

DEPARTMENT OF BOTANY ACADEMIC PLAN 2021-2022

ODD SEMESTER

Week		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Name	Sem/ paper	14/06/2021- 19/06/2021	21/06/2021- 26/06/2021	28/06/2021- 3/7/2021	5/7/2021-10/7/2021	12/7/2021- 17/07/2021	19/07/2021- 24/07/2021	26/07/2021- 31/07/2021	2/8/2021- 7/8/2021	9/8/2021- 14/08/2021	16/08/2021- 21/08/2021	23/08/2021- 28/08/2021	30/08/2021 4/9/2021	6/9/2021-12/9/2021	13/09/2021- 18/09/2021	20/09/2021- 26/09/2021
<i>Ms. Supriya. Janabandhu</i>	Sem. I Theory 1 L/ wk	General characters of bryophytes	Classification of Bryophytes	Test for 10 marks	structure of Anthoceros	sexual reproduction in Anthoceros	sporophyte of Anthoceros	Test for 10 Marks	Test for 10 marks	Classification of pteridophytes	Test for 10 marks	sporophyte of Nephrolepis	anatomy of Nephrolepis	Gametophyte of Nephrolepis	Revision	Final test
	Sem. III Theory 1 L/wk	Bridge course lecture -Basics of anatomy	Normal secondary growth in dicot stem	Normal secondary growth in dicot root	Test for 10 marks	Mechanical tissue system	inextensibility	inflexibility	incompressibility ,shearing stress	Test & assignment	Defence Mechanism in plants	MCQ test	Stelar evolution	Types of stele	Revision	Final test
	Sem III Pract.			Study of Hills reaction	Identification of plant based products	Study of normal secondary growth in dicot root and stem	Study of Mechanical tissue system	Study of Defence mechanism	Study of types of stele							
	Sem. V Theory 4 L/wk	P1-Industrial fermentation construction and working ,types of commonly used culture system	P1-Media,Inoculum,harvesting,Recovery, production Production of Glutamic acid	test	P1-Industrial production of Penicillium ,Vinegar	P2-General characteristics of division Musci Contribution of Prof. Kashyap	Test	Structure & reproduction - Marchantia	Structure & reproduction Of Sphagnum	History ,objectives,principle categories of landscape design	Material used for landscape design Garden location	entrance and exit test	methods of preservation storage of fresh produce	preservation by low temp ,high temp	methods of storage preservation by chemicals	final test
	Sem V Pract		Air sampler			Life cycle of Marchantia			life cycle of Sphagnum	project-sec			sec-mini project	start proposal		
<i>Ms. Uzma. Shaikh</i>	Sem. I Theory CC1			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	
	Sem. III Theory 1L/wk CC			General characters of Ascomycetes	General characters of Ascomycetes	Structure of Aspergillus	Life cycle and systematic position of Aspergillus	Life cycle and systematic position of Aspergillus	Symptoms and Causal organism of Powdery mildew	Disease cycle of Powdery mildew	Control measures of powdery mildew	Symptoms and Causal organism of Ergot	Disease cycle of Ergot	Control measures of Ergot	Revision	
	Sem. III Theory 1L/wk EC P3/U4			M1- General characters of Basidiomycetes	M1- General characters of Deuteromycetes	M1- Structure, life cycle and systematic position of Saprolegnia	M1- Structure, life cycle and systematic position of Penicillium	M1- Structure, life cycle and systematic position of Puccinia	M1- Structure, life cycle and systematic position of Fusarium	M2- Tikka disease of groundnut	M2- Early blight of potato	M2-Late blight of potato	M2- Smut of jowar	M2- Physical, chemical and biological control measures of plant disease	M2- Fungal enzymes and utilization of nutrients	
	Sem V Pract			Botanical source and cultivation of latex yielding plant- Rubber	Uses and classification of rubber, Rubber industry	Source and processing of Pulp in paper industry	Uses and classification of paper	Source and cultivation of Ragi	Health benefits and uses of Ragi	Source and cultivation of Pearl millet	Health benefits and uses of Pearl millet	Source and morphology of Nutmeg	Cultivation and uses of Nutmeg	Source and morphology of Black cardamom	Cultivation and uses of Black cardamom	
<i>Dr. Meena patankar</i>	Sem. III Theory 1L/Wk	Viruses - General characters, size and shape,	ultrastructure, classification (Plant, Animal and Bacterial viruses),	Multiplication of bacteriophage T4	significance of viruses (Positive and Negative aspect).	Culture media preparation	Culture media preparation	pure culture methods	pure culture methods	Basic principles of staining	Basic principles of staining	Microbiology of water.	Microbiology of water.	Revision		
	Sem. V Theory 4L/Wk	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 of Polysiphonia ,	Patterns of lifecycle in Algae Test 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	Test 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	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 Test		
	Sem. I Theory	Introduction	Principle , construction of compound microscope	Working of compound microscope	Principle and construction of colorimeter	Working of colorimeter	Test	Principle and construction of pH meter	Working of pH meter	Test	Principle and working of paper chromatography	Principle and working of paper chromatography	Principle and working of TLC	Test		
	Sem I Pract															
<i>Dr. Veena Salvi</i>	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	Final Test
	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					

