

GOVERNMENT DEGREE COLLEGE ,RAMPACHODAVARAM

DEPARTMENT OF FORESTRY

MINOR PAPER 2 -FORESTRY 2025-2026

SILVICULTURE , WOOD ANATOMY AND DENDROLOGY - SEMESTER III

S.NO	Month	Week	Hours Available	Syllabus topic	Additional input/ Value Addition Provided	CURRICULAR ACTIVITY				O-CURRICULAR ACTIVITY				REMARKS
						Activity conducted	Hours allotted	Whether conducted	If not, alternate date	Activity conducted	Hours allotted	Whether conducted	If not, alternate date	
1	JULY	1	3+2	INTRODUCTION		LECTURE	2							
				SYLLABUS AND MODEL PAPERS			3							
		2	3+2	INTRODUCTION CLASS		LECTURE	4							
				INTRODUCTION TO SILVICULTURE,DEFINITION,OBJECTIVES AND SCOPE:TREES AND THEIR DISTINGUISHING FEATURES,TAXONOMIC CLASSIFICATION OF MAJOR TREE SPECIES		LECTURE	1							
		3	3+2	SOIL MOIESTURE INFLUENCE ON FOREST PLANTS:PHYSIOGRAPHIC FACTORS-INFLUENCE OF ALTITUDE,LATITUDE,ASPECT AND SLOPE OFN VEGETATION		LECTURE	4			ASSIGNM	1			
		4	3+2	BIOTIC FACTORS INFLUENCE ON PLATS,INSECTS,WILD ANIMALS,MAN AND DOMESTIC ANIMALS ON FOREST VEETATION		LECTURE	4							
2	AUGUST	1		OPERATIONS		LECTURE				ASSIGN	1			

			4+2	FOREST, WEEDING-KINDS OF WEEDING: IMPACTS OF CONTROLLED BURNING AND WEEDING		LECTURE	4							
		2	3+2	RELEASE OPERATIONS- SINGLING, CLEANING-LIBERATION CUTTING-GIRDLING-CHEMICAL TREATMENT-PEELING		LECTURE				SEMINAR	1			
		3	3+2	THINNING-KINDS OF THINNING- IMPROOVEMENT FELLING- SALVAGE CUTTINGS-PRUNING- POLLARDING, LOPPING										
		4	3+2	WOOD ANATOMY: THE SECONDARY GROWTH IN WOODY PLANTS, MECHANISM OF WOOD FORMATION IN GENERAL AND WITH SPECIEL REFERANCE TO TYPICAL DICOT STEM		LECTURE	4			ASSIGN	1			
				TRANSFORMATION OF SAP WOOD TO HEART WOOD, FACTORS EFFECTING TRANSFORMATION, PHYSICAL FETURES OF WOOD		LECTURE								
3	SEPTEMB	1	4+2	PHYSICAL PROPERTIES OF WOOD		LECTURE	4							
				ABNORMALITIES IN WOOD		LECTURE				QUIZ-1	1			
		2	4+2	DENDROLOGY 1 DEFINITION, GENERAL FORM OF WOODY TRUNK AND DEVIATIONS LIKE BUTTRESSES, FLUTES, CROOKS ETC		LECTURE								
				MORPHOLOGY AND BARK OF COMMON INDIAN TREES INCLUDING TYPES OF EXFOLIATION PETERNS IN BARK		LECTURE	4			ASSIGN	1			
				SECONDARY PRODUCTS OF WOOD		LECTURE								
		3	4+2	COMMON TREES YEILDING TANNINS, GUMS, RESINS AND OTHER SECONDARY PRODUCTS		LECTURE	3			SEMINAR	1			
				DENDROLOGY 2		LECTURE								

		4	4+1	HARBARIUM TECHNIQUES:COLLECTION,PROCES SING,AND PRESERVATION OF PLANT MATERIAL		LECTURE					ASSIGNM	1				
				GENERAL STUDY OF ARBORETUM,PALMATUM,FRUITISET UM,BAMBOSETUM AND XYLERIUM		LECTURE										
				METHODS OF MEASURING DIOMETER,GIRTH,VOLUME OF TREES YEILD CALCULATION		LECTURE										
	4 OCTOBER	3	4+2	TYLOSIS AND THEIR IMPORTANCE IN THE UTILIZATION OF WOOD PRODUCTS		STUDY HOURS										
				REVISION												
		4	4+2	REVISION												
				Semester end Theory exams												
				Semester end Theory exams												

