

ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY					CLASS: I BZC			SEMESTER: I		YEAR: 2021-2022		PAPER: I
NAME OF THE LECTURER: D. Raja Shekhar					SUBJECT: Fundamentals Of Microbes And Non Vascular Plants							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
NOV 2021	3	6	<u>Unit-I</u> Origin of life, concept of primary Abiogenesis; Miller and Urey experiment. Five kingdom classification of R.H. Whittaker; Discovery of microorganisms, Pasteur experiments,	Biography of Louis Pasteur	Lecture Lab PPT	2 2 1			Preparation of chart on Whittaker classification	1		
	4	6	<u>Unit-I</u> Germ theory of diseases. Shape and symmetry of viruses; structure of TMV and Gemini virus; Multiplication of TMV; A brief account of Prions and Viroids. Symptoms of plant diseases caused by Viruses	Robert Koch	Lecture Lab PPT	2 2 1			Seminar	1		

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DEC 2021	1	6	<u>Unit-II</u> Cell structure and nutrition of Eubacteria. Economic importance of Bacteria with reference to their role in Agriculture and industry A General Account On Symptoms Of Plant Diseases Caused By Bacteria- Citrus Canker.		Lecture Lab PPT	2 2 1			Collection Of Diseased Plants/Parts And Make Herbarium	1		
	2	6	<u>Unit-III</u> General Characteristics Of Fungi, Ainsworth Classification. Structure, Reproduction And Life History Of Rhizopus; Structure, Reproduction And Life History Of Puccinia.	Mushrooms	Lecture Lab PPT	2 2 1			Seminar	1		
	3	6	<u>Unit-III</u> Economic Uses Of Fungi In Food Industry, Pharmacy And Agriculture, A General Account On Symptoms Of Plant Diseases Caused By Fungi - Blast Of Rice Lichens- Structure And Reproduction; Ecological And Economic Importance Of Lichens.		Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	<u>Unit-IV</u> General Characteristics Of Algae, Pigments, Flagella And Reserve Food Material in Algae,		Lecture Lab PPT	2 2 1			Assignment	1		

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JAN 2022	1	6	<u>Unit-IV</u> Thallus Organization And Life Cycles In Algae Ultra structure of algae cell Fritsch Classification,		Lecture Lab PPT	2 2 1			Preparation of Chart on Algae classification	1		
	2	6	<u>Unit-IV</u> Occurrence, structure, reproduction and life cycle of Spirogyra (Chlorophyceae)	SCP - Single cell proteins	Lecture Lab PPT	2 2 1			Field visit to near ponds to observe algal blooms	1		
	3	6	<u>Unit-IV</u> Economic importance of Algae, Occurrence, structure, reproduction and life cycle of Polysiphonia (Rhodophyceae).		Lecture Lab PPT	2 2 1			Seminar	1		
	4	6	<u>Unit-V</u> General characteristics of Bryophytes Classification Of Bryophytes Up to Classes		Lecture Lab PPT	2 2 1			Assignment	1		

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DEPARTMENT: BOTANY				CLASS: I BZC		SEMESTER: I		YEAR: 2021-2022		PAPER: I		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: FUNDAMENTALS OF MICROBES AND NON VASCULAR PLANTS							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
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FEB -2022	1	6	<u>Unit-V</u> Occurrence, morphology, anatomy, reproduction and life cycle of Marchantia (Hepaticopsida),		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	<u>Unit-V</u> Occurrence, morphology, anatomy, reproduction and life cycle of Funaria (Bryopsida).		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-V</u> General account on evolution of saprophytes in Bryophytes	Economic importances	Lecture Lab YouTube video	2 2 1			Assignment	1		
	4	6	Revision									

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: I BZC		SEMESTER: II		YEAR: 2021-2022		PAPER: II		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: Basics of Vascular plants and Phytogeography							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity			Co-Curricular Activity				
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AUG - 2022	4	6	<u>Unit-I</u> General characteristics of Pteridophyta Classification of Smith (1955) up to divisions, Occurrence, morphology, anatomy, reproduction and life history of Lycopodium.	Brief account on Azolla	Lecture Lab PPT	2 2 1			Preparation of chart on Smith classification	1		

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DEPARTMENT: BOTANY				CLASS: I BZC		SEMESTER: II		YEAR: 2021-2022		PAPER: II		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: Basics of Vascular Plants and Phytogeography							
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SEP - 2022	1	6	<u>Unit-I</u> Occurrence, morphology, anatomy, reproduction and life history of Marsilea Steelar evolution in Pteridophytes Heterospory and seed habit.		Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<u>Unit-II</u> General characteristics of Gymnosperms, Sporne classification up to classes, Occurrence, morphology, anatomy and reproduction of Cycas.		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-II</u> Occurrence, morphology, anatomy and reproduction of Gnetum, Outlines of geological time scale, A brief account on Cycadeoidea.		Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	<u>Unit-III</u> Aim and scope of taxonomy, Species concept, Taxonomic hierarchy, species, genus and family. Plant nomenclature: Binomial system,		Lecture Lab PPT	2 2 1				1		

