bengal	Test for 10 marks - Biostats	P3U3- Regression	Test for 10 marks - Global Environmental Issues	P3U3- N BLAST, P BLAST	P4U1- Nuclear winter	P3U3- Organisation of database	P4U4- Industry plastic	P4U1- Bioleaching	Revision	
	Sem. V Theory Core	P3U3- Chi- square	P3U3- Unpaired t	P4U1- Climate Change	P3U3 -Probability	P4U1- Fluoride Poisoning in Punjab	P3U3- Regressio	P4U1- Rainbow valley, Love canal tragedy	P4U1- Bhopal Gas Tragedy, Brown haze	P3U3- X BLAST, Tx BLAST	P4U1- Industry - Power	P3U3- Retrieval of data	P4U4- Industry automobile	P4U4- Industry - Automobile	Revision	Final Test
	Sem. V Core Pract	Problems based on Chi-square	Problems based on t-test		Bioinformatics Revision	BLAST	BLAST			Retrieval of Data	Retrieval of Data					
Dr Veena Savvi	Sem. V Theory Core 2 L/week	Sec1U1- Maturity	Sec1U1- Maturity Index	Sec1U1- Maturity index	SEC 1U1 Test for 10 Marks	Sec1U1- Factors responsible for maturity and ripening	Sec1U1- Factors responsible for maturity and ripening	Sec1U1- Factors responsible for delay in maturity and ripening	Sec1U1- Harvest Methods	Sec1U1- Harvest Methods	Sec1U1- Harvest Methods	Sec1U1- Harvest Methods	Sec1U1- Harvest Methods	Sec1U1- Harvest Methods	Revision	Final Test
	Sem. V Theory Sec	Sec1U2- Landscape Gardening Computational modeling Introduction	Sec1U2 - Computational modeling Case Study Site survey	Sec1U2 - Computational modeling Case Study Design visualization	Sec1U2 - Computational modeling Case study formal informal	Sec1U2 - Computational modeling Case History	Sec1U2 - Computational modeling Case History	Sec1U2 - Computational modeling natural style	Sec1U2 - Computational modeling using space	Sec1U2 - Computational modeling Test for 10 Marks	Sec1U2 - Computational modeling Reorientation	Sec1U2 - Computational modeling AutoCad	Sec1U2 - Computational modeling AutoCad	Sec1U2 - Computational modeling AutoCad	Revision	Final Test
	Sem III Theory I L / week	P2U3- Photophysiology - introduction	P2U3- Photophysiology - pigment interaction	P3U2- Food Adulteration	P3U2- Natural Toxins in food	P2U3- Photophysiology - Reactions	P2U3- C3 Pathway	P3U2- Food Additives	P3U2- Food Additives	P2U3- Structure of starch and cellulose	P3U2- Food nutritional labelling	P2U3- Synthesis, Degradation of starch	P2U3- Structure, Synthesis, Degradation of cellulose	Test for 10 Marks	Revision	Final Test
	Sem III Theory 2 L / week	P2U3- Photophysiology pigment interaction	P3U2- Food Adulteration	P3U2- Food Detection of Adulterants	P3U2- Natural Toxins in food	P2U3- C3 Pathway	P2U3- C3 Pathway	Test for 10 marks	P2U3- CAM Pathway	P3U2- Food nutritional labelling	P3U2- Food nutritional labelling	P2U3- Synthesis, Degradation of starch	P3U2- Food legislation	P3U2- Food legislation	Revision	
	Sem I Theory 1 L / week	P2 U3 - Biostats Introduction	P2 U3 - Biostats Common Terms	P2 U3 - Biostats Common Terms	P2 U3 - Biostats Representation of Data	P2 U3 - Biostats Representation of Data	P2 U3 - Biostats Representation of Data	P2 U3 - Biostats Representation of Data , Test	P2 U3 - Biostats Central Tendency	P2 U3 - Biostats Central Tendency	P2 U3 - Biostats Central Tendency	P2 U3 - Biostats Dispersion	P2 U3 - Biostats Dispersion	P2 U3 - Biostats Dispersion	Revision	
Dr.Ketan Thatte	Sem. I Theory 1 Lec/ week	ECC 2 M2- Introduction to biomolecules- Water	ECC 2 M2- Introduction to biomolecules- Water	Carbohydrates	Carbohydrates	Proteins	Proteins	Lipids	Lipids	ECC 2 M2- Mechanism of action	Enzyme classification	Inhibition and its types	ECC 2 M2- Plant growth regulators	ECC 2 M2- Applications of PGR's	Revision	Revision
