### GOVERNMENT DEGREE COLLEGE RAJAMPETA DEPARTMENT OF BOTANY



### ANNUAL CURRICULAR PLAN

2023-2024

S.BHASKARRAO

**LECTURER IN BOTANY** 

### Semester Curricular Plan (Lecturer wise):2023-2024

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	Syllabus topic	Organization of apical menstems Tunica-carpus theory and Histogen theory	Tossue system Epidemal lissue system ground and Vascular tissue system	Anomalous secondary growth in Boerhaavia and Dracaena.	Study of timbers of economic importance : teak ,Red Sander and rose wood.	Structure of anther wall aand types of tapeturn	Microsporogenesis and development of male gametophyte.
Additional Input/ Value Addition Provided / Taught		Types of menstematic tissues		Anomalous secondary growth in Nycthus	Structure of wood	an and an analysis of the second seco	Types of Pollen Grain
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### Semester Curricular Plan (Lecturer wise):2023-2024

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Additional Curric Input/ Value	Syflabus topic	megasporogenesis; monosporic (Polygorum), bisporic (Allum) and letrasporic (Peperomia) types of embryo sacs, Outlines of pollination, pollen – pistil interaction and fertilization	Endosperm Types and biological importance-Free nuclear cellular helobialand Ruminate Development of Dicot (Capsella bursa-pastoris) embryo. Ecology: definition, branches and significance of ecology.	Dasara holidays	Ecosystem: Concept and components, energy flow, food chain, Food web, Ecological pyramids.  Plants and environment: Climatic (light and temperature), edaphic and biotic factors.	
Additional Input/ Value	Addition Provided /taught	Опиза ћуре об Етвоуровас			Precipitation	Magnida
Curricular Activity	Activity Conducted		Senior		Sona	
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### semester Curricular Plan (Lecturer wise):2023-2024

Name of the Lecturer: S.Bhaskarrao

Academic Year:2023- 2024 Class: II B.Sc (BZC&BCCs)

Subject: BOTANY Semester: III Paper : Anatomy , embryology of Angiosperm and Plant ecology , Biodiversity

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2+2	#	4+4	#	4+4	Hours availa ble	
Biodiversity Hot spots in India. Biodiversity in North Eastern Himalayas and Western Ghats	Biodiversity: Basic concepts, Convention on Biodiversity - Earth Summit. Value of Biodiversity; types and levels of biodiversity and Threats to biodiversity	Concepts of productivity: GPP, NPP and Community Respiration Secondary production, P/R ratio and Ecosystems.	Community ecology: Frequency, density, cover, life forms, biological spectrum	Ecological succession:Hydrosere and Xerosere Population ecology: Natality, mortality, growth curves, ecotypes, ecads	Syllabus topic	
Biodiversity Hot Spots in World				Types of Ecotones		Additional Input/ Value Addition Provided /taught
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### Semester Curricular Plan (Lecturer wise):2023-2024

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### Annual Curricular Plan (Lecturer wise):2023-24

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	Polymorphic cell organelles(plasmids),Ultrastru ctureultrastructure of chloroplast, plasmids.	,Ultra structure of cell wall.Ultrastructure of plasmamembrane, and and various theories on its organization	Cell theory,Prokaryotic cell VS Eukaryotic cell,Plantc ell VS Animal cell.Abrief account on Ultra structure of a plant cell	2	Syllabus topic
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## Annual Curricular Plan (Locturer wise) 2023-244433339

Name of the Lecturert S, thaskarraoAcademic Year 2023 - 2024ClassII BZC Subject: BOYANYSemester: Cell biology, Genetic and plant breeding

No Month	Week	Hours	Syllabus topic	BAdditional Input/ Value Addition Provided		Curricular Act Activity	Curricular Activity Activity Hours	Curricular Activity  Activity Hours Whether Conducted allotted conducted	Curricular Activity  Activity Hours Whether If not,	Curricular Activity  Conducted allotted conducted alternat Conducted	à	Activity	Curricular Activity  Conducted allotted conducted alternat Conducted allotte conducted
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and the second s	•	Î	drief account of chromosomal aberration-structure and numerical changes organization of DNA (chromosomes, (solenoid and Nucleosome models)	e manuscripti, politica in anticolor del construction del	operate spiriture and the constant		of gath, and gath and			Quiz	Quiz 1	Quiz 1	Quiz 1
	<b>♣</b>	1	Mendels laws of inheritance incomplete duminative and CD dominance multiple alleles,	And the second second second second	lst internal examination	nai ation	n <sub>a</sub> ri ation	ation	ation	ation	ation	ation	rngi atlan
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#### Annual Curricular Plan (Lecturer wise):2023-24

ame of the Lecturer: S,BhaskarraoAcademic Year:2023 – 2024ClassII BZC Subject: BOTANYSemester: Cell biology,Genetic and plant breeding