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OCT- 2022	1	6	<u>Unit-III</u> ICBN- rules for nomenclature, Herbarium and its techniques, BSI herbarium and Kew herbarium; Concept of digital herbaria, Bentham and Hooker system of classification.		Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<u>Unit-III</u> Systematic description and economic importance of the Annonaceae family, Systematic description and economic importance of the Curcubitaceae family		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-IV</u> Systematic description and economic importance of the Asteraceae family, Systematic description and economic importance of the Asclepiadaceae family, Systematic description and economic importance of the Amaranthaceae family,		Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	<u>Unit-IV</u> Systematic description and economic importance of the Euphorbiaceae family, Systematic description and economic importance of the Arecaceae family,		Lecture Lab PPT	2 2 1			Assignment	1		

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NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: Basics of Vascular Plants and Phytogeography							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
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Nov- 2022	1	6	<u>Unit-IV</u> Systematic description and economic importance of the Poaceae family, Outlines of Angiosperm Phylogeny Group (APG IV) <u>Unit-V</u> Principles of Phytogeography		Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<u>Unit-V</u> Distribution (wides, endemic, discontinuous species) Endemism – types and causes, Phytogeographic regions of World		Lecture Lab PPT	2 2 1			Seminar	1		
	3	6	<u>Unit-V</u> Phytogeographic regions of India Vegetation types in Andhra Pradesh.		Lecture Lab PPT	2 2 1			Assignment	1		
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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: II BZC		SEMESTER: III		YEAR: 2021-2022		PAPER: III		
NAME OF THE LECTURER: D. Raja Shekhar					SUBJECT: Anatomy, Embryology of Angiosperms, Ecology and Biodiversity							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
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DEC- 2021	3	6	<u>Unit-I</u> Organization of apical meristems, Tunica- carpus theory and Histogen theory, Tissue systems – Epidermal, Ground and vascular tissues		Lecture Lab PPT	2 2 1			Preparation of chart on meristems	1		
	4	6	<u>Unit-I</u> Anomalous secondary growth in Boerhaavia Anomalous secondary growth in Dracaena; Study of timbers of - Teak, Red sanders and Rosewood & economic importance;	Annual rings	Lecture Lab PPT	2 2 1			Seminar	1		

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NAME OF THE LECTURER: D. Raja Shekhar					SUBJECT: Anatomy, Embryology of Angiosperms, Ecology and Biodiversity							
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JAN- 2022	1	6	<u>Unit-II</u> Structure of anther, anther wall, types of tapetum. Micro-sporogenesis and development of male gametophyte		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	<u>Unit-II</u> Structure of ovule, Megasporogenesis Monosporic, bisporic (Allium) and tetrasporic (Peperomia) types of embryo sacs;		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-II</u> Outlines of pollination, pollen – pistil interaction and fertilization Endosperm - Types and biological importance – Free nuclear, cellular, helobial and ruminate endosperm		Lecture Lab PPT	2 2 1			Collection of different types of endosperms	1		
	4	6	<u>Unit-II</u> Development of Dicot embryo. <u>Unit-III</u> Ecology: definition, branches and significance of ecology. Ecosystem: Concept and components, energy flow, food chain, food web,	Bio-Geo chemical cycle	Lecture Lab PPT	2 2 1			Seminar	1		

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CLASS: II BZC

SEMESTER: III

YEAR: 2021-2022

PAPER: III

NAME OF THE LECTURER: D. Raja Shekhar

SUBJECT: Anatomy, Embryology of Angiosperms, Ecology and Biodiversity

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FEB - 2022	1	6	<u>Unit-III</u> Ecological pyramids, Plants and environment: Climatic (light and temperature), edaphic and biotic factors. Ecological succession: Hydrosere and Xerosere.		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	<u>Unit-IV</u> Population ecology: Natality, mortality, growth curves, ecotypes, ecads; Community ecology: Frequency, density, cover, life forms, biological spectrum		Lecture Lab PPT	2 2 1			Field visit in our college to Collect the data of plant	1		
	3	6	<u>Unit-IV</u> Community ecology: Frequency, density, cover, life forms, biological spectrum	BOD	Lecture Lab PPT	2 2 1			Seminar	1		
	4	6	<u>Unit-IV</u> Concepts of productivity: GPP, NPP and Community Respiration; Secondary production, P/R ratio and Ecosystems.		Lecture Lab PPT	2 2 1			Assignment	1		