	Sem III Theory / EP III / Sec I 1 Lec/	Non- alcoholic beverages- coffee	Alcoholic beverages- Wine	Alcoholic beverages- Wine	SCP using algae	SCP using fungi	SCP using fungi	Introduction of mushroom industry	Nutritional and Medicinal significance of mushroom	Nutritional and Medicinal significance of mushroom	Cultivation of mushroom	Cultivation of mushroom	Economics of mushroom industry			
	Sem III Theory / EP III / Sec II & Sec I	Pharmacognosy- definition and scope	Pharmacopoea- introduction and types	Primary metabolites	Primary metabolites	Secondary metabolites	Secondary metabolites	Herbal medicinal products	Source of herb selection and authentication	Patent and IPR	Patent and IPR	Case study- Curcuma	Herbal industry- scope and future			
	Sem V Theory / 2 Lec per week	DNA Transformation	Mutations	Mutations	Mutagens	Cell division & Cell cycle	Mechanism of crossing over	Mechanism of crossing over	Tetrad analysis in neurospora	Tetrad analysis in neurospora	Chromosomal aberrations	Mutation in cancer	Sex determination in higher plants	Revision	Revision	
	Sem V DSEC- I Theory/ 2 Lec per week	Introduction & Concept of SSI	Characteristics and Objectives of SSI	Contribution of MSME & KVIC in SSI	Protein bar	Proteinase- extraction, purification and applications	Lipase- extraction, purification and applications	Herbal shampoo	Herbal anti-aging cream	Extraction and applications of natural pigments	Plants used in homeopathy	Preparation of triphala churna and Shatavari kalp	Preparation of chyavanprash	Revision	Revision	

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	Sem VI/ paper1			Microsporogenesis- structure of anther,microspoge nesis,role of tapetum,developm ent of male gametophyte	Megasporogenesis- types of ovules,megasporo genesis,organisati on of female gametophyte					Fertilization,Double fertilization,develo pment of embryo							
	Sem VI/ paper 4 I					definition,objective s,scope of forest mensuration	Mesurement of individual tree parameter				tree diameter ,girth,instruments used	mesurement of height ,instruments and methods					
	Sem VI/SECI	Spiritual farming,philosophy ,principle and technique	Green revolution,four wheels of SPNF	preparation of jeevaamrut,bejaam rut	benefits of Jeevaamrita	Mulching and Waaphasa											
Dr. Meena Patankar	Sem II/Paper ECC2	Introduction, Scope of algae and aromatic plants in perfumery and cosmetic industry.	Essential oils used in perfumery: Cinnamon oil,	Essential oil- Sandalwood	Vegetable oils and fats used in cosmetics	Kokum butter	Natural dyes in Cosmeceuticals- Coffee, Teak leaf, Parijat	Nutraceutical product: Khakhra- millets	Nutraceutical product: Dry chutney powder- Sesame and Curry leaves	Cosmeceutical product: Skin care- Antiaging cream	Cosmeceutical products: Hair care- Shampoo	Cosmeceutical products: Hair care- Conditioner	Revision				
	Sem IV/ Paper 1	Viruses -general characters ,size and shape	Ultrastructure of virus,classification of viruses	Multiplication of bacteriophage T4	Significance (positive and negative aspects)	Culture media preperation	Contnd-Culture media preperation	Pure culture methods	Contnd-Pure culture methods	Types of water	factors affecting growth of bacteria in water	Microbiological analysis of water	Contnd- Microbiological analysis of water				
	Sem IV/ Paper 2	Microscopy - introduction	phase contrast microscopy	Fluorescence microscopy	Column chromatography	Affinity	Ion exchange	gel exclusion	Electrophoresis - introduction	AGE	Contnd-AGE	Page	Contnd-PAGE				
	Sem. VI Theory C3 M2 1L/ WK	Introduction to pharmacognosy	Volatile oils	Flavanoids	Glycosides	Alkaloids Test	Tannins , phenolic acids	Taxonomy and morphology of crude drugs	Classification of drugs based on chemical and pharmacological characters	collection and postharvest management of drugs	collection and postharvest management of drugs Test	Drug adulteration	Drug adulteration Test				