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			march		1	Month
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74	‡	‡	3+2	1+2	O	Hours
plant introduction and acclimatization.Definition procedure ;application and uses; advantages and limitation of mass selection,	Regulation of gene expression in prokaryotes-Lac operon .Plant breeding and its scopes.Genetic basis of plant breeding.	Brief account on Transcription types and function of RNA, Gene concepts and gene code and translocation,	Watson and crick models of DNA, Brief account on DNAReplication, Brief account of Transcription,	Concepts of material inbriheritance .	ă.	Syllabus topic
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Signature of the Lecturer

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### Annual Curricular Plan (Lecturer wise):2023-24

	Month		April			
	Week	-	2	w	4	
	Hours availab le	4+4	3+2	#		
	Syllabus topic	Definition,; application and uses; advantages and limitation of Pure line selection and clonal selection.	Hybridization-schemes, and technique; Heterosis (hybrid Vigour).	A brief account molecular breeding. DNA markers inplantbreeding BAPD, RFLP,		
BAddition al Input/ Value	Provided /taught					
Curricular Activity	Activity Conducted	Seminal				
dvity	Hours allotted	-				
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#### nnual Curricular Plan (Lecturer wise):2023-2

Name of the Lecturer: S,Bhaskarrao Academic Year:2023 – 2024 Class:I Botany major Subject: BOTANYSemester: II Paper:Non vascular plants

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		<b>и</b>			
2 1		2+0	3+2	s avail able	
	Life cycle inAlgae.Ecological and Economic importance of Algae.	Algae flagella.reserve Food material, Classification of Algae, F, E. Fritsch and Lee Thallus organization and	General Charctestrics of Alge, occurrence and Distribution, Cellstructure, Pigments.	Synaous topic	
		Semine		Activity Conducted	Curricular Activity
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				Activity Conducted	Co-curricular Activity
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Signature of the Lecturer

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#### Annual Curricular Plan (Lecturer wise):2023-24-

ecturer: S.Bhaskarran Academic Vear-2013 - 2014 Class I Battan Maion Subject BOTANY Semester II Dance Non Versuli

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			F		Month	
М	4	ω	2	-	Week	
2+2	3+2	3+2	3+2	1+2	s avail able	4
AinsworthClassification Thallus organition and Nutrition in Fungi,	Culture and cultivation of Chlorella, Culture and Cultivation of Chlorella Generalcharact estrics of fungi and Ainsworth Classification.	Occurrenceand structure of and Life cycleOfpolysiphonia,Abri ef Accountof Bacillariophyceae,	Occurrence and structure of and Life cycle of Ectocarpus, and vauchena	Occurrence and structure of and Life cycle of Spirogyra.	Syllabus topic	
		8 4			/taught	Input/ Value Addition Provided
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Signature of the Lecturer

### Annual Curricular Plan (Lecturer wise):2023-24

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Occurrence structure andstructure Reproduction of lichen.	Occurrence structure and structure Reproduction and life cycle of penicilium, And Puzzinia.	Occurrence structure and structure and structure Reproduction and life cycle of physophora	Ecological and economic importance of Fungi. Occurrence structure and reproduction and life cycle of phytophora .	Thallus organization, & Mutrition Fungl reproduction in fungi Heterothallism.		Syllabus tonic
						Additional Input/ Value Addition Provided / Laught
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#### Annual Curricular Plan (Lecturer wise):2023-24

Name of the Lecturer: Academic Year:2023 - 2024 Class: I Botany Major Subject 80TA

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		Cological Beconomic Importance of Lichens.		General characteries of Bryophytes;Sothmalor classification	Occurrence morphology anatomy, reproduction and life cycles of		anatomy, reproduction	life cycles of funaria.	funaria. General account on evolution of sporophytes in Bryophyte.
Value Addition Provided /taught			Seminal		Seminal				Seminal
Curricular Activity	Activity Conducted		-		-				1
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Co-curricular Activity	Activity Conducted						Mental	program	
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Remar ks	If not, alternate date								

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