Signature of the lecturer

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				LITTER PRODUCTION, DECOMPOSITION		LECTURE	2						
2	AUGUST	1	4+1										
				MEASUREMENT OF FOREST PRODUCTIVITY		LECTURE	2			ASSIGEME	1		
				ECOLOGICAL SUCCESSION, FOREST DISTURBANCES, FOREST FRAGMENTATION									
		2	4+2	FOREST ECOSYSTEM MANEGEMENT		LECTURE	1						
				HISTORY OF FOREST MANEGEMENT IN INDIA, JOINT FOREST MANEGEMENT, FOREST FIRE, PLANTATION FORESTRY									
		3	4+2										
				REMOTE SENSING TECHNIQUE IN FORESTS		LECTURE	1			SEMINAR-	2		
		4	4+2	DEFORESTATION AND APPROACHES TO FOREST CONSERVATION									
				CHANGING CLIMATE AND THEIR IMPACT ON FOREST AND SOIL HEALTH		LECTURE	1			GUEST LEC	1		
3	SEP	1	4+2	BIODIVERSITY CONSERVATION		LECTURE	2						
				INDIAN INNOVATIVES IN B.D CONSERVATION		LECTURE	1			ASSIGEME	1		

		2	4+1	PLANT VARIETIES PROTECTION FARMER'S RIGHTS	LECTURE	1							
		3	4+1	ORGANIZATIONS AND PROTOCOLS OF BIODIVERSITY	LECTURE	1							
				RAMSAR CONVENTION ON WETLANDS	LECTURE	1			SEMINAR-	3			
		4	4+2	CARTAGENA PROTOCOLS ON BIOSAFETY	LECTURE	2							
				BASAL CONVENTION\	LECTURE	2			ASSIGEME	1			
4 OCT		1	4+2	CARTAGENA PROTOCOL ON BIOSAFETY, CONTROL OF WASTES AND THEIR DISPOSAL	LECTURE	2							
				MONTREAL PROTOCOL, IPR	LECTURE	2							
		2	4+2	REVISION	STUDY HOURS								
		3	4+1	REVISION	STUDY HOURS								
				SEMESTER END EXAMINATION									

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ANNUAL CURRICULUM PLAN 2025-26

MINORPAPER-6 AGROFORESTRY SEMESTER-V

S.NO	Month	Week	Hours Available	Syllabus topic	Additional input/Value Addition Provided /taught	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY				REMARKS	
						Activity conducted	Hours allotted	Whether conducted	If not, alternate date	Activity conducted	Hours allotted	Whether conducted	If not, alternate date		
1	JULY	1	3	INTRODUCTION		LECTURE	1								
				SYLLABUS AND MODEL PAPER		LECTURE	1								
				BASIC CONCEPT OF AGROFORESTRY		LECTURE	1								
		2	3	SUSTAINABLE LAND USE MANEGEMENT		LECTURE	3			ASSIGEMEN	1				
		3	4+2	DEFINATION,SCOP,HISTORY		LECTURE	2			GENERAL Q	1				
		4	4+1	HISTORY OF AGROFORESTRY:SOCIAL,ECOLOGICAL ,ECONOMIC REASONS FOR AGROFORESTRY											
2	AUGUST	1	4+1	AGROFORESTRY SYSTEMS		LECTURE	2								
				TRADITIONAL AGROFORESTRY		LECTURE	2								
		2	4+1	LAND USE CLASSIFICATION		LECTURE	2			ASSIGEMEN	1				
				SPECIES USED IN AGROFORESTRY											
		3	4+2	SPECIES USED IN AGROFORESTRY		LECTURE	1								
				PLANTATION AGRICULTURE		LECTURE	1			SEMINAR-1	2				
				PLANTATION FORESTRY		LECTURE	1			GUEST LECT	1				

		4	4+2	MULTIPURPOSE TREES AND NITROGEN FIXING TREES,FODDER,FUEL WOOD TREES										
3	SEPTEMBER	1	4+2	SELECTION OF FODDER TREES		LECTURE	2							
				TREE CROP INTERACTIONS		LECTURE	1			ASSIGEMEN	1			
		2	4+2	POSITIVE INTERACTIONS IN AGROFORESTRY		LECTURE	1							
		3	4+2	NEGATIVE INTERACTIONS IN AGROFORESTRY		LECTURE	1							
				INDUSTRIAL AGROFORESTRY		LECTURE	1			SEMINAR-2	3			
		4	4+1	ENERGY PLANTATIONS		LECTURE	2							
				HIGH DENSITY PLANTS		LECTURE	2			ASSIGEMEN	1			
4	OCT	1	4+2	REVISION		LECTURE	2							
				REVISION		LECTURE	2							
		3	4+1	SEMESTER END EXAMINATION		STUDY HOURS								
				SEMESTER END EXAMINATION										

