

Shri Shivaji Mahavidyalaya, Barshi.
Department of Botany
Time -Table
Academic Year 2019-20

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	B.Sc. II Practical					
9.40-1.00	PAP SVM	PAP SVM	DSB SVM	DSB SVM	SPG SVM	SPG SVM PBG
10.30-11.20	--	--	--	--	--	--
11.20-12.10				I B1 SPG		
12.10-1.00	I B1 SPG				I B1DSB	
	III DSB	III- DSB	III - PAP	III- PBG	III- PBG	III- SSG
1.00-1.50	III- SVM	III- DSB	III- SSG	III- PAP	III- PAP	III- SSG
		I B1 SPG				I B1DSB
		I B2				I B2
1.50-2.40		II - SSG	II SPG			II PAP
2.40-3.30				II SPG		
3.30-4.20					II PAP	
4.20-5.10	II SSG					
	B.Sc. III Practical					
1.50-6.00	PBG	SPG	PAP		DSB	
	B.Sc. I Practical					
2.40-6.00	DSB	SSG PBG	SPG PBG	SSG PBG	SSG PBG	PAP SSG

Work load

Sr. No.	Name	Theory	Practical	Total	Signature
1	Ms. Gaikwad S. S.	5	16	21	
2	Mr. Patil P. A.	5	17	22	
3	Mr. Bhise D. S.	5	17	22	
4	Dr. Gaikwad S. P.	5	17	22	
5	Mrs. Ganje P. B.	2	25	27	
6	Mr. Mane S. V.	1	24	25	
Total				138	

Head
 Department of Botany
 Shri Shivaji Mahavidyalaya
 Barshi, Dist-Solapur

Shri Shivaji Mahavidyalaya, Barshi
Department of Botany

SYLLABUS DISTRIBUTION 2019-20

Sr. No.	Class	Sem.	Paper No.	Title of Paper	Chapters	Name of Teacher		
1	B.Sc. I	I	I	Microbiology and Phycology	All chapters	Bhise D.S.		
			II	Fungi and Archegoniate	All Chapters	Gaikwad S. P.		
		II	III	Plant Ecology	All Chapters	Gaikwad S. P.		
			IV	Taxonomy of Angiosperm	All chapters.	Bhise D. S.		
			V	Anatomy and Taxonomy of Angiosperm	Anatomy	Gaikwad S. S.		
2	B.Sc. II	III	VI	Plant Ecology	Taxonomy of Angiosperm Chapters 1,2,3,4	Patil P. A.		
			VII	Plant Physiology and cytogenetics	Chapters 5,6	Gaikwad S. P.		
		IV	VIII	Economic Botany	Plant Physiology Cytogenetics Unit: 1,2,3,7 Unit: 4,5,6	Patil P. A.		
			IX	Reproductive Biology of Angiosperms	All Chapters	Patil P. A.		
			X	Genetics	All Chapters	Bhise D. S.		
			XI	Plant Physiology	All Chapters	Ganje P.B.		
		3	B.Sc. III	V	XII	Plant Breeding	All Chapters	Gaikwad S. S.
					XIII	Molecular Biology	All Chapters	Patil P. A.
VI	XIV			Plant Biotechnology	All Chapters	Bhise D. S.		
	XV			Plant Metabolism	All Chapters	Ganje P.B. and Mane S. V.		
	XVI			Biostatistics	All Chapters	Gaikwad S. P.		

Head
Department of Botany
Shri Shivaji Mahavidyalaya
Barshi, Dist-Solapur

Mrs. Sandhya S. Gaikwad
Head & Associate Professor
Department of Botany
Shri Shivaji Mahavidyalaya,
Barshi.
Date: 30/04/2020

To,
Principal,
Shri Shivaji Mahavidyalaya,
Barshi.