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NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: Anatomy, Embryology of Angiosperms, Ecology and Biodiversity							
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MAR -2022	1	6	<u>Unit-V</u> Biodiversity: Basic concepts, Convention on Biodiversity - Earth Summit		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	<u>Unit-V</u> Value of Biodiversity; types and levels of biodiversity and Threats to biodiversity		Lecture Lab PPT	2 2 1			Exploration of plants in college campus	1		
	3	6	<u>Unit-V</u> Biodiversity Hot spots in India. Biodiversity in North Eastern Himalayas and Western Ghats		Lecture Lab PPT	2 2 1			Collect plants which are present on Red list	1		
	4	6	<u>Unit-V</u> Principles of conservation: IUCN threat-categories, RED data book. Role of NBPGR and NBA in the conservation of Biodiversity.		Lecture Lab PPT	2 2 1			Seminar	1		

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NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: Anatomy, Embryology of Angiosperms, Ecology and Biodiversity							
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APR -2022	1	6	Unit-V Role of NBPGR and NBA in the conservation of Biodiversity.		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	RIVISION									
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DEPARTMENT: BOTANY				CLASS: II BZC		SEMESTER: IV		YEAR: 2021-2022		PAPER: IV		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: Plant Physiology and Metabolism							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
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JUN - 2022	3	6	Unit-I Importance of water to plant life physical properties of water Diffusion, Imbibition, Osmosis Water Potential.		Lecture Lab PPT	2 2 1			Group discussion	1		
	4	6	Unit-I Osmotic Potential, Pressure Potential Absorption and lateral transport of water Ascent of sap Transpiration, Stomata structure and mechanism of stomatal movements		Lecture Lab PPT	2 2 1			Seminar	1		

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JUL - 2021	1	6	<u>Unit-I</u> Mechanism of phloem transport; source-sink relationships <u>UNIT-II</u> Essential macro and micro mineral nutrients and their role in plants		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	<u>Unit-II</u> symptoms of mineral deficiency Absorption of mineral ions- passive and active processes Characteristics, nomenclature and classification of Enzymes		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-II</u> Mechanism of enzyme action, enzyme kinetics Respiration: Aerobic and Anaerobic, Glycolysis, Krebs cycle	Enzyme inhibition	Lecture Lab PPT	2 2 1			Make chart on Glycolysis	1		
	4	6	<u>Unit-II</u> Electron transport system Mechanism of oxidative phosphorylation Pentose Phosphate Pathway (HMP shunt) <u>Unit-III</u> Photosynthesis: Photosynthetic pigments,		Lecture Lab PPT	2 2 1			Seminar	1		

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CLASS: II BZC

SEMESTER: IV

YEAR: 2021-2022

PAPER: IV

NAME OF THE LECTURER: G. MANI KUMAR

SUBJECT: Plant Physiology and Metabolism

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AUG - 2022	1	6	<u>Unit-III</u> Absorption and action spectra; Red drop and Emerson enhancement effect Concept of two photo systems Photo phosphorylation		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	<u>Unit-III</u> Mechanism of photosynthetic electron transport and evolution of oxygen Carbon assimilation pathways (C3,C4 and CAM) Photorespiration - C2 pathway		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-IV</u> Nitrogen metabolism Biological nitrogen fixation – a symbiotic and symbiotic Nitrogen fixing organisms		Lecture Lab PPT	2 2 1			Seminar	1		
	4	6	<u>Unit-IV</u> Nitrogenase enzyme system. Lipid metabolism, Classification of Plant lipids, saturated and unsaturated fatty acids.		Lecture Lab PPT	2 2 1			Assignment	1		

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NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: Plant Physiology and Metabolism							
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SEP -2022	1	6	<u>Unit-IV</u> Anabolism of triglycerides, B-oxidation of fatty acids, Glyoxylate cycle <u>Unit-V</u> Growth and Development: Definition, phases and kinetics of growth.		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	<u>Unit-V</u> Physiological effects of Plant Growth Regulators Physiology of flowering: Photoperiodism,		Lecture Lab PPT	2 2 1			Quiz	1		
	3	6	<u>Unit-V</u> Role of phytochrome in flowering Seed germination and senescence Physiological changes	Outlines of stress Physiology (Temperature & Salinity)	Lecture Lab PPT	2 2 1			Seminar	1		
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DEPARTMENT: BOTANY				CLASS: II BZC		SEMESTER: IV		YEAR: 2021-2022		PAPER: V		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: Cell Biology, Genetics and Plant Breeding							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity			Co-Curricular Activity				
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JUN - 2022	3	6	Unit-I Cell theory Prokaryotic vs eukaryotic cell & Animal vs plant cell; Ultra-structure of a plant cell. Ultra-structure of cell wall		Lecture Lab PPT	2 2 1			Preparation of chart on Eukaryotic cell	1		
	4	6	Unit-I Ultra-structure of plasma membrane and various theories on its organization Polymorphic cell organelles, Plastid DNA Ultra structure of chloroplast		Lecture Lab PPT	2 2 1			Seminar	1		