Week		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Dr. Veena Savvi	Sem. V Theory SEC	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 and Photorespiration	P2U3- Photophysiology and Photorespiration	P2U3- Photophysiology and Photorespiration	Test for 10 Marks	P2U3- Photophysiology and Photorespiration	P2U3- C3 Pathway	P2U3- C3 Pathway	P2U3- Structure, Synthesis, Degradation of starch	P2U3- Structure, Synthesis, Degradation of cellulose	P2U3- Structure, Synthesis, Degradation of cellulose	P2U3- CAM Pathway	P2U3- Photorespiration	P2U3- Structure, Synthesis, Degradation of starch	Revision	Final Test	
	Sem II Pract		Ultrastructure of plant and animal viruses	Effects of plant extract	Range of thallus in algae	Life cycle of Oscillatoria, Application of algae	Life cycle of , Diatoms and Sargassum	Life cycle of Aspergillus, Fungal diseases	Agaricus, Source of Fibre	Medicinal plants, Plants based products	Biofertilizer, Edible Poisonous Mushrooms	Mushroom cultivation					
	Sem. I Theory 1 Lec/ week	P2 U3 - Biostats Introduction	P2 U3 - Biostats Common Terms	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 , Test	P2 U3 - Biostats Central Tendenc	P2 U3 - Biostats Central Tendenc	P2 U3 - Biostats Central Tendenc	P2 U3 - Biostats Dispersion	P2 U3 - Biostats Dispersion	P2 U3 - Biostats Dispersion	Revision	Final Test	
Dr. Ketan Thatte	Sem. I Theory 1 Lec/ week	ECC 2 M2- Introduction to biomolecules- Water	ECC 2 M2- Introduction to biomolecules- Water	ECC 2 M2- Introduction to biomolecules- Water	ECC 2 M2- Proteins	ECC 2 M2- Lipids	ECC 2 M2- Lipids	Test of 10 Marks	ECC 2 M2- Enzymes- Classification	ECC 2 M2- Mechanism of action	ECC 2 M2- Inhibition and its types	Test of 10 Marks	ECC 2 M2- Plant growth regulators	ECC 2 M2- Applications of PGR's	Test of 10 Marks	Revision	
	Sem. III Theory 1 Lec/ week	CC3 M1- Basic Principle, working and applications of pH meter	CC3 M1- Basic Principle, working and applications of pH meter	CC3 M1- Basic Principle, working and applications of colorimet	CC3 M1- Basic Principle, working and applications of colorimet	Test of 10 Marks	CC3 M1- Chromatography- introduction, Principle	CC3 M1- Types of Chromatography	CC3 M1- Types of Chromatography	CC3 M1- Thin Layer Chromatography	CC3 M1- Thin Layer Chromatography	Test of 10 Marks	CC3 M1- Column Chromatography	CC3 M1- Column Chromatography	Revision	Test of 10 Marks	
	Sem. V Theory 2 Lec/ week	Bridge Course Cell Division	CC3 M1- Mechanism of crossing over and linkage	CC3 M1- Linkage	Test of 10 Marks	CC3 M1- Tetrad analysis in Neurospora	CC3 M1- Tetrad analysis in Neurospora	CC3 M2- DNA Transformation	CC3 M2- Mutation	CC3 M2- Mutation	Test of 10 Marks	CC3 M1- Sex Determination in Higher plants	CC3 M2- Mutagens	CC3 M1- Chromosomal aberrations	CC3 M2- Mutations in Cancer	Test of 10 Marks	
	Sem. V DSEC I Theory 2 Lec/ Week	DSEC I M-1 Scope, Role and Importance of Small Scale Industry	DSEC I M-1 Khadi and Village Industry Commission, Contribution of MSME	DSEC I M-1 Nutraceutical products: Protein bar using natural products Test of 10 Marks	DSEC I M-2 purification and applications of Proteinase in industry	DSEC I M-2 extraction, purification and applications of Lipase in industry	DSEC I M-2 Cosmeceuticals: Shampoo	DSEC I M-2 Cosmeceuticals: Anti-aging cream	Test of 10 Marks	DSEC I M-1 Source, Extraction and Applications of edible pigments- Beetroot, Red cabbage, Broccoli, Carrot	DSEC I M-1 Plants used in homeopathic drugs – Calendula- skin infection, Argemon- rheumatism, Atropa- fever and headache, Centella- wound healing, Cinchona- malaria	DSEC I M-1 Plants used in homeopathic drugs – Calendula- skin infection, Argemon- rheumatism, Atropa- fever and headache, Centella- wound healing, Cinchona- malaria	DSEC I M-2 Preparation of pharmaceuticals: Chyavanprash	Test of 10 Marks	Revision		
Ms. Vaishali Pingle	Sem I Theory 2L/W CC1 M1	Introduction and Morphology of bacteria	Morphology and Classification of bacteria	Reproduction in bacteria	Reproduction in bacteria	Test	Economic importance of bacteria	Introduction of Algae with general characteristics	outline of classification of Algae upto class	Test	Structure, and reproduction of Cosmarium	Structure, and reproduction of Cosmarium.	Economic importance of algae	Test	Revision	Test	
	Sem. I Theory ECC	Introduction of Microtechnique	Concentration measures	Staining Technique	Principle of Staining	Test	Mounting Media	Collection of plant material: Storage during transport	Dehydration processes with reference to plant materials	Sectioning: Hand cut Section (Double Staining), Maceration	Test	Serial Section, Permanent Section	Squash - Spread Preparatio	Test	Revision	Test	
	Sem. III Theory 2L/W CC II	P2M2- Introduction of Economic botany	P2M2- study of fiber Cotton	P2M2- Study of fiber- Jute	P2M2- Study of fiber - Coir	Test	P2M2- Medicinal plant Ashwagandha	P2M2- Medicinal plant - Adulsa	P2M2- Plant based products Tannins & Dyes	P2M2 - Plant based products- Tannins & Dyes	P2M2 - Plant based products- Tannins & Dyes	Test	P2M2- Starch yielding plant- Elephant foot yam	P2M2- Starch yielding plant- Ginger	Revision	Test	
	Sem III Theory CC III	P3M2- Introduction pharmacognosy and medicinal Botany	P3M2- Pharmacognosy- Definition and scope.	P3M2- Pharmacopoeia- Introduction	P3M2- Elementary knowledge of primary metabolites.	Test	P3M2- Elementary knowledge of secondary metabolites.	P3M2- Primary analysis of crude drug obtained from leaves	P3M2- Primary analysis of crude drug obtained from bark.	P3M2- MEDICINAL BOTANY- Syzygium aromaticum (Clove bud)	P3M2- Medicinal Botany- Strychnos nux-vomica (seed)	Test	P3M2- Medicinal Botany- Aloe vera (leaf)	P3M2- Medicinal Botany	Revision	Test	