Subject: Syllabus Completion report

Respected Madam,

I have completed allotted theory and practical syllabus of B.Sc. I/II/III within prescribed time during the academic year 2019-20. Copy of workload distribution is attached herewith.

Please accept it and oblige.

Thanking You,

Yours Faithfully



Mrs. Sandhya S. Gaikwad

Prakash A. Patil
Associate Professor
Department of Botany
Shri Shivaji Mahavidyalaya,
Barshi.
Date: 30/04/2020

To,
Head,
Department of Botany
Shri Shivaji Mahavidyalaya,
Barshi.

Subject: Syllabus Completion report

Respected Madam,

I have completed allotted theory and practical syllabus of B.Sc. I/II/III within prescribed time during the academic year 2019-20. Copy of workload distribution is attached herewith.


Please accept it and oblige.

Thanking You,

Yours Faithfully



Prakash A. Patil



Head
Department of Botany
Shri Shivaji Mahavidyalaya
Barshi, Dist-Solapur

Damaji S. Bhise
Assistant Professor
Department of Botany
Shri Shivaji Mahavidyalaya,
Barshi.
Date: 30/04/2020

To,
Head,
Department of Botany
Shri Shivaji Mahavidyalaya,
Barshi.

Subject: Syllabus Completion report

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I have completed allotted theory and practical syllabus of B.Sc. I/II/III within prescribed time during the academic year 2019-20. Copy of workload distribution is attached herewith.


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Yours Faithfully



Damaji S. Bhise



Head
Department of Botany
Shri Shivaji Mahavidyalaya
Barshi, Dist-Solapur

Dr. Sampatrao P. Gaikwad
Assistant Professor
Department of Botany
Shri Shivaji Mahavidyalaya,
Barshi.
Date: 30/04/2020

To,
Head,
Department of Botany
Shri Shivaji Mahavidyalaya,
Barshi.

Subject: Syllabus Completion report

Respected Madam,

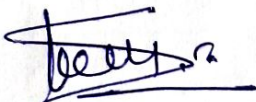
I have completed allotted theory and practical syllabus of B.Sc. I/II/III within prescribed time during the academic year 2019-20. Copy of workload distribution is attached herewith.

Please accept it and oblige.

Thanking You,

Yours Faithfully


Dr. Sampatrao P. Gaikwad


Head
Department of Botany
Shri Shivaji Mahavidyalaya
Barshi, Dist-Solapur

SHRI SHIVAJI MAHAVIDYALAYA, BARSHI.
DEPARTMENT OF BOTANY
SEMESTER TEACHING PLAN
2019-20


Name of the Teacher: **Mrs. Gaikwad S. S.**

Class: **B.Sc. III**

Name of paper: **Sem. V Paper XVI: Biostatistics**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	November	I		Vocation	
		II		Vocation	
		III	3	Introduction	
		IV	3	Basic Principles	
2	December	I	3	Statistical Methods	Practical 13 to 16
		II	3	Variables	
		III	3	Collection of Primary Data: Introduction, Types of Data, Methods of Data collection,	
		IV	3	Merits and demerits, classification of Data, tabulation and presentation of Data, sampling methods	
3	January	I	3	Measures of central tendency: Mean, Mode and median	Practical 17 to 20
		II	3	Measures of Dispersion	
		III	3	Probability: Introduction and basic concepts	
		IV	3	Probability: Kinds and measures of probability	
4	February	I	3	Statistical inference: Introduction	Practical 21-24
		II	3	Hypothesis: Students 't' test and Chi square test and its significance.	
		III	3	Revision	
		IV	3	Revision	
5	March	I		Practical examination	
		II		Examination	
		III		Examination	
		IV		Examination	
	April			Supervisions	

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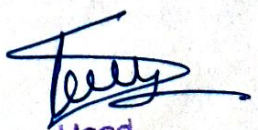

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SEMESTER TEACHING PLAN
2019-20