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NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: Cell Biology, Genetics and Plant Breeding							
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JUL - 2021	1	6	<u>Unit-II</u> Prokaryotic vs eukaryotic chromosome Morphology of a eukaryotic chromosome Euchromatin and Heterochromatin		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	<u>Unit-II</u> Karyotype and ideogram Chromosomal Aberrations Organization of DNA in a chromosome		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-III</u> Mendel's laws of inheritance Incomplete dominance and co-dominance, Multiple Allelism. Gene interactions A brief account of Linkage		Lecture Lab PPT	2 2 1			Group discussion	1		
	4	6	<u>Unit-III</u> A brief account of Crossing over Chromosomal mapping -2 point and 3 point test cross. Concept of maternal inheritance Mitochondrial DNA.	Mitochondrial inheritance	Lecture Lab PPT	2 2 1			Seminar	1		

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DEPARTMENT: BOTANY

CLASS: II BZC

SEMESTER: IV

YEAR: 2021-2022

PAPER: V

NAME OF THE LECTURER: G. MANI KUMAR

SUBJECT: Cell Biology, Genetics and Plant Breeding

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AUG - 2022	1	6	<u>Unit-IV</u> Watson and Crick model of DNA. Brief account on DNA Replication- Semi conservative method Brief account on Transcription		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	<u>Unit-IV</u> Types and functions of RNA Gene concept and genetic code Brief account on Translation Regulation of gene expression – Lac. Operon		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-V</u> Plant Breeding and its scope Genetic basis for plant breeding Plant Introduction and acclimatization.		Lecture Lab PPT	2 2 1			Seminar	1		
	4	6	<u>Unit-V</u> Mass selection - definition, procedure; applications and uses Advantages and limitations of Mass selection Pure line selection - definition, procedure; applications and uses		Lecture Lab PPT	2 2 1			Assignment	1		

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SEP -2022	1	6	Unit-V Clonal selection - definition, procedure, applications and uses, Advantages and limitations of Pure line selection		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	Unit-V Advantages and limitations of Clonal selection, Hybridization- schemes, and technique		Lecture Lab PPT	2 2 1			Seminar	1		
	3	6	Unit-V Heterosis Molecular breeding DNA markers in plant breeding RAPD and RFLP	Role of mutations in plant breeding	Lecture Lab PPT	2 2 1			Quiz	1		
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SEP - 2021	3	6	Unit-I Cell, the unit of life- Cell theory Prokaryotic and eukaryotic cell Eukaryotic cell components. Ultra structure and functions of cell wall		Lecture Lab PPT	2 2 1			Preparation of chart on Eukaryotic cell	1		
	4	6	Unit-I Ultra structure and functions of cell membrane Chromosomes: morphology organization of DNA in a chromosome (nucleosome model), Euchromatin and heterochromatin		Lecture Lab PPT	2 2 1			Seminar	1		

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: III BZC		SEMESTER: IV		YEAR: 2021-2022		PAPER: V		
NAME OF THE LECTURER: D.RAJASHEKHAR					SUBJECT: Cell Biology, Genetics and Plant Breeding							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity			Co-Curricular Activity				
					Activity	Hours Allotted	Whether Conducted If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date	
OCT - 2021	1	6	<u>Unit-II</u> DNA as the genetic material Griffith’s and Avery’s transformation experiment Hershey – Chase bacteriophage experiment DNA structure (Watson & Crick model)		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	<u>Unit-II</u> Replication of DNA (semi-conservative) Types of RNA (mRNA, tRNA, rRNA), structure and function of RNA		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-III</u> Mendel’s laws of Inheritance (Mono- and Di- hybrid crosses) Backcross and Test cross Chromosome theory of Inheritance Linkage: concept,	Mitochondrial inheritance	Lecture Lab PPT	2 2 1			Group discussion	1		
	4	6	<u>Unit-III</u> Complete and incomplete linkage, Coupling and repulsion; Linkage maps based on two and three factor crosses Crossing Over: concept		Lecture Lab PPT	2 2 1			Seminar	1		