	Sem. V 4L/W DSEC 1 M3	Introduction of nanotechnology and IPR	Nanotechnology: Source, Processing	Uses of Nanomedicine	Applications of nanotechnology in Agriculture	Applications of nanotechnology in Research	Test	IPR, Concept of copyright	IPR- Trademark and trade secret	IPR- patents	Test	Plant Breeder's and Farmer's rights	Plant Breeder's and Farmer's rights	Test	Revision	Test	
Sem V DSEC 1 M2 Theory	Non-alcoholic beverages	Cultivation of Tea	Processing of Tea	Benefits of Green tea	Test	Perfume producing plants- Rose	Perfume producing plants- Lemongrass	Perfume producing plants- Jasmine	Perfume producing plants- Lavender	Test	Classification of oils	Plants producing edible oil	Cultivation and extraction of Olive Oil	Cultivation and extraction of Sunflower Oil	Test		

Week		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Sem V DSEC 1 M3 Theory	Introduction of Superfood	Plants as source of protein -Soybean	Sugar and sugar products	Cultivation of sugarcane	manufacturing of sugar	Test	By-products of sugar industry	Starch and starch product	Starch and starch product- Chestnut	Test	Nutritional value of Super food	Broccoli, Oats	Chia seeds, Edible sea-weeds	Revision	Test
	Sem V DSEC 2 M3 Theory	Introduction of Biodiversity and IUCN	Rare and endangered medicinal plants of India.	Rare and endangered medicinal plants of India.	Test	Biodiversity laws in India and conventio	Biodiversity laws in India and conventio	Economic value of Biodiversity	Trade, restrictions,economic	Test	Centres for medicinal plants conservation in India	CDRI,TKDL	FRLHT, TBGRI	TAMPCOL	TAMPCOL	Test
Dr. Shilpa Nag	Sem I- 2- ECC		Excel: Workbook and Worksheets	Basic mathematical operations	Creating Tables	Creating Tables	Test of 10 Marks	Creating Graphs	Creating Graphs	Functions in EXCEL: Mathematical functions	Test of 10 Marks	Logical Functions	Statistical Functions in EXCEL	Statistical Functions in EXCEL	LOOKUP	Test of 10 Marks
	2-ECC		Fundamentals of Biostatistics	Fundamentals of Biostatistics	Sampling	Test of 10 Marks	Data Organisation- Tabular, Graphical	Central Tendency, Dispersion	Central Tendency, Dispersion	Test of 10 Marks	Microscopy: Principle of Light Microscopy	Types of Microscopes	Types of Microscopes	Handling and Troubleshooting	Applications of Light Microscopy	Test of 10 Marks
	Sem. III- 2 L/ week Theory CC		Range of thallus in algae	Range of thallus in algae	Range of thallus in algae	Test of 10 Marks	Origin and Evolution of sex in Algae	Origin and Evolution of sex in Algae	Structure, life cycle and systematic position of Diatoms	Structure, life cycle and systematic position of Diatoms	Structure, life cycle and systematic position of Diatoms	Test of 10 Marks	Applications- Role of Algae (Agriculture and biofuel)	Applications- Role of Algae (Agriculture and biofuel)	Revision	Test of 10 Marks
	Sem. III Theory EC Unit.III		Study of enzymes- cellulases- their plant sources and their use in industry	Study of enzymes- cellulases- their plant sources and their use in industry	Study of enzymes- cellulases- their plant sources and their use in industry	Study of enzymes- cellulases- their plant sources and their use in industry	Test of 10 Marks	Beverages- Alcoholic- source, processing, storage	Beverages- Alcoholic- source, processing, storage	Beverages- Alcoholic- source, processing, storage	Preservation of Coffee and Wine	Test of 10 Marks	Single Cell Protein from Algae and Fungi	Mushroom Industry Cultivation and its commercial significanc	Mushroom Industry Cultivation and its commercial significanc	Test of 10 Marks
	Sem. V 3 L/ week Theory		Toxic agents introduction	Classification of toxicants	Pesticides, Fertilizers	Chemical carcinogens	Test of 10 Marks	Introduction to Risk management	Basic steps in risk assessment	Exposure assessment	Test of 10 Marks	hazard identification	Dose response assessment	Risk characterization/Case Study	Revision	Test of 10 Marks
	Sem. V Theory		hazard identification	Procedure and case study	Current issues and Problems	Current issues and Problems	Water, soil and Wetland Management	Test of 10 Marks	Env. Protection act	Legal requirement for environmental auditing	Legal requirement for environmental auditing	Test of 10 Marks	Role of IPCC	Role of Conference of the Parties	Environmental Education and Awareness	Test of 10 Marks
	SEC1		Socio-political history and Expression of Landscape style	Architecture characteristics, elements	Types of garden- Mughal	Types of garden- English	Test of 10 Marks	Types of garden- Spanish	Types of garden- Japanese	Types of garden- French	Test of 10 Marks	Types of garden- Italian	Types of garden- water garden	Types of garden- Herb garden	Types of garden- Rock garden	Test of 10 Marks
	SEC1		Processing of Raw material : Fruits	vegetables	Green and ripe mango	Test of 10 Marks	Quality control in food processing industry; process	inspection, sensory evaluation	packaging, labelling and storage	Test of 10 Marks	By products of Citrus industry; Oil, dry citrus peel	By products of Citrus industry; Oil, dry citrus peel	Apple waste- application of pectin in medicine and nutrition	Apple waste- application of pectin in medicine and nutrition	Revision	Test of 10 Marks

DEPARTMENT OF BOTANY ACADEMIC PLAN 2021-2022

EVEN SEMESTER