Name of the Teacher: **Mrs. Gaikwad S. S.**
 Class: **B.Sc. III**
 Name of paper: **Sem. V Paper XII: Plant Breeding**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	June	I	3	Admission Process	
		II	3	Admission Process	
		III	3	Admission Process	
		IV	3	Plant Breeding: Introduction, Aims and Objective Scope of plant breeding	
2	July	I	3	Methods of crop improvement Introduction, Methods,	
		II	3	Centres of origin, and domestication of crops	
		III	3	Plant genetic resources, Introduction and acclimatization	
		IV	3	Selection Methods	
3	August	I	3	Hybridization	
		II	3	Hybridization in self pollinated crops	
		III	3	Hybridization in cross pollinated crops	
		IV	3	Quantitative inheritance: Introduction, Concept and Mechanism	
4	September	I	3	Examples of inheritance of Kernel colour in wheat	
		II	3	Monogenic versus polygenic inheritance	
		III	3	Mutation and Plant breeding: Role of mutation, Role of polyploidy	
		IV	3	Role of Biotechnology in crop improvement Distant hybridization	
5	October	I	3	Revision	
		II	3	Revision	
		III	3	Revision	
		IV	3	Revision	




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SEMESTER TEACHING PLAN
2019-20


Name of the Teacher: **Mrs. Gaikwad S. S.**

Class: **B.Sc. II**

Name of paper: **Sem. IV Paper VIII: Economic Botany**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	November	I		--	
		II		--	
		III	2	Introduction	
		IV	2	Syllabus discussion	
2	December	I	2	Legumes: Chick pea	
		II	2	Legumes: Red gram	
		III	2	Legumes: Lucern and <i>Sesbania</i>	
		IV	2	Plant Fibers: Cotton	
3	January	I	2	Plant Fibers: Coir	
		II	2	Vegetable oil Sources: Ground nut and Soybean	
		III	2	Brief account and cultural practices of Ground nut and Soybean	
		IV	2	Plant perfumes and Cosmetics: Jasmine	
4	February	I	2	Plant perfumes and Cosmetics: Rose	
		II	2	Plant perfumes and Cosmetics: Aloe	
		III	2	Revision	
		IV	2	Revision	
5	March	I	2	Revision	
		II	2	Unit test	
		III			
		IV			




Head
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SHRI SHIVAJI MAHAVIDYALAYA, BARSHI.
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SEMESTER TEACHING PLAN
2019-20

Name of the Teacher: Mrs. Gaikwad S. S.

Class: B.Sc. II

Name of paper: Sem. III Paper V: Anatomy and Taxonomy of Angiosperm

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	June	I	2	-	
		II	2	-	
		III	2	Admission Process	
		IV	2	Admission Process	
2	July	I	2	Syllabus discussion	
		II	2	Meristem: Introduction and classification Function	
		III	2	Theories of structural development Apical cell theory	
		IV	2	Histogen theory, Tunica corpus theory	
3	August	I	2	Permanent tissue: Structure and function of simple tissue	
		II	2	Structure and Function of Complex tissue	
		III	2	Types of vascular bundle	
		IV	2	Types of vascular bundle	
4	September	I	2	Tissue system and their function: Epidermal Tissue system	
		II	2	Secretory tissue system	
		III	2	Mechanical tissue system	
		IV	2	Secondary body of the plant: Normal secondary growth in dicot root and stem	
5	October	I	2	Periderm, Lenticel and annual rings	
		II	2	Basic structure of wood and its types	
		III	2	Revision	
		IV	2	Revision	

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 Head
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SEMESTER TEACHING PLAN
2019-20

Name of the Teacher: **Mr. Patil P. A.**

Class: **B.Sc. III**

Name of paper: Sem. VI Paper XIII: **Molecular Biology**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	November	I		Vocation	
		II		Vocation	
		III	3	Nucleic Acid: Introduction, Historical perspective	
		IV	3	DNA as the carrier of genetic information	
2