Dr. Ajit Katarde	Sem VI / Paper III / M III	"Classes of seeds Breeder and Foundation"	"Registered and certified seeds"	"Seed quality Physical"	Genetic and physiological	Seed health	Seed Storage	Seed Bank	"Seed drying Moisture elimination"	Natural and artificial drying	Seed processing requirements	Seed processin techniques	"Seed act and rules Seed policy 2002"	revision			
	Sem VI / DSEC II / M I	"Floriculture- Definition Scope, Future"	"Present status prospects, area"	Production and Export	"Cultivation of Rose"	"Cultivation of Rose"	"Cultivation of Chrysanthemum"	"Cultivation of Chrysanthemum"	Cultivation of Jasmine	Cultivation of Jasmine	"Export quality managment"	Opportunities in marketing	Challenges in marketing	revision			
	Sem VI /SEC I / M II	Natural pesticides	Insect and pest management	Dashparni arka and Neemastra	Bramhastra and Agniastra	Root knot	Root rot	Plant tonic	Plant tonic	Beej Sanskar	Case Stydy	Case Stydy	Case Study	revision			
	Sem VI/SEC I/Entrepr neurshi	Concept of entrepreneur, entrepreneurship	Characteristics and functions of an entrepreneur	Entrepreneurial behaviour - concept and factors affecting	Factors affecting entrepreneurial behaviour of farmers	Agri- entrepreneurship - concept and need	Scope of Agri- entrepreneurship	Classification - Business,Trading and Industrial	Classification - Corporate and Agriculture	Marketing research- Business micro and macroenvironment	Concept of marketing, market asessment	Elements of marketing mix	Advertising - meaning,definition, need,objectives,	Functions,types,lai outs or forms of advertisement	Advertising campgain,most common reasons for buying	Revision	
	Sem VI /5L/Wee k/ Paper I / M II	"Gnetum- Systematic position, occurance, morphology"	"Anatomy of young stem and secondary growth in stem"	"Anatomy of root and leaf"	Reproduction in Gnetum	"Ephedra - Systematic position, occurance, morphology"	"Anatomy of young stem and secondary growth in stem"	"Anatomy of root and leaf"	"Reproduction in Gnetum"	"Fossil Gymnosperm Lyginopteris"	"Fossil Gymnosperm Pentoxylon"	"Distribution of gymnosperms in India"	"Distribution of gymnosperms in India"	Revision			
	Sem IV / Paper I / M III/1L/W eek	D.D. Pant's Classification of Gymnosperms upto order	D.D. Pant's Classification of Gymnosperms upto order	Systematic position and structure of Pinus	Anatomy of Pinus	Anatomy of Pinus	Reproduction in Pinus	Reproduction in Pinus	Life cycle of Pinus	Geological time scale	Geological time scale	Fossil - Rhynia	Fossil - Calamites	Revision			
Dr Veena Savvi	Sem VI Theory Core	P1-U1 Devision Pterophyta	P3-U1 Transpiration Introduction, Stomata	P1-U1 Lycopodium	P1-U1 Lycopodium	P3-U1 Factors affecting Transpiration	P3-U1 Factors affecting transpiration, Significance	P1-U1 Adiantum	P3-U1 Respiration Introduction	P3-U1 TCA cycle	P1-U1 Calamites	P1-U1 Lepidodnedron, Birbal Sahani	P3-U1 Transpiration - Guttation - Repsiration Comparison				
	Sem. VI Theory	P1-U1 Devision Pterophyta	P3-U1 Guttation	P1-U1 Lycopodium	P3-U1 Factors affecting Transpiration	P3-U1 Factors affecting Transpiration	P1-U1 Adiantum	P1-U1 Adiantum	P3-U1 Glycolysis	P1-U1 Calamites	P1-U1 Lepidodendon	P3-U1 ATP Synthesis , Energetics	P3-U1 Transpiration - Guttation - Repsiration	Revision			
	Sem. VI Theory DSEC	DSEC PVla-U2 Intro Rec DNA Tech	DSEC PVla-U2 Ti plasmid	DSEC PVla-U2 Ti plasmid	DSEC PVla-U2 Ti plasmid	DSEC PVla-U2 Ti plasmid	DSEC2-U2 Methods of gene transfer	DSEC2-U2 Methods of gene transfer	DSEC2-U2 Methods of gene transfer	DSEC2-U2 Methods of gene transfer	DSEC2-U2 PTC for Flowering plants	DSEC PVla-U2 PTC in Agriculture	DSEC2-U2 Revision	Revision			
