	Seme	of the teach ster: I				Donorel	Class: SYB.Sc					
	Subje	ct: Taxonon	y Of Ang	iosperms		Paper:I		Part II: Evaluation of Pla	ın			
				Part I	: Teaching	Plan	7	8	9	10		
	1	2	3	No. of	No. of	Topics to be taught	No. of	Topics taught	Deviation	Remarks		
	Sr.	Month	Week	working days	periods_ available		periods engaged		in periods			
	-1	August 2019	1 & 2	12	8	Introduction to Plant Taxonomy Definition, scope, objectives and importanceIdentification, classification, nomenclature Concept of Systematics Systems of classification a)Artificial system- Carl Linnaeus; b)Natural system-Bentham and Hooker, c) Phylogenetic system- Engler, and Prantl	8	Introduction to Plant Taxonomy Definition, scope, objectives and importanceIdentification, classification, nomenclature Concept of Systematics Systems of classification a)Artificial system- Carl Linnaeus, b)Natural system -Bentham and Hooker, c) Phylogenetic system- Engler and Prantl c) Phylogenetic system- Engler				
. 12	2=;	August 2019	Pranil		12:2	c) Phylogenetic system. Engler and a Prantland Study of Plant Families. Annonaceae, Meliaceae, Myrtaceae, Rubiaceae, Solanaceae, Asclepiadaceae, Euphorbiaceae and Amaryllidaceae Taxonomic literature.	12	and Prantl Study of Plant Families - Annonaceae, Meliaceae, Myrtaceae, Rubiaceae, Solanaceae, Asclepiadaceae, Euphorbiaceae andAmaryllidaceae Taxonomic literature				
q		Septembers 2019		12 :==:03	5 5	Sources of data-for Systematics	5	Sources of data for Systematics				
3	Bo	September:	niclature !	listo13	6 6	Bolanical Nomenclature History Binomial nomenclature	6	Botanical Nomenclature History enclature				

	October 2019	1 & 2	12	4	Computer in taxonomy Digital /e-herbarium	4	Computer in taxonomy Digital /e-herbarium
1 1	November		6	1			Introduction to ecology
5	2019	3 & 4		5	Introduction to ecology Ecological grouping of the plants-	I company and a policy	Ecological grouping of the
	December	3 & 4	O	- 4	Xerophytes, Mesophtes And Hydrophytes	4	plants-Xerophytes, Mesophtes And Hydrophytes

Signature of Teacher

Signature of Head of Department

Department Commerce

Signature of Faculty In-charge

Incharge
Science Faculty
Arts, Science & Commerce
College; Indapur, Dist. Pune

signature of the Principal

Arts Selones & Common Control of Purp

	the teacher: Su Plant Biotechn		Z 20-T-0		Year: 2019-2020 Paper: II			Cla	ss: S.Y.B.
3c	I IAIIT DIOTECIIII	ology					8 8 8 8		
			Part I: To	eaching Pla	n	Part II: Evaluation of Plan			
-1	2	-3	4	5	6		8	9	10
Sr. No.	Month	- Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
	Structure and chlosin sud-c				Introduction to Plant Biotechnology 1. History and definition 2. Scope and importance of plant biotechnology 3. Current status of biotechnology in India. Structure and function of xylem, phloem and cambium of xylem, Plant-Tissue Culture 1 Concept of plant tissue culture and cellular totipotency 2 Basic techniques: Types of culture		Introduction to Plant Biotechnology 1. History and definition 2. Scope and importance of plant biotechnology 3. Current status of biotechnology in India. Structure and function of xylem, phloem and cambium Plant Tissue Culture 1 Concept of plant tissue culture and cellular totipotency 2 Basic techniques: Types of culture	a <u>n</u> and the time and	- 120 PM
1	March2021	3 & 4	11	5-		5	6, t	Nil	
6 2	ingeniation & telerence to: 15 April 2021	Incubation mis Applica Novepropay	dization. Sersiviti: ation	67	3. Media preparation, sterilization, inoculation & Incubation 4. Hardening and Applications with reference to: Micropropagation 5. Somaclonal variation & Haploid	7	3. Media preparation, sterilization, inoculation & Incubation 4. Hardening and Applications with reference to: Micropropagation 5. Somaclonal variation & Haploid	1	Extra lecture was conducte