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# ANNUAL CURRICULAR PLAN

DEPARTMENT: BOTANY

CLASS: III BZC

SEMESTER: IV

YEAR: 2021-2022

PAPER: V

NAME OF THE LECTURER: D.RAJASHEKHAR

SUBJECT: Cell Biology, Genetics and Plant Breeding

Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
NOV - 2021	1	6	<u>Unit-III</u> Significance of Crossing Over <u>Unit-IV</u> Introduction and Objectives of plant breeding Methods of crop improvement	Pure line selection	Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	<u>Unit-IV</u> Procedure, advantages and limitations of Introduction Procedure, advantages and limitations of Selection Procedure, advantages and limitations of Hybridization		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-V</u> Role of mutations in crop improvement Role of somaclonal variations in crop improvement		Lecture Lab PPT	2 2 1			Seminar	1		
	4	6	<u>Unit-V</u> Molecular breeding Use of DNA markers in plant breeding		Lecture Lab PPT	2 2 1			Assignment	1		

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: III BZC		SEMESTER: IV		YEAR: 2021-2022		PAPER: V		
NAME OF THE LECTURER: D.RAJASHEKHAR					SUBJECT: Cell Biology, Genetics and Plant Breeding							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
DEC -2021	1	6	Unit-V Use of DNA markers in crop improvement RAPD and RFLP		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	RIVISION									
	3	6	RIVISION									
	4	6	RIVISION									

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY					CLASS: III BZC		SEMESTER: V		YEAR: 2021-2022		PAPER: VI	
NAME OF THE LECTURER: D.RAJASEKHAR					SUBJECT: PLANT ECOLOGY& PHYTOGEOGRAPHY							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity			Co-Curricular Activity				
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
SEP - 2022	3	6	<u>Unit – I</u> Ecology: definition, branches and significance of ecology Climatic Factors: Light, Temperature, precipitation Edaphic Factor: Origin, formation, composition and soil profile		Lecture Lab PPT	2 2 1			Group discussion	1		
	4	6	<u>Unit – I</u> Biotic Factor: Interactions between plants and animals. <u>Unit – II</u> Ecosystem: Concept and components Energy flow-Food chain, Food web		Lecture Lab PPT	2 2 1			Seminar	1		

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: III BZC		SEMESTER: V		YEAR: 2021-2022		PAPER: VI		
NAME OF THE LECTURER: D.RAJASEKHAR					SUBJECT: PLANT ECOLOGY& PHYTOGEOGRAPHY							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity			Co-Curricular Activity				
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
OCT - 2021	1	6	<u>Unit-II</u> Ecological pyramids Productivity of ecosystem-Primary, Secondary and Net productivity Biogeochemical cycles- Carbon Biogeochemical cycles- Nitrogen		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	<u>Unit-II</u> Biogeochemical cycles- Phosphorous <u>Unit-III</u> Population –definition Characteristics and importance Outlines –ecotypes		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-III</u> Plant communities- characters of a community Frequency, density, cover, life forms, competition Interaction between plants growing in a community	BOD	Lecture Lab PPT	2 2 1			Seminar	1		
	4	6	<u>Unit-IV</u> Principles of Phytogeography Distribution Phytogeographic regions of India Phytogeographic regions of World		Lecture Lab PPT	2 2 1			Map pointing	1		

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: III BZC		SEMESTER: V		YEAR: 2021-2022		PAPER: VI		
NAME OF THE LECTURER: D.RAJASEKHAR					SUBJECT: PLANT ECOLOGY& PHYTOGEOGRAPHY							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
NOV - 2021	1	6	Unit-IV Endemism – types and causes Unit-V Definition, levels of biodiversity Genetic diversity Species diversity		Lecture Lab PPT	2 2 1			Assignment	1		
	2	6	Unit-V Ecosystem diversity Biodiversity hotspots Biodiversity hotspots of India		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	Unit-V Loss of biodiversity Conservation of biodiversity In-situ and ex-situ Conservation methods		Lecture Lab PPT	2 2 1			Seminar	1		
	4	6	Unit-V Seed banks Conservation of genetic resources Importance of genetic resources	NBPGR and NBA	Lecture Lab PPT	2 2 1			Assignment	1		

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: III BZC		SEMESTER: V		YEAR: 2021-2022		PAPER: VI		
NAME OF THE LECTURER: D.RAJASEKHAR					SUBJECT: PLANT ECOLOGY& PHYTOGEOGRAPHY							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
DEC -2021	1	6	RIVISION									
	2	6	RIVISION									
	3	6	RIVISION									
	4	6	RIVISION									