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FOREST PROTECTION - SEMESTER IV

S.NO	Month	Week	Hours Available	SYLLABUS TOPIC	Additional input/Value Addition	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY				REMARKS
						Activity conducted	Hours allotted	Whether conducted	If not, alternate date	Activity conducted	Hours allotted	Whether conducted	If not, alternate date	
1	DECEMBER	1	3+2	INTRODUCTION		LECTURE								
				SYLLABUS AND MODEL PAPERS										
		2	3+2	UNIT-I FOREST FIRES -CONTROL INTRODUCTION ,IMPORTECE OF PROTECTION IN INDIAN FORESTRY CLASSIFICATION OF INJURIOUS AGENCIES		LECTURE								
		3	3+2	INJURY TO FOREST DUE TO FIRES,CAUSES AND CHARACTER OF FOREST FIRES,FIRE PREVENTION,FIRE SUPPRESSION		LECTURE				ASSIGNMENT-1	1			
		4	3+2	FIRE FIGHTING EQUIPMENT ,FIRE CONTROL POLICY AND OBJECTIVES,FIRE FIGHTING IN OTHER COUTRIES		LECTURE								
2	JANUARY	1	3+2	UNIT -2 HUMAN ACTIVITIES IN FORESTS INJURY TO FOREST DUE TO MAN,LOPPING,CUTTING FOR FUEL WOOD		LECTURE								
		2	3+2	DIFFERENT TYPES OF ENCHROACHMENT,CONTROL OF ENCHROACHMENT,ILLEGAL FELLING OF TREES,CONTROL OF LEGISLATION		LECTURE				ASSIGNMENT-2	1			
		4	3+2	LIVE FENCES WITH SPECIAL REFERENCE TO CAESALPINIA BANDUC		LECTURE								
				UNIT-3 WEED AND DISEASE MANEGEMENT ,FOREST WEEDS AND WEED MANEGEMENT,MANEGEMENT OF WOODY CLIMBERS,PARASITES AND WOODY CLIMBERS		LECTURE								
3	FEBRUARY	1	3+2	BARK OF COMMON INDIAN TREES		LECTURE				ASSIGNMENT-3	1			
				SECONDARY PRODUCTS OF WOOD		LECTURE								
		2	3+2	IMPORTENCE OF FOREST PATHOLOGY,TREE DISEASE CLASSIFICATION		LECTURE				SEMINAR-1	2			

		3	3+2	PRINCIPLES OF TREE DISEASE MANAGEMENT ,CAUSES AND SYMPTOMS,LOSSES DUE TO FOREST TREE DISEASES	LECTURE									
		4	3+2	UNIT-4 DISEASES OF FOREST PLANTS ETIOLOGY,SYMPTOMS,MODE OF SPREAD,EPIDEMIOLOGY AND MANEGEMENT,INCLUDING CHEMICAL BIOLOGICAL,CULTURAL AND SILVICULTURAL PRACTICES	LECTURE			ASSIGNMENT-4	1					
4	MARCH	1	3+2	ROOT DISEASES,STEM DISEASES,FOLIAR DISEASES	LECTURE									
		2	3+2	UNIT-5 FOREST ENTOMOLOGY ,FOREST ENTOMOLOGY IN INDIA,CLASSIFICATION OF FOREST PESTS,TYPES OF DAMEGES AND SYMPTOMS,FACTORS FOR OUT BREAK OF PESTS	LECTURE									
		3	3+2	METHODS AND PRINCIPLES OF PEST CONTROL:SILVICULTURAL,LEGAL,BIOLOG ICAL AND CHEMICAL	LECTURE									
		3		PRINCIPLES AND TECHNIQUES OF INTEGRATED PEST MANEGEMENT IN FORESTS:METHODS AND PRINCIPLES OF PEST CONTROL :MECHANICAL AND PHYSICAL	LECTURE									
		4	3+2	Grand tests	LECTURE									
5	APRIL			Semester end Theory exams										

Signature of the Lecturer

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				CAPTIVE BREEDING: AIMS, PRINCIPLES, METHODS, ROLE OF GOVERNMENT AND NON GOVERNMENTAL ORGANIZATIONS IN CONSERVATION										
		3	3+2			LECTURE								
		4	3+2	DEMONSTRATIONS		LECTURE								