	Sem. VI Theory SEC-I	Sec 1-U2 Entrepreneurship Intro	Sec 1-U2 First Generation entrepreneur	Sec 1-U2 Women entrepreneure Cases	Sec 1-U2 Women entrepreneure Cases	Sec 1-U2 Entrepreneurship in globalized Economy	Sec 1-U2 Starting / Buying a new business	Sec 1-U2 Ventrue feasibility	Sec 1-U2 Ventrue feasibility	Sec 1-U2 Business strategy	Sec 1-U2 Practices Policies	Sec 1-U2 Practices Policies	Revision	Revision			

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	Sem IV Theory	P1-U2 Calamophyta	P2-U2 Normal distribution	P2-U2 Normal distribution	P1-U2 Equisetum	P1-U2 Equisetum	P2-U2 Hypothesis testing	P2-U2 Chi-square	P1-U2 types of stele	P2-U2 Correlation	P2-U2 Correlation	P1-U2 Evolution of sorus	P1-U2 Revision	Revision			
	Sem II Theory 1 L / week	P2-U1 Nutraceuticals Introduction	P2-U1 Nutraceuticals Introduction	P2-U1 Probiotics, Probiotics, Synbiotics	P2-U1 Probiotics, Probiotics, Synbiotics	P2-U1 Functional food and Phytonutraceuticals	P2-U1 Functional food and Phytonutraceuticals	P2-U1 Cosmeceuticals Introduction	P2-U1 Plants for skin care	P2-U1 Plants for Hair care	P2-U1 Honey Introduction	P2-U1 Honey for skin care	Revision	Revision			
Dr Ketan Thatte	Sem II EP II Sec I & Sec II	DNA Structure	Chromosome packaging	Chromosome structure	Prokaryotic DNA Replication	Prokaryotic DNA Replication	Prokaryotic DNA Replication	Eularyotic DNA Replication	Physical basis of heredity	Cell Cycle and Mitosis	Meiosis	Meiosis	Chromosomal basis of inheritance	Sex determination	Revision	Revision	
	Sem IV Course II Module II	Concept, Principle of SAP	Concept, Principle of SAP	Concept, Principle of SAP	Sustainable pest management	Sustainable pest management	Biochemistry of composting	Biochemistry of composting	Biochemistry of composting	Water recycle practices- rain water	Water recycle practices- grey water	Water recycle practices- grey water	irrigation technology- case study	irrigation technology- case study			
	Sem IV Course III Module III	Green House - Layout & Construction	Green House - Layout & Construction	Green House - Layout & Construction	Types of green house	Types of green house	Estimated construction cost	Estimated construction cost	labor requirement	Automated green house	Automated green house						
	Sem VI DSEC- I Module I	PTC- History and introduction	Current status of scope of green house	PTC Lab Layout and Requirements	PTC Lab Layout and Requirements	Culture media and types	Callus culture	Applications of callus culture	Organ culture	Organ culture	Organogenesis	Somatic embryogenesis & Synthetic seeds	Plant regeneration and Hardening				
	Sem VI SEC-I Module III	Project management	Project management	Problems of entrepreneurs	Government assistance and policies	Government assistance and policies	Entrepreneurial failure	Entrepreneurial failure	Types of financial assistance	Types of financial assistance	Venture capital financing	Venture capital financing	Venture capital financing				
Ms Vaishali Pingale	Sem II/ Paper I-U II	Introduction of Taxonomy and Bentham and Hooker classification system	General characteristic of Plants for classification	Study of the following families according to Bentham and Hooker system of classification- Malvaceae	Study of the following families according to Bentham and Hooker system of classification- Fabaceae	Study of the following families according to Bentham and Hooker system of classification- Papilionaceae (Fabaceae)	Study of the following families according to Bentham and Hooker system of classification- Caesalpiniaceae	Study of the following families according to Bentham and Hooker system of classification- Mimosaceae	Study of the following families according to Bentham and Hooker system of classification- Mimosaceae	"Study of the following families according to Bentham and Hooker system of classification- Rubiaceae"	Study of the following families according to Bentham and Hooker system of classification- Apocynaceae		"Study of the following families according to Bentham and Hooker system of classification- Amaryllidaceae"	Revision	Revision	Revision	