1										
		a.				production	. 1.	production	7	
				era s		6. Protoplast fusion & Somatic	in .	6. Protoplast fusion & Somatic hybrids	2	
		1,				hybrids	Ì	7. Embryo rescue & Production of		
					[to	7. Embryo rescue & Production of		secondary metabolites		
and the second second second		· chamelynames		pin or contract of		secondary metabolites		8. Commercial Plant Tissue culture	to a second property of	
	11407	3-2-3-2-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3-3		Lateralia	***************************************	8. Commercial Plant Tissue culture		laboratories in Maharashtra and India.		
				7	1	laboratories in Maharashtra and				
						India.				
						Single Cell Protein (SCP)		See all a communication and the communication of th		- 44
						Concept and definition		Single Cell Protein (SCP)	//	
- 1		La sias consequence	- Tennellaine		1	2. Importance of proteins in diet		1. Concept and definition		
i						3. Production of SCP from	, l	2. Importance of proteins in diet		
						Spirulina and Yeast		3. Production of SCP from Spirulina		
						4. Importance & acceptability of		and Yeast		
						SCP		4. Importance & acceptability of SCP		
1			10 0		1	Plant Genetic Engineering	į	Plant Genetic Engineering		
			-			1. Introduction, concept		1. Introduction, concept		
			4		2	2. Tools of genetic engineering	\$ *	2. Tools of genetic engineering		
- (1 Crestriction of	January Lives		de la contraction de la contra	(restrictionenzymes, ligases, plasme		(restriction enzymes, ligases, plasmid		
		neasinid vect		,		plasmid)vectors)		vectors)		
i		1 1	una Cardamian	()		3. Gene cloning Technique		3. Gene cloning Technique		
		0				4. Applications of plant genetic	- 1	4. Applications of plant genetic		
						engineering: insect pest resistance,	25	engineering: insect pest resistance,		
						5. Abiotic stress tolerance &		5. Abiotic stress tolerance & herbicide		
				4,000		herbicide resistance	1	resistance		Extra
		4 11 2021	201	12	9.	Heroreide resistance	8		1	Lecture
	3	April 2021	3 & 4	12	. 2:	Genomics, Proteomics and		Genomics, Proteomics and		i a
		Z.EMUIDIUN F		1144		Bioinformatics		Bioinformatics		
		mannen				li Genomics-concept & types;		1 Genomics- concept & types,		
9.		in Florida in the	Comme Canal	The S.	1	2. Methods used for whole genome		2. Methods used for whole genome		
i			eri fine wind				5	sequencing		. ==
-1	5.4	May 2021	3 & 4	12	5	sequencing;	3	I sedimental B		

	es Aprillage I	yaan eyesasay aasaay ahyy	s e cataretsyn entenard	1	 3. Proteomics-concept, types 4. Methods used in proteome analysis 5. Bioinformatics-concept, database and its classification, data retrieval tools. 		3. Proteomics-concept, types4. Methods used in proteome analysis5. Bioinformatics-concept, database and its classification, data retrieval tools.		
£	May 2021	1 & 2		5	Bioremediation 1 Introduction and concept, Microbial remediation 2. Phytoremediation Biofuel technology 1. Definition, Concept and types of Renewable and nonrenewable energy sources 2. Definition and concept of Biogas, Bioethanol & Biobutanol, 3. Biodiesel & Biohydrogen	5	Bioremediation 1 Introduction and concept, Microbial remediation 2. Phytoremediation Biofuel technology 1. Definition, Concept and types of Renewable and nonrenewable energy sources 2. Definition and concept of Biogas, Bioethanol & Biobutanol, 3. Biodiesel & Biohydrogen	1	Extra lecture was conducted
	入りら Signatur	e of Teacher	pfotenti j	, aid	Signature of Head of Department Department G	Ar	Incharge	rincipa	incipal

Arts, Science and Commerce College, Indapur, Dist. Pune TEACHING AND EVALUATION PLAN