Signature of the Lecturer

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ANNUAL CURRICULUM PLAN 2025-26

BOTANY PAPER-1 ANATOMY AND EMBRIOLOGY OF ANGIOSPERMS - SEMESTER -IV

S.NO	Month	Week	Hours Available	Syllabus topic	Additional input/Value Addition	CURRICULAR ACTIVITY				CO-CURRICULAR ACTIVITY				REMARKS
						Activity conducted	Hours allotted	Whether conducted	If not, alternate date	Activity conducted	Hours allotted	Whether conducted	If not, alternate date	
1	DECEMBER	1	3+2	INTRODUCTION		LECTURE								
				SYLLABUS AND MODEL PAPER		LECTURE								
				UNIT-1 TISSUES IN PLANTS		LECTURE								
				MERISTAMETIC TISSUES:DEFINITION,CLASSIFICATION,STRUCTURE AND FUNCTIONS		LECTURE								
		2	3+2	APICAL MERISTEMS :GENERLISED STRUCTURE OF SHOOT APEX,THERIES ON ORGANIZATION OF SHOOT APICAL MERISTEM-APICAL CELL THEORY		LECTURE				ASSIGEMENT-1	1			
				TUNICA CARPOUS THEORY AND HISTOGEN THEORY		LECTURE								
		3	3+2	PERMANENT TISSUES (SIMPLE AND COMPLEX)		LECTURE				SEMINAR-1	2			
				BRIEF ACCOUNT OF PLANT SECRETORY TISSUES		LECTURE								
		4	3+2	UNIT:2 ANOMALOUS GROWTH IN PLANTS		LECTURE				ASSIGEMENT-2	1			
				TISSUE SYSTEMS-EPIDERMAL,GROUND AND VASCULAR,ANAMALOUS SECONDARY GROWTH IN BETA VULGHARIS		LECTURE								
				ANAMALOUS SECONDARY GROWTH IN STEMS OF BOERHAVIA AND DRACAENA		LECTURE								
2	JANUARY	1	3+2	STUDY OF TIMBERS OFECONOMIC IMPORTENCE-TEAK,RED-ANDERS AND ROSE WOOD		LECTURE				QUIZ-1	1			
				APPLICATIONS OF ANATOMY IN PLANT SYSTEMATICS,FORENSICS AND PHARMACOGNOSY		LECTURE								
				UNIT-3 ANTHOR AND POLLEN		LECTURE								
		2	3+2	ANTHER :STRUCTURE AND FUNCTIONS OF ANTHOR WALL ,MICRO-SPOROGENESIS CALLOSE AND ITS SIGNIFICANCE		LECTURE								
						LECTURE								
		4	3+2	POLLEN WALL PROTEINS :POLLEN VIABILITY,STORAGE AND GERMINATION, ABNORMAL FEATURES:PSEUDOMONADS,POLYADS,MASSULAE,POLLINIA		LECTURE				SEMINAR-2	2			

				UNIT-4 OVULES, FERTILIZATION AND ENDOSPERM	LECTURE								
				STRUCTURE AND TYPES OF OVULES, MEGASPOROGENESIS: MONOSPORIC, BISPORIC, AND TETRASPORIC TYPES OF EMBYOSACS	LECTURE								
3	FEBRUARY	1	3+2	OUTLINES OF POLLINATION: SELF INCOMPATIBILITY-BASIC CONCEPTS: METHODS OF OVERCOME SELF INCOMPITABILITY	LECTURE				ASSIGEMENT-3	1			
				DOUBLE FERTILIZATION IN ANGIOSPERMS- PROCESS AND CONSEQUENCES	LECTURE								
		2	3+2	PEISPERM: ENDOSPERM-TYPES AND BIOLOGICAL IMPORTANCE	LECTURE								
				UNIT-5 EMBRYOGENY AND SEEDS	LECTURE				ASSIGEMENT-4	1			
		3	3+2	EMBRYOGENY IN DICOTS	LECTURE								
		4	3+2	EMBRYOGENY IN MONOCOTS	LECTURE					1			
4	MARCH	1	3+2	SEED STRUCTURE IN MONOCOT AND DICOT	LECTURE								
		2	3+2	IMPORTANCE OF SEED AND SEED DISPERSAL	LECTURE								
		3	3+2	POLY EMBROYONY AND APOMIXIS	LECTURE								
				INTRODUCTIO OF APOMIXIS, CLASSIFICATION CAUSES AND APPLICATIONS	LECTURE								
		4	3+2										

Signature of the Lecturer

Signature of the Principal