	Sem II/ Paper II- U III	Definition, Branches, Importance and Scope of horticulture	Garden operations Introductions	Garden operation- Soil types	Garden operation- Soil preparation	Garden operation- Digging and sowing	Garden operation- Watering	garden operation- Weed management	Propagation Practices- Method of propagation by Seed	Propagation Practices- cutting	Propagation Practices- Layering	Propagation Practices- Budding	Propagation Practices- Grafting	Revision	Revision	Revision	
	Sem II/ ECC II-U I	Introduction, Concept, Definition	Levels of Biodiversity	Biodiversity Hotspots- Characteristic flora and fauna	Status of Biodiversity- Centers- Ramsar Wetland, Species Diversity	Threats to Biodiversity- Loss of Biodiversity, Genetic variation, Ecological variations, Invasive species, Man-Animal Conflicts	Significance of Biodiversity	Revision									
	Sem IV/Paper III/ UIII	Definition of Forest Utilization	Utilization of Major Forest Products	Utilization Non-Timber Forest Products	Labor organization and Modes of sale	Labor organization and Modes of sale	Revision										
	Sem VI/ Paper I U III	Bentham and Hooker's system of classification for flowering plants upto family- Magnoliaceae	Bentham and Hooker's system of classification for flowering plants upto family- Capparidaceae	Bentham and Hooker's system of classification for flowering plants upto family- Cucurbitaceae	Bentham and Hooker's system of classification for flowering plants upto family- Umbelliferae	Bentham and Hooker's system of classification for flowering plants upto family- Asclepiadaceae	Bentham and Hooker's system of classification for flowering plants upto family- Lamiaceae	Bentham and Hooker's system of classification for flowering plants upto family- Convolvulaceae	Bentham and Hooker's system of classification for flowering plants upto family- Amaranthaceae	Bentham and Hooker's system of classification for flowering plants upto family- Palmaceae	Tools of Angiosperm Taxonomy- Library, journals	Tools of Angiosperm Taxonomy- Periodicals, Floras	Tools of Angiosperm Taxonomy- Monographs	Revision	Revision	Revision	
	Sem VI/ Paper II U II	Introduction of Palynology	Pollen and Spore morphology - Size and Shape, Polarity	Pollen and spore morphology- Apertures (NPC), Exine stratification	Exine excrescences, Construction of palynogram		Geographical and floral origin of honey	Chemical analysis, Physical adulteration	Honey as environmental monitors	Tests for pollen viability	Pollen viability and storage	Causes of loss of pollen viability	Pollen storage	Revision	Revision	Revision	
	DSEC I Ayurvedic Botany	Introduction of Ethnobotany as interdisciplinary science	History and use of medicinal herbs	History and use of medicinal herbs		Role of ethno medico botanical survey in progress of Ayurveda	Applications of plants used by tribals for certain diseases- Jaundice	Applications of plants used by tribals for certain diseases- skin diseases	Applications of plants used by tribals for certain diseases- diarrhoea	Applications of plants used by tribals for certain diseases- dysentery	Traditional knowledge	Legal aspects to protect traditional knowledge		Revision	Revision	Revision	
	DSEC II Floriculture	Breeding method; Introduction	selection, Domestication	Production of hybrids, Incompatibility problems	Production of hybrids	Production of hybrids, Incompatibility problems	Seed production of flower crops	Breeding constraints and Achievements	Breeding constraints and Achievements (Chrysanthemum)	Breeding constraints and Achievements (Chrysanthemum)	Flower breeding for the global market.	Flower breeding for the global market.		Revision	Revision	Revision	