Week		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Name	Sem/ paper	15/11/2021- 20/11/2021	22/11/2021- 26/11/2021	28/11/2021- 04/12/2021	06/12/2021- 11/12/2021	13/12/2021- 18/12/2021	20/12/2021- 24/12/2021	03/01/2022- 08/01/2022	10/01/2022- 15/01/2022	17/01/2022- 22/01/2022	24/01/2022- 29/01/2022	31/01/2022- 05/02/2022	07/02/2022- 12/02/2022	14/02/2022- 19/02/2022	21/02/2022- 26/02/2022	28/02/2022- 05/03/2022	
Ms. Supriya Janabandhu	Sem. II Theory 2 L/W	Introduction tissue system in plants	simple tissue	complex tissue	MCQ test	Types of vascular bundles	dicot and monocot stomata	Test	Primary structure in Dicot root	Primary structure in Monocot root	Difference between Dicot and monocot root	MCQ test	Primary structure in Dicot stem	Primary structure in Monocot stem	comparison between Dicot and Monocot Stem	MCQ test	
	Sem. IV Theory 2 L/W	Types of Forest In India	Tropical and Temperate Forest	Methods of Regeneration	MCQ test	Social Forestry-objectives and scope	Types of forestry	Agroforestry - Aims, objectives and need	MCQ Test & Revision	Potting and Repotting	Garden Design	Types of Garden - Formal and informal	MCQ test	Green house technology -Scope and objectives	Floral decoration ,dry flowe	Florist shop management Spice Garden	
	Sem. IV Practica 1 P/W	Geotagging of some plants in SVV campus	Study of Biodiversity composition of different types of forest	Identify types of forest based on list of dominant flora	Potting & repotting	Plants suitable for suitable garden location	Study of greenhouse plants	Garden Design - Formal & informal	Western style of Flower arrangement								
	Sem. VI Theory 5 L/W	Anatomy- Meristem -Definition and classification Cambium -origin ,function structure Cell division	Anomalous secondary growth in dicoe stem - Bignonia,Aristolochia,Acyranthes Monocot stem - Draceana Dicot root Beta ,Raphanus	Root Stem Transition Test Embryology - Microsporangium	Megasporangium Polygonum type of embryo sac Double fertilisation	Development of Dicot embryo MCQ test	Forest Mensuration- Definition,scope and objectives Measurement Of individual tree parameter	Measurement of Height	Height measuring instruments McQ test	SEC-Spiritual farming - Philosophy,Principle ,Technique Green revolution Four wheels of SPNF	Application Of SPNF Importance of Desi cow	Preparation of Jeeva Amrit,Beejamrit ,Mulching,wahpsa	Precision Farming- Objectives,scope,advantages and disadvantages	5 layer model Cultivation	Set up of kitchen Garden Case study - indo lsreal Agriculture project role of NABARD	Revision MCQ test	
	Sem. VI Practical	Study of cambium	study of anomalous growth	study of stomata	Study of various stages of microsporogenesis ,Megasporogenesis /embryo development	to mount embryo of Citrus,Cucurbita,Scoparia,Maize	Defects due to natural forces,insects,fungi,defective seasoning	defects due to defective conversion		Project							
Dr. Meena Patankar	Sem. II Theory C2 M3 EC1 C1 M2 1L/Wk	Definition ,Branches of Horticulture	Importance and Scope of horticulture	Garden operations Soil types	Soil preparation Digging and sowing	Watering Weed Management	Method of propagation by Seed	Cutting Test	Layering	Budding and Grafting	Grafting Contd. Test	EC 1C Introduction, Scope of algae and aromatic plants in perfumery and cosmetic industry.	Essential oils used in perfumery: Cinnamon oil, Sandalwood oil	Vegetable oils and fats used in cosmetics: Kokum Butter	Natural dyes in Cosmeceuticals- Coffee, Teak leaf, Parijat	Revision Test	
	Sem. II Practical	Determination of soil texture of given sample by sieving method	Identification of weeds	Preparation of soil for plantation	Propagation practices by Seed, Stem cutting	Propagation practices by Simple layering	Propagation practices by T-budding,Whip and Splice grafting	Propagation practices by Whip and Splice grafting	Identification of plants as a source of dye and essential oils- , Teak, Coffee, Parijat, Sandalwood, Cinnamon	Identification of plants used as Cosmeceuticals and their uses- Maka, Shikakai, Musta, Brahmi, Papaya, Potato, Turmeric, Aloe							
	Sem. IV Theory 2 L/ WK C3M3	Nursery - introduction ,importance	parts of nursery,	Ecological and economic factors affecting nursery developmen	Types of nursery	Preparation of nursery beds	media ,containers for plants	vegetative and propagation through seeds	Propagation through artificial techniques	Micropropagation	Micropropagation	Marketing and economics of nursery practices	Marketing and economics of nursery practices	Revision	Revision	Test	
	Sem. IV Theory 2 L/ WK C2M3	Structure of DNA	Packaging of DNA into chromosome	DNA replication in prokaryotes	DNA replication in Eukaryotes Test	Multiple alleles	Multiple alleles	Multiple genes	Multiple genes Test	variation in chromosome origin and production	aneuploidy in plants	euploidy and aneuploidy in man	syndromes in man. Test	Revision	Revision	Test	
	Sem. VI Theory C3 M2 1 L/ 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	Revision	Revision	Test	
	Sem. VI DSEC 1 M1 and M2 2 L/Wk Theory	M1 Ayurveda- Definition, History. Traditional systems of medicine: Siddha and Unani.	Panchamahabhutas ,Tridosha theory Triguna ,prakrutinidaan	Saptadhatus , Agni , mala concept, Taste , virya , vipak	six tastes and their characteristics, Management of Kapha Test	Management of pitta, Management of vata	Virudha ahar, incompatibility of nutrients, Nutrition in relation to time and season	M2 History and use of traditional medicine Harda ,beheda	Amla ,Tulsi Soonthi ,Vekhand	Jyesthamadh,asfoetida Murudsheng ,Ashoka bark	pimpli , Dikemali Akkalkara	Wheat germ grass ginseng	Awreness , control and legislation Test	Revision	Revision	Test	