Seme	e of the tead ester: 1							Year: 201 Class: S.Y.B.	
Subj	ect: Plant A	anatomy	and Embr		Paper; I	-1-1-022-044	Part II . Evaluation of Plan	, m33. O. x 1.50	
			Part	1: Teachin	g Plan	-	e	9	10
1	2	_ 3	4	5	6	7	Topics taught	Deviation in	Remarks
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods	Topics taught	periods	
					Introduction Definition, Scope of plant anatomy Epidermal tissue system Structure, types and functions of epidermis, Stomata Enidermal outgrowths-	THE COLUMN THE PARTY OF THE PAR	Introduction Definition, Scope of plant anatomy Epidermal tissue system		
				,	Structure, types and functions of epidermis, Stomata Epidermal outgrowths-			,	
	Constitution (All Later				Mechanical tissue system a) Inflexibility, b) Incompressibility,		Mechanical tissue system a) Inflexibility, b) Incompressibility,		A Company of the Comp
) lead	vicionity.	and .	and the second		e) Inextensibility and		c) Inextensibility and		
12 1	Dec 2020	2 &	11	8	d) Shearing stress 3.2 Vascular tissue system: Structure and function of xylem, phloem and cambium	8	d) Shearing stress 3.2 Vascular tissue system: Structure and function of xylem, phloem and cambium	Nil	
			41		Normal secondary growth Introduction Normal secondary growth in dicotyledonous stems stems		Normal secondary growth Introduction Normal secondary growth in dicotyledonous stem		
	takandadi quurot vir m, barbi s	C unbi	ul crimes.		Development most annual arings, peridenn, bark, tyloses and lenticeles	Tanga.	Development of annual rings, periderm, bark, tyloses and lenticel		Extra
	2020		1	7.	Anomálous: sécondary: growth: awd	7 !	Anomalous secondary growth Introductionneted	i -	lecture was

			Causes of anomalous secondary growth Anomalous secondary growth in:		Causes of anomalous secondary growth Anomalous secondary growth in:		
			Plant Embryology ntroduction		Plant Embryology ntroduction		
			Microsporangium and male		Microsporangium and male		
			gametophyte		gametophyte		
		:	tetrasporangiate anther		tetrasporangiate anther		
			Types of tapetum		Types of tapetum		
			Sporogenous tissue		Sporogenous tissue		
			Microsporogenesis		Microsporogenesis		i iii earn
			Types of microspore tetrad	4.2.4	Types of microspore tetrad	Para serios de la	
			Male gametophyte: structure and		Male gametophyte: structure and		
Jan 1	&	0. 1	development of male gametophyte		development of male gametophyte		
3 2020 2	12	5	7 8	5	participant of the participant o	Nil	
			Megasporangium and female gametophyte Structure Types of ovules		Megasporangium and female gametophyte Structure		
Pares (II shever) He			Types of megaspore tetrads		Types of ovules		
Abjest same Andrea	erain ciure ui	-	Female gametophyte: structure of		Types of megaspore tetrads		
70114 51117 0146		Her :	typica Fembryo sacricolnyle: structure	01	Female gametophyte: structure of		
Feb 3	&		Types of embryo sacs -		typical embryo sac	the same with the second secon	
4 2020 4	-		monosporic, bisporic and		Types of embryo sacs - monosporic,		
-4	12	4.	tetrasporic	4 .	bisporic and tetrasporic		
Mar 2020 2	en e	6	Pollination and Fertilization: Introduction and definition Types of pollination Germination of pollen grain grain Entry of pollen tuber porogamy, mesogamy and chalazogamy grain Double fertilization and its and its significance cance	6 1	Pollination and Fertilization: Introduction and definition Types of pollination Germination of pollen grain Entry of pollen tube- porogamy, mesogamy and chalazogamy Double fertilization and its significance.		Extra lecture w

Endosperm and embryo Endosperm and embryo Endosperm: Types – nuclear, helobial Endosperm: Types - nuclear, and cellular, Structure of helobial and cellular, Structure of Dicotyledonous and-Dicotyledonous and Monocotyledonous embryo Monocotyledonous embryo aignature of the Principal Signature of Faculty In-charge Signature of Head of Department Signature of Teacher Principal
Arts, Science & Commerce
College Indapur, Dist Pune Incharge Science Faculty Arts, Science & Commerce College, Indapur, Dist. Pune

Name of the teacher: Suryawanshi A.V.	Year: 2019-2020	 Semester: I
Subject: Plant Physiology	Paper: II	Class: S.Y .B. Sc

			Part I: T	eaching Pla	an a		Part II: Evaluation of	Plan	
1	2	_3	4	5 .	6	7	8	9	10
Sr. No.	Month	Week	No. of working days	No. of periods available	Topics to be taught	No. of periods engaged	Topics taught	Deviation in periods	Remarks
I		3 & 4	9	6	Introduction to Plant Physiology 1. Introduction and Scope 2. Applications of plant physiology Absorption of water 1. Role of water in plants 2. Mechanisms of water absorption with respect to crop plants 3. Factors affecting rate of water absorption Ascent of sap 1. Introduction and definition	6	Introduction to Plant Physiology 1. Introduction and Scope 2. Applications of plant physiology Absorption of water 1. Role of water in plants 2. Mechanisms of water absorption with respect to crop plants 3. Factors affecting rate of water absorption Ascent of sap 1. Introduction and definition		
	t He tauta ou centiquilles, i Situations of	to be so that and	spendago storodaj schaolsta si musto		2. Transpiration pull or cohesion- tension theory, evidences and objections 3. Factors affecting ascent of sap Transpiration Definition, Types of transpiration cuticular, lenticular and stomatal 2 Structure of stomata, Mechanism of opening and closing of stomata Steward's hypothesis,	01	2. Transpiration pull or cohesion-tension theory, evidences and objections 3. Factors affecting ascent of sap Transpiration 1 Definition, Types of transpiration – cuticular, lenticular and stomatal 2 Structure of stomata, Mechanism of opening and closing of stomata – Steward's hypothesis,	Nil	