	DSEC II Floriculture M3	Cut Flowers: Scope, Global Scenario	Cut Flower Standards, Grades, Harvest indices	Production of Dry Flowers: Tools, Materials and Basic Technique	Basic techniques and drying methods	Drying methods for flowers	"Maintenance of Flower shape, Procedure for embedding Pot-Pourri"	Dry Flowers; Principle and Techniques in dry flower making	Drying, Bleaching, Dyeing, Embedding, Pressing, Accessories	Designer arrangements; Dry flower buckets		"Bouquets, Wall hangings, Greeting cards"	"Bouquets, Wall hangings, Greeting cards"	Revision	Revision	Test	
	Sem IV/ Paper III, UI	Concept of agroforestry	Concept of agroforestry	Classification of agroforestry systems	Classification of agroforestry systems	Diagnosis and design of agroforestry	Diagnosis and design of agroforestry	Diagnosis and design of agroforestry	Needs of agroforestry	Needs of agroforestry	Field experiments in agroforestry	Field experiments in agroforestry	Field experiments in agroforestry	Opportunity and Challenges	Opportunity and Challenges	Revision	

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<i>Dr. Shilpa Nag</i>	Sem IV/ PaperIII, UII	Terrestrial Ecosystem Management-Restoration Ecology,	Terrestrial Ecosystem Management-Restoration Ecology,	Invasive Species Management	Aquatic Ecosystem Management-Wetland Conservation,	Aquatic Ecosystem Management-Wetland Conservation,	Environmental Flows	Environmental Flows	Agro-ecosystem Management- Crop Management, Pastureland Management, Plantation Management	Agro-ecosystem Management- Crop Management, Pastureland Management, Plantation Management	Agro-ecosystem Management- Crop Management, Pastureland Management, Plantation Management	Urban Ecology-Urban Greening	Urban Ecology-Urban Greening	Living Shorelines	Living Shorelines	Revision	
	Sem VI/Paper IV, MII	Forest protection	Importance, Rights, Offences, Defenses	Importance, Rights, Offences, Defenses	Forest resource monitoring	Forest cover	Biodiversity assessment, Forest vegetation mapping	Biodiversity assessment, Forest vegetation mapping	Application of remote sensing in forestry;	Application of remote sensing in forestry;	Application of remote sensing in forestry;	Mangrove forests in India	Mangrove forests in India	Role of people biodiversity register (PBR)	Role of people biodiversity register (PBR)	Revision	
	Sem VI CC IV	Forest Economics: Introduction	Forest Economics: Introduction	Economics of Forest Land	Economics of Forest Land	Economics of Forest Land	Test of 10 Marks	Economics of Timber production	Economics of Timber production	Economics of Timber production	Economics of Timber production	Test of 10 Marks	Land economic and rent value	Land economic and rent value	Land economic and rent value	Revision	Test
	Sem VI/DSEC-GHT, MII	Land Preparation	Land Preparation	Land and Seed bed preparation, Sowing, Planting seedlings	Land and Seed bed preparation, Sowing, Planting seedlings	Land and Seed bed preparation, Sowing, Planting seedlings	Irrigation Techniques	Irrigation Techniques	Irrigation and Fertigation	Microclimate Control	Cooling, Insulation, Humidity control, Ventilation	Cooling, Insulation, Humidity control, Ventilation	Cooling, Insulation, Humidity control, Ventilation	Cooling, Insulation, Humidity control, Ventilation	Care and Maintenance	Care and Maintenance	Revision
	Sem VI, DSEC-I	Cultivation of Green House Crops	Cultivation of Green House Crops	Capsicum Cultivation	Capsicum Cultivation	Tomato Cultivation	Tomato Cultivation	Capsicum and Tomato Pest	Capsicum and Tomato Pest	Diseases of Green House Plants	Diseases of Green House Plants	Post-harvest management practices	Post-harvest management practices	Post-harvest management practices	Revision	Revision	