	Sem. VI Theory SEC 2 L/wk	Concept of entrepreneur, entrepreneurship, Characteristics of an entrepreneur, functions of entrepreneur	Entrepreneurial Behaviour – Concept, Factors affecting the entrepreneurial behaviour of the farmers, Factors affecting entrepreneurship.	Agri- entrepreneurship- Concept, need and scope, Classification (business,Trading,Industrial, Corporate, Agriculture	Marketing Research- Business Environment;Micro-environment and Macro-environment	Marketing and Advertising of Product – Concept of Marketing, Market assessment	Elements of the marketing mix.	Developing first generation entrepreneurs , Woman entrepreneurs	Entrepreneurship in globalized economy ,Role of Consultancy	Venture feasibility; Financial feasibility, Institutional, Organisation, Managerial aspects	Business development strategy – Concept, Long term and short term strategy at different levels of business organization	Entrepreneurial business practices and policies, Project management and Problems of Entrepreneur,	Government assistance and policies, Entrepreneurial failures; Causes and Cures	Sickness and Survival of Entrepreneurs, Types of Financial assistance; Debt-loan, Equity, Tax, Incentives, Grants, Short term financing	Venture Capital Financing – Concept, Purposes, Schemes, Venture capital, Institution guidelines for venture capital,	Fund Companies, Capital expenditure, sources	

Week		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Dr. Meena Patankar	Sem VI Prac	Phytochemical screening of Alkaloids, Phenolics, Flavonoids, Glycosides, Volatile oils and Tannins.	Adulteration tests for different plant materials; Turmeric powder, Black pepper, Cinnamon powder	Identification of plant parts from Grandma's pouch and mention their source, constituents and uses.	Germination of wheat and preparation of its juice.	Identification of Ginseng using photomicrograph / specimen.	Project									
	Sem. VI Theory Core 1 L week	P1-U1 Introduction	P1-U1 Lycopodium	P1-U1 Lycopodium	P3-U1 Introduction	P3-U1 Stomata	P3-U1 Factors affecting transpiration, Significance	P1-U1 Adiantum	P1-U1 Calamites	P1-U1 Lepidodendron	P3-U1 Respiration Intro, Significance	P3-U1 Glycolysis	P3-U1 ATP Synthesis	Revision		
	Sem. VI Theory Core 1 L / week	P1-U1 Pterophyta	P1-U1 Lycopodium	P1-U1 Adiantum	P3-U1 Transpiration	P3-U1 Transpiration rate	P3-U1 Respiration vs Transpiration	P1-U1 Adiantum	P1-U1 Calamites, Lepidodendron	P1-U1 Lepidodendron, Dr sahani	P3-U1 Aerobic Respiration Mechanism	P3-U1 TCA Cycle	P3-U1 Energetics	Revision		
	Sem. VI Core Pract	Measurement of CO2	Isolation & Character of Mitochon.	Respiratory Enzymes Oxidase	Respiratory Enzymes Peroxidase	Respiratory Enzymes Catalase	Respiratory Enzymes Dehydrogenase	10 Marks Test	Ganong's Respirometer	Kuhne's tube	10 marks test	Phytochemical Screening	Adulteration Test	Revision		
	Sem. VI Theory DSEC 1L / week	DSEC PVla-U2 Intro Rec DNA Tech	DSEC PVla-U2 Ti plasmid	DSEC PVla-U2 Ti plasmid	DSEC PVla-U2 Gene Transfer	DSEC PVla-U2 Gene Transfer	DSEC PVla-U2 Gene Transfer	DSEC PVla-U2 PTC for flowering plants	DSEC PVla-U2 PTC for flowering plants	DSEC PVla-U2 PTC for flowering plants	DSEC PVla-U2 PTC in Agriculture	DSEC PVla-U2 PTC in Agriculture	DSEC PVla-U2 PTC in Agriculture	Revision		
	Sem. IV Theory 1L/ week	P1-U2 Introduction	P2-U2 Stats common terms	P1-U2 Pinus	P1-U2 Pinus	P2-U2 Normal Distribution	P2-U2 Internet	P1-U2 Paleobotany Intro	P1-U2 , Geo-Timescale	P2-U2 Protein structure	P2-U2 chi-square	P2-U2 Correlation	P1-U2 Rhynia	Revision		
	Sem IV Theory	P1-U2 Classification	P2-U2 Data representation	P1-U2 Pinus	P1-U2 Pinus	P2-U2 normal Distribution	P2-U2 NCBI	P1-U2 , Geo-Timescale	P1-U2 Fossil types	P2-U2 Chi-square	P2-U2 Correlation	P2-U2 Correlation	P1-U2 Rhynia	Revision		
	Sem IV Pract	Digital Herbarium	Selaginella	Pinus	Equisetum	10 Marks Test	Fossils	Rhynia	10 Marks Test	NCBI	EBI	Protein structure	Revision	Revision		
	Sem II Theory 1 L / week	ECC2-M1 Nutra-Cosmeceuticals Introduction	ECC2-M1 Nutra-Probiotics	ECC2-M1 Nutra-Prebiotics	ECC2-M1 Nutra-Synbiotics	ECC2-M1 Nutra-Functional Food, Phytonutraceutical	ECC2-M1 Nutra-Benefits, Uses	ECC2-M1 Cosmeceuticals Introduction	ECC2-M1 Cosmeceuticals Plants	ECC2-M1 Cosmeceuticals Skin care	ECC2-M1 Cosmeceuticals Hair Care	ECC2-M1 Nutra-Cosmeceuticals Honey Type	ECC2-M1 Nutra-Cosmeceuticals Honey in herbal Cosmetics			
1 Credit 1 L / week	1 Cr-M1 Nutra-Cosmeceuticals Introduction	1Cr-M1 Nutra-Probiotics	1 Cr-M1 Nutra-Prebiotics	1 Cr-M1 Nutra-Synbiotics	1 Cr-M1 Nutra-Functional Food, Phytonutraceuticals	1 Cr-M1 Nutra-Benefits, Uses										
Dr. Ketan Thatte	Sem. II Theory ECC II.1 1 Lec/ Week	M III Nutraceutical product: Khakhra-milletts	M III Nutraceutical product: Dry chutney powder-Sesame and Curry leaves	M III Cosmeceutical product: Skin care-Antiaging cream	Test	M III Cosmeceutical products: Hair care-Shampoo,	M III Cosmeceutical products: Hair care-Conditioner	Test								