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY					CLASS: III BZC		SEMESTER: VI		YEAR: 2021-2022		PAPER: 7 C	
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: PLANT TISSUE CULTURE AND ITS BIOTECHNOLOGICAL APPLICATIONS							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
FEB - 2022	4	6	<u>Unit-I</u> History of plant tissue culture research Basic principles of plant tissue culture, Basic principles of callus culture Basic principles of meristem culture and organ culture	Biotechnology Introduction	Lecture Lab PPT	2 2 1			Group discussion			

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: III BZC		SEMESTER: VI		YEAR: 2021-2022		PAPER: 7C		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: PLANT TISSUE CULTURE AND ITS BIOTECHNOLOGICAL APPLICATIONS							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity			Co-Curricular Activity				
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
MAR - 2022	1	6	<u>Unit-I</u> Totipotency of cells Differentiation and dedifferentiation Sterilization (physical and chemical methods MS medium Phytohormones		Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<u>Unit-I</u> Medium for micro-propagation/clonal propagation Callus subculture maintenance, Growth measurements,	Collection methods of Explants	Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-I</u> Morphogenesis in callus culture Organogenesis, Somatic embryogenesis <u>Unit-II</u> Endosperm culture Embryo culture Embryo rescue technique	Factors effecting acclimatization	Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	<u>Unit-II</u> Production of secondary metabolites Cryopreservation Germ plasm conservation <u>Unit-III</u> Restriction End nucleases Concepts of restriction mapping		Lecture Lab PPT	2 2 1			Seminar	1		

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# ANNUAL CURRICULAR PLAN

DEPARTMENT: BOTANY

CLASS: III BZC

SEMESTER: VI

YEAR: 2021-2022

PAPER: 7C

NAME OF THE LECTURER: G. MANI KUMAR

SUBJECT: PLANT TISSUE CULTURE AND ITS BIOTECHNOLOGICAL APPLICATIONS

Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
APR- 2022	1	6	<u>Unit-III</u> Cloning Vectors Gene cloning PCR mediated gene cloning		Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<u>Unit-III</u> Construction of genomic and cDNA libraries Screening DNA libraries Colony hybridization		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-IV</u> Methods of gene transfer Agro bacterium-mediated gene transfer Direct gene transfer by Electroporation, Microinjection, Micro projectile bombardment		Lecture Lab PPT	2 2 1			Quiz	1		
	4	6	<u>Unit-IV</u> Selection of transgenics Selectable marker and reporter genes  <u>Unit-V</u> Applications of Plant Genetic Engineering Crop improvement		Lecture Lab PPT	2 2 1			Assignment	1		

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: III BZC		SEMESTER: VI		YEAR: 2021-2022		PAPER: 7C		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: PLANT TISSUE CULTURE AND ITS BIOTECHNOLOGICAL APPLICATIONS							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
MAY - 2022	1	6	<u>Unit-V</u> Herbicide resistance Insect resistance Virus resistance		Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<u>Unit-V</u> Genetic modification Transgenic plants for pest resistant (Bt-cotton) Herbicide resistance (Round Up Ready soybean)		Lecture Lab PPT	2 2 1			Seminar	1		
	3	6	<u>Unit-V</u> Improved agronomic traits - flavour Saver Tomato, Golden rice) Improved horticultural varieties		Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	Revision									

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY					CLASS: III BZC			SEMESTER: VI		YEAR: 2021-2022		PAPER: VIII A
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: PLANT DIVERSITY AND HUMAN WELFARE							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity			Co-Curricular Activity				
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
FEB - 2022	4	6	<u>Unit-I</u> Genetic diversity Species diversity Plant diversity at the ecosystem level Agro biodiversity cultivated plant taxa and wild taxa	Conservation of Biodiversity	Lecture Lab PPT	2 2 1			Seminar	1		

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: III BZC		SEMESTER: VI		YEAR: 2021-2022		PAPER: VIII A		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: PLANT DIVERSITY AND HUMAN WELFARE							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity			Co-Curricular Activity				
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
MAR - 2022	1	6	<u>Unit-I</u> Values and uses of biodiversity Ethical and aesthetic values Methodologies for valuation Uses of plants	Landscaping	Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<u>Unit-II</u> Loss of genetic diversity Loss of species diversity Loss of ecosystem diversity Loss of agro biodiversity		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-II</u> Projected scenario for biodiversity loss Management of plant biodiversity Organizations associated with biodiversity management		Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	<u>Unit-II</u> Methodology for execution Biodiversity legislation and conservations Biodiversity information management and Communication		Lecture Lab PPT	2 2 1			Group discussion	1		