	8.					Active K+ transport mechanism Factors affecting the rate of		Active K+ transport mechanism Factors affecting the rate of		
1			. 1		1	transpiration		transpiration		3/1
1-			1		***	5. Nitrogen metabolism		5. Nitrogen metabolism 7L		
					in the second	1. Introduction and role of nitrogen		1. Introduction and role of nitrogen in		
						in plants		plants		
-			termination of			2. Nitrogen fixation by Rhizobium		2. Nitrogen fixation by Rhizobium and		1
1.						and BGA		BGA	100 M	
						3. Symbiotic nitrogen fixation,		3. Symbiotic nitrogen fixation,		
			_			nitrogenase enzyme- structure and		nitrogenase enzyme- structure and		
					:	function		function	er erer o o in	
1							Ì	Idioloit		
	-	· · · · ·		1		4. Non-symbiotic nitrogen fixation	06	Non Symbiotic ait		
						5. Importance and production	UU	Non-Symbiotic nitrogen fixation		
					-	technique of BGA		5. Importance and production		
			19			6. Denitrification, ammonification		technique of BGA		i.
		i .			i	and nitrification	1 .	6. Denitrification, ammonification and		
				-2		7. Reductive amination and		nitrification		
			1.			transamination		7. Reductive amination and		
				* ,	-			transamination		
		Ur Detel in	many and		li	6. Seed dormancy and germination		. Seed dormancy and germination		
		germinatio				germination	ry i	1. Definition, types of seed dormancy		1
					1	1. Definition, types of seed		and germination		14.
		=				dormancy and germination	*	2. Methods to break seed dormancy		
						2. Methods to break seed dormancy		a seed dormancy		Extra last
	: 5 3	Dec 2019	3 & 4	11	6	2. Methods to break seed dormancy				Extra lectu
					1.0		. :		- 1	was condu
	1		1	-		Motoballa	6	3. Metabolic changes during seed	-1	sunday
		Economical Control		-	1	Metabolic changes during seed		germination		
	1:	4 Rule Tar	Daniel Hannie	Lin	1	germination paymonormones to impro	ve .	4. Role of phytohormones to improve		07 5 94 NO
						4. Kole of phytohormones to		seed germination & Vi	****	
		January		1.5	li	improve seed germination & Vigor	1	seed germination & Vigor Index		F. Hose
	6 4	2020	1 &2	11	6	Index				
				11	110		Nil			- 1
									Nil	

		E .		1	1 1 2			
			Table 1 Company of the State of	4-1	Metabolic changes during seed	6	Physiology of flowering	the second secon
		1 1 1 1 1 1		1	germination 4. Role of phytohormones to	# 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1. Photoperiodism – Concept, definition, short day plants, long day	
					improve seed germination & Vigor	:	plants and day neutral plants.	
		· · · · · · · · · · · · · · · · · · ·			Index Physiology of flowering	1	2. Phytochrome theory, role of	6.G
	-				1. Photoperiodism – Concept,		phytohormones in induction and inhibition of flowering	
		ALCUTA AND S			definition, short day plants, long		3. Applications of photoperiodism	
	-				day plants and day neutral plants. 2. Phytochrome theory, role of	1	4. Vernalization–concept and	
	1 2				phytohormones in induction and		definition, mechanism of vernalisation, applications of	
					inhibition of flowering 3. Applications of photoperiodism	i	vernalisation and devernalization	
				i	4. Vernalization-concept and			
12 65	January 2020	3 & 4	12	6	definition,	- I-	Called Line	MILLER
	Signature				gnature of Head of Department	iiganiaSigna	ture of Faculty In-charge Signa	ture of the Principal-
	MB-	/			no of hise		£	
	1			ì.			Incharge	ncipal ce & Commerce dapur, Dist, Pune
				1	nis grand & Commission of the	Arts.Sc	cience Faculty cience & Commerce	co & Commerce
				K	Que Cons.		e,Indapur, Dist.Pune	dapur. Dist. F di
					The common of			
					a w			3 1 3 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1