	Sem. II Theory EC II. 2 1 Lec/ Week	M I Introduction, Concept, Definition Levels of Biodiversity	M I Biodiversity Hotspots-Characteristic flora and fauna	M I Status of Biodiversity- Biodiversity Centers- Ramsar Wetland, Species Diversity	Test	M I Threats to Biodiversity- Loss of Biodiversity, Genetic variation, Ecological variations, Invasive species, Man-Animal Conflicts	M I Significance of Biodiversity	Test	M II IUCN Database	M II In Situ Conservation-National Parks, Sanctuary Ex Situ Conservation-Botanical Garden	M II In Vitro Conservation-Germplasm Conservation	Test	M II Legislative Measures- Biodiversity ACT, People Biodiversity Register	M II Case Study	Test	
	Sem. IV Theory 1 Lec / Week	CCIII M II Introduction to sustainable agricultural practices: Concept, Principle, Components- Soil, Water	CCIII M II Introduction to sustainable agricultural practices: Concept, Principle, Components- Soil, Water	CCIII M II Sustainable pest management.	CCIII M II Sustainable pest management.	Test	CCIII M II Biochemistry of composting and characterization of biocompost	CCIII M II Biochemistry of composting and characterization of biocompost	CCIII M II Biochemistry of composting and characterization of biocompost	CCIII M II Agricultural water management-Irrigation and drainage management,	CCIII M II Water recycle practices-Rain water and grey water.	CCIII M II Water recycle practices-Rain water and grey water.	Test	CCIII M II Effective irrigation technology for reducing water loss.	CCIII M II Effective irrigation technology for reducing water loss.	Test
	Sem. IV Practical		Plants used in modern medicine	Study of ecological instruments	Study of Karyotype	Study of site for plantation- edaphic factor	Study of different parameters of compost- alkalinity	Study of different parameters of compost- acidity	Study of different parameters of compost- hardness	Study of different parameters of compost- organic carbon						
	Sem. VI DSEC I Theory 2 Lec / week	M I Green house-Layout and construction	M I Green house-Layout and construction	M I Types of protected structures; Green house, Polyhouse	M I Shade-Net House, Low Tunnel House, Glass House	Test	M II Land Preparation; Site Selection, Land and Seed bed, preparation, Sowing, Planting seedlings	M II Irrigation Techniques; Micro-irrigation, Micro-Sprinkler, Irrigation and Fertigation	Test	M I Estimated construction cost for greenhouse, Variable cost, Capital cost, Fixed cost	M I Labour requirement Economical greenhouse	M I Automated greenhouse	Test	M II Microclimate Control; Heating, Cooling, Insulation, Humidity control, Ventilation	M II Care and Maintenance	Revision

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		
Dr Ketan Thatte	Sem. VI DSEC II Theory 2 Lec / week	M I Plant Tissue Culture-Introduction; History		M I Organization and Requirements of PTC Laboratory	M I Organization and Requirements of PTC Laboratory	Test	M I Culture media and types	M I Culture media and types	M II Organ Culture; Meristem, Root, Leaf, Anther, Pollen, Ovule, Embryo	M II Organ Culture; Meristem, Root, Leaf, Anther, Pollen, Ovule, Embryo	Test	M II Organogenesis	M I Totipotency, Callus induction and its application	M II Somatic embryogenesis and Synthetic Seeds	Test	M II Plant Regeneration and Hardening		
	Sem. V DSEC I Practical	Study of various types of green houses with the help of photomicrographs.	Study of core material and covering materials with the help of photomicrographs.	Identification of major pests and diseases with the help of photomicrographs	Market survey of vegetables	Study of green house plants; Soil requirement, Temperature, Irrigation, Fertilizer requirement and Propagation methods for Capsicum, Tomato and Zucchini	Application of computers in greenhouse											
Ms Vaishali Pingale	Sem. V DSEC II Pract	Designing and Layout of PTC Laboratory	Preparation of MS media	Study of various sterilization techniques using photomicrograph	Study of Ti plasmid using photomicrograph	Encapsulation of axillary bud	Role of PTC in improvement of flowering plant quality; Case Study	Role of PTC in importance of quality of agricultural crops; Case Study										
	Sem II Theory M1 U2 Angiosperm	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- 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	Revision	Test	Study of the following families according to Bentham and Hooker system of classification- Rubiaceae	Test	Study of the following families according to Bentham and Hooker system of classification- Apocynaceae	Revision	Test	Study of the following families according to Bentham and Hooker system of classification- Amaryllidaceae	Test	Revision	Test	Test	
	ECC II U3	Introduction of Ethnobotany	Plants used in traditional medicines	Plants used by tribals as traditional medicine.	Revision and Test	Exploitation of Natural Resources by Pharmaceutical Industry- Survey	Loss of Ethnomedicinally important plants- Case study	Strategies to conserve diversity in Ethnomedicinal plants.	Revision and Test									
	Sem II Pract	Study of the families with the help of fresh material- Malvaceae	Study of the families with the help of fresh material- Papilionaceae	Study of the families with the help of fresh material- caesalpiniaceae	Study of the families with the help of fresh material- Mimosaceae	Study of the families with the help of fresh material- Rubiaceae	Study of the families with the help of fresh material- Apocynaceae	Study of the families with the help of fresh material- Solanaceae	Study of the families with the help of fresh material- Amaryllidaceae	Test	Study of ethno medicinally important plants used by tribal communities in the nearby region of Mumbai.							