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# ANNUAL CURRICULAR PLAN

DEPARTMENT: BOTANY

CLASS: III BZC

SEMESTER: VI

YEAR: 2021-2022

PAPER: VIII A

NAME OF THE LECTURER: G. MANI KUMAR

SUBJECT: PLANT DIVERSITY AND HUMAN WELFARE

Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
APR- 2022	1	6	<u>Unit-III</u> Environmental Impact Assessment (EIA) Geographical Information System GIS Participatory resource appraisal		Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<u>Unit-III</u> Ecological footprint with emphasis on carbon foot print Resource accounting Solid and liquid waste management		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-IV</u> Conservation of genetic diversity species diversity and ecosystem diversity In situ and ex situ conservation,	Germplasm conservation	Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	<u>Unit-IV</u> Social approaches to conservation Biodiversity awareness programmes Sustainable development	Chipko movement	Lecture Lab PPT	2 2 1			Assignment	1		

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: III BZC		SEMESTER: VI		YEAR: 2021-2022		PAPER: VIII A		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: PLANT DIVERSITY AND HUMAN WELFARE							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
MAY- 2022	1	6	<u>Unit-V</u> Importance of forestry Utilization and commercial aspects of Avenue trees Utilization and commercial aspects of Ornamental plants Utilization and commercial aspects of Alcoholic beverages through ages		Lecture Lab PPT	2 2 1			Field visit of our College	1		
	2	6	<u>Unit-V</u> Fruits and nuts Important fruit crops their commercial importance Commercial important Wood, fiber and their uses		Lecture Lab PPT	2 2 1			Seminar	1		
	3	6	Revision									
	4	6	Revision									

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ANNUAL CURRICULAR PLAN													
DEPARTMENT: BOTANY					CLASS: III BZC			SEMESTER: VI		YEAR: 2021-2022		PAPER: VIII B	
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: ETHNOBOTANY AND MEDICINAL BOTANY								
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity				
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date	
FEB - 2022	4	6	<u>Unit-I</u> Introduction, concept, scope and objectives of Ethnobotany Ethnobotany as an interdisciplinary science Ethnobotany in the present context		Lecture Lab PPT	2 2 1			Preparation of chart on Smith classification	1			

ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: III BZC		SEMESTER: VI		YEAR: 2021-2022		PAPER: VIII B		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: ETHNOBOTANY AND MEDICINAL BOTANY							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity			Co-Curricular Activity				
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
MAR - 2022	1	6	<u>Unit-I</u> Major and minor ethnic groups or Tribal's of India Life styles Indian tribal's Plants used by the tribal populations	History of Indian ancient medicine	Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<u>Unit-I</u> Food plants, Intoxicants and beverages Resins and oils and miscellaneous uses <u>Unit-II</u> Role of Ethnobotany in modern medicine		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-II</u> Rauvolfia sepentina Trichopus zeylanicus, Artemisia annua Withania somnifera		Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	<u>Unit-II</u> Medico-ethno botanical sources in India Significance and habitat and morphology of Azadirachta indica		Lecture Lab PPT	2 2 1				1		

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**ANNUAL CURRICULAR PLAN**

**DEPARTMENT: BOTANY**

**CLASS: III BZC**

**SEMESTER: VI**

**YEAR: 2021-2022**

**PAPER: VIII B**

**NAME OF THE LECTURER: G. MANI KUMAR**

**SUBJECT: ETHNOBOTANY AND MEDICINAL BOTANY**

Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
APR- 2022	1	6	<u><b>Unit-II</b></u> Significance and habitat and morphology of Ocimum sanctum Significance and habitat and morphology of Vitex negundo, Curcuma longa Significance and habitat and morphology of Gloriosa superba, Senna auriculata		Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<u><b>Unit-II</b></u> Significance and habitat and morphology of Tribulus terrestris, Indigofera tinctoria Significance and habitat and morphology of Phyllanthus niruri, Cassia auriculata		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u><b>Unit-II</b></u> Role of ethnic groups in the conservation of plant genetic resources. <u><b>Unit-III</b></u> Sharing of wealth concept with few examples from India. Biopiracy, Intellectual Property Rights and Traditional Knowledge		Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	<u><b>Unit-IV</b></u> Definition and Scope-Ayurveda, History, origin, panchamahabhutas, saptadhatu and tridosha concepts, Rasayana, plants used in ayurvedic treatments.	Charaka	Lecture Lab PPT	2 2 1			Assignment	1		