	Sem. IV Theory M1 U3	Introduction of Bentham and Hooker's system of classification for flowering plants up to family.	Bentham and Hooker's system of classification for flowering plants up to family, Economic and Medicinal importance- Brassicaceae	Bentham and Hooker's system of classification for flowering plants up to family, Economic and Medicinal importance- Combretaceae	Bentham and Hooker's system of classification for flowering plants up to family, Economic and Medicinal importance- Rubiaceae	Revision and test	Bentham and Hooker's system of classification for flowering plants up to family, Economic and Medicinal importance- Euphorbiaceae	Bentham and Hooker's system of classification for flowering plants up to family, Economic and Medicinal importance- Liliaceae	Role of Ethnobotany in Modern medicine.	Sacred groves and their role in conservation	Sacred groves and their role in conservation	Revision and Test	Concept of e-herbaria	Final Revision	Test			
	Sem. IV Practical	Bentham and Hooker's system of classification for flowering plants up to family- Brassicaceae	Bentham and Hooker's system of classification for flowering plants up to family- Combretaceae	Bentham and Hooker's system of classification for flowering plants up to family- Rutaceae	Bentham and Hooker's system of classification for flowering plants up to family- Rubiaceae	Bentham and Hooker's system of classification for flowering plants up to family- Verbenaceae	Bentham and Hooker's system of classification for flowering plants up to family- Euphorbiaceae	Bentham and Hooker's system of classification for flowering plants up to family- Liliaceae	Demonstration of digital herbarium	Identification of Sacred groves.	Plants used in modern medicine							
	Sem. VI Theory P1 U3	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	Revision and test	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	Revision and Test	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		
	Sem. VI Theory P2 U2	Introduction of Palynology	Pollen and Spore morphology - Size and Shape, Polarity	Pollen and spore morphology- Apertures (NPC), Exine stratification	Exine excrescences, Construction of palynogram	Test	Geographical and floral origin of honey	Chemical analysis, Physical adulteration	Honey as environmental monitors	Revision	Test	Tests for pollen viability	Causes of loss of pollen viability	Pollen storage	Revision	Test		
	Sem. VI Theory P3 U3	Seed Technology Introduction	Classes of seed (breeder, foundation,)	Classes of seed (registered, certified)	Seed quality (physical, genetic and physiological seed health)	Seed storage; Seed bank	Test	Seed drying – Stages of moisture elimination	Methods of drying- natural and artificial	Seed processing Requirement and techniques	Revision	Test	Seed Act and rules; Seed policy 2002	Revision	Revision	Test		
	DSEC I Ayurvedic Botany M3	Introduction of Ethnobotany as interdisciplinary science	History and use of medicinal herbs	History and use of medicinal herbs	Test	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	Revision	Test	Legal aspects to protect traditional knowledge	Revision	Revision	Test		
	DSEC II Floriculture M3	Cut Flowers: Scope, Global Scenario,	Cut Flower Standards, Grades, Harvest indices	Production of Dry Flowers: Tools, Materials and Basic Technique	Drying methods	Test	Maintenance of Flower shape, Procedure for embedding Pot-Pourri	Revision	Test	Dry Flowers; Principle and Techniques in dry flower making	Drying, Bleaching, Dyeing, Embedding, Pressing, Accessories	Designer arrangements; Dry flower buckets	Test	Bouquets, Wall hangings, Greeting cards	Revision	Test		

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Ms. Vaishali Pingle	Sem. VI Practical	Study of one plant each from the following Angiosperm families- Magnoliaceae, Myrtaceae, Cappariaceae	Study of one plant each from the following Angiosperm families- Cucurbitaceae, Umbelliferae, Apocynaceae	Study of one plant each from the following Angiosperm families- Asclepiadaceae, Labiatae	Study of one plant each from the following Angiosperm families- Convolvulaceae, , Amaranthaceae, Palmaceae	Determination of pollen viability	To study the germination of pollen grains and growth of pollen tubes in varying concentrations of sucrose	Study of pollen morphology (NPC analysis) - Hibiscus, Datura, Ocimum, Crinum, Pancratium, Cann, Bougainvillea	Pollen analysis of honey sample	Study of seed treatment and seed processing Instruments using Photomicrograph.	Study of Physical characteristics of different crop seeds and their shapes.	Identification and collection of important storage grain pests/Fungi using photomicrograph	Identification of plants commonly used by tribals in treatment of jaundice, skin diseases, diarrhoea and dysentery.	Flower arrangements	Dry flower arrangement	
Dr. Shilpa Nay	Sem II Theory	Forest Soil Management	Forest Soil Management	Forest Soil Management	Forest Soil Management	Test of 10 Marks	Silvicultural practices	Silvicultural practices	Biodiversity management and Conservation strategies	Biodiversity management and Conservation strategies	Test of 10 Marks	Biodiversity management and Conservation strategies	Organizations associated with Biodiversity; IUCN, NBPGR	Organizations associated with Biodiversity; IUCN, NBPGR	Revision	Test
	Sem. II practical	Identification of endemic and endangered species from western ghats														
	Sem. IV CC I	Terrestrial Ecosystem Management	Terrestrial Ecosystem Management	Terrestrial Ecosystem Management	Aquatic Ecosystem Management	Test of 10 Marks	Aquatic Ecosystem Management	Aquatic Ecosystem Management	Agro-ecosystem Management	Agro-ecosystem Management	Agro-ecosystem Management	Test of 10 Marks	Urban Ecology	Urban Ecology	Revision	Test
	Sem IV Practical	Study of ecological instruments	Estimation of biomass from polluted and restored area.	Set-up of green wall (Demonstration)	Establishing the green roof (Demo)											
	Sem VI CC IV	Forest protection	Forest protection	Forest protection	Forest resource monitoring	Test of 10 Marks	Forest resource monitoring	Application of remote sensing in forestry;	Application of remote sensing in forestry;	Test of 10 Marks	Mangrove forests in India	Mangrove forests in India	Role of people biodiversity register (PBR)	Role of people biodiversity register (PBR)	Revision	Test
	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	Test of 10 Marks	Land economic and rent value	Land economic and rent value	Land economic and rent value	Revision	Test
	Sem VI Practical	Study of common mangrove plants	Study of anatomical features of wood.	Study of anatomical features of wood.	Moisture content of wood proximate analysis.	Defects in wood due to natural forces	Defects due to insects	Defects due to fungi	Defects due to defective seasoning	Defects due to defective conversion						
	Sem VI, DSEC-I	Land Preparation	Land Preparation	Land Preparation	Irrigation Techniques	Test of 10 Marks	Irrigation Techniques	Irrigation Techniques	Microclimate Control	Microclimate Control	Test of 10 Marks	Microclimate Control	Care and Maintenance	Care and Maintenance	Revision	Test
	Sem VI, DSEC-I	Cultivation of Green House Crops	Cultivation of Green House Crops	Cultivation of Green House Crops	Cultivation of Green House Crops	Test of 10 Marks	Pest and Diseases of Green House Plants	Pest and Diseases of Green House Plants	Pest and Diseases of Green House Plants	Test of 10 Marks	Pest and Diseases of Green House Plants	Post-harvest management practices	Post-harvest management practices	Post-harvest management practices	Revision	Test
	Sem VI, DSEC Practical	Study of green house plants; Soil requirement, temperature, irrigation, fertilizer requirements and propagation methods for Capsicum, Tomato, Zucchini	Preparation of seed beds	Identification of major pests and diseases with the help of photomicrograph	Market survey of vegetables	Contract farming-format of group marketing	Field visits and Report									
Ms. Uzma Shaikh	Sem. II Theory CC1 Module1	Paleobotany: Petrification and Cast	Impression, Compression and Amber	Application of Fossil fuels	C14 dating	Gymnosperms: General characters of Gymnosperms	General characters of Gymnosperms	Classification of Gymnosperms	Classification of Gymnosperms	Structure of Cycas	Structure of Cycas	Reproduction of Cycas	Economic importance of Gymnosperms	Revision	Revision	
	Sem. IV Theory CC P1 U1	Bryophytes: General characters of class Anthocerotae	Structure and systematic position of Anthoceros	Life cycle of Anthoceros	Life cycle of Anthoceros	Ecological importance of Bryophytes	Ecological importance of Bryophytes	Pteridophytes: General characters of division Lycopsidea	Structure and systematic position of Selaginella	Life cycle of Selaginella	Life cycle of Selaginella	Types of ornamental Fern	Uses of ornamental Fern	Revision	Revision	
	Sem. VI Theory CC1 Module2	Systematic position, structure of Gnetum	Anatomy of Gnetum	Life cycle of Gnetum	Economic importance of Gnetum	Systematic position, structure of Ephedra	Anatomy and life cycle of Ephedra	Economic importance of Ephedra	Fossil gymnosperm: Lyginopteris	Fossil gymnosperm: Lyginopteris	Fossil gymnosperm: Pentoxylon	Fossil gymnosperm: Pentoxylon	Distribution of Gymnosperms in India	Revision		
	Sem. VI Theory SEC2 Module2	Definition and scope of Floriculture	Present status and Future prospects of Floriculture	Area, production and exports of Floriculture	Cultivation of Rose	Cultivation of Rose	Cultivation of Chrysanthemum	Cultivation of Chrysanthemum	Cultivation of Jasmine	Cultivation of Jasmine	Cultivation of Jasmine	Export quality management	Opportunities in marketing	Challenges in marketing	Revision	
	Sem. VI Theory SEC7 Module2	Natural pesticides	Insect and pest management	Dashparni Arka	Neemastra	Brahmastra	Agniasta	Root rot	Root knot	Plant tonic	Crop rotation	Beej Sanskar	Case study	Revision		