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: III BZC		SEMESTER: VI		YEAR: 2021-2022		PAPER: VIII B		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: ETHNOBOTANY AND MEDICINAL BOTANY							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
MAY- 2022	1	6	<b>Unit-IV</b> Siddha: Origin of Siddha medicinal systems, Basis of Siddha system, plants used in Siddha medicine. Unani: History, concept: Umoor-e- tabiya, tumors treatments/ therapy, polyherbal formulations (in brief)	Agasthya	Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<b>Unit-V</b> Definition: endemic and endangered medicinal plants Red list criteria In situ conservation: Biosphere reserves,	Need of Conservation	Lecture Lab PPT	2 2 1			Seminar	1		
	3	6	<b>Unit-V</b> Sacred groves, National Parks. Ex situ conservation: Botanical Gardens.		Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	Revision									

ANNUAL CURRICULAR PLAN													
DEPARTMENT: BOTANY					CLASS: I BZC			SEMESTER: VI		YEAR: 2021-2022		PAPER: VIII C	
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: PHARMACOGNOSY AND PHYTOCHEMISTRY								
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity				
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date	
FEB - 2022	4	6	<u>Unit-I</u> Definition, Importance, Classification of drugs. Chemical and Pharmacological, Drug evaluation methods	Brief account on Azolla	Lecture Lab PPT	2 2 1			Preparation of chart on Smith classification	1			

ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: I BZC		SEMESTER: VI		YEAR: 2021-2022		PAPER: VIII C		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: PHARMACOGNOSY AND PHYTOCHEMISTRY							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity			Co-Curricular Activity				
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
MAR - 2022	1	6	<b><u>Unit-II</u></b> Organoleptic and microscopic studies with reference to nature of active principles and common adulterants of <i>Alstonia scholaris</i> (bark), <i>Adhatoda vasica</i> (leaf),		Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<b><u>Unit-II</u></b> Organoleptic and microscopic studies with reference to nature of active principles and common adulterants of <i>Strychnos nuxvomica</i> (seed) <i>Rauwolfia serpentina</i> (root)		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<b><u>Unit-II</u></b> Organoleptic and microscopic studies with reference to nature of active principles and common adulterants of <i>Zinziber officinalis</i> and <i>Catharanthus roseus</i>		Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	<b><u>Unit-III</u></b> Definition of primary and secondary metabolites and their differences Major types - terpenes, phenolics, alkaloids, terpenoids, steroids. A brief idea about extraction of alkaloids		Lecture Lab PPT	2 2 1				1		

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**ANNUAL CURRICULAR PLAN**

DEPARTMENT: BOTANY				CLASS: I BZC		SEMESTER: VI		YEAR: 2021-2022		PAPER: VIII C		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: PHARMACOGNOSY AND PHYTOCHEMISTRY							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
APR- 2022	1	6	<u>Unit-III</u> Origin of secondary metabolites – detailed account of acetate pathway, Mevalonate pathway, Shikimate pathway		Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<u>Unit-IV</u> Phenols and phenolic glycosides structural types, biosynthesis, importance of simple phenolic compounds tannins, anthraquinones, coumarins and furanocoumarins,		Lecture Lab PPT	2 2 1			Assignment	1		
	3	6	<u>Unit-IV</u> flavones and related flavonoid glycosides anthocyanins, betacyanins, stilbenes, lignins and lignans). Steroids, sterols, saponins, withanolides, ecdysones, cucurbitacins		Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	<u>Unit-IV</u> Biosynthesis, commercial importance of Steroids Alkaloids: Different groups, biosynthesis, bioactivity. Volatile oils, aromatherapy		Lecture Lab PPT	2 2 1			Assignment	1		

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ANNUAL CURRICULAR PLAN												
DEPARTMENT: BOTANY				CLASS: I BZC		SEMESTER: VI		YEAR: 2021-2022		PAPER: VIII C		
NAME OF THE LECTURER: G. MANI KUMAR					SUBJECT: PHARMACOGNOSY AND PHYTOCHEMISTRY							
Month	Week	Hours available	SYLLABUS / TOPIC	Additional Input/value Addition	Curricular Activity				Co-Curricular Activity			
					Activity	Hours Allotted	Whether Conducted	If not Alternate Date	Activity	Hours Allotted	Whether Conducted	If not Alternate Date
MAY- 2022	1	6	<u>Unit-V</u> Vaccines, toxins and toxoids, antitoxins, immune globulins, antiserums, Vitamins, Antibiotics – chemical nature, mode of action		Lecture Lab PPT	2 2 1			Seminar	1		
	2	6	<u>Unit-V</u> Pharmacological action of plant drugs Tumour inhibitors, PAF antagonists, Antioxidants		Lecture Lab PPT	2 2 1			Seminar	1		
	3	6	<u>Unit-V</u> Phytoestrogens and others. Role of different enzyme inhibitors.		Lecture Lab PPT	2 2 1			Assignment	1		
	4	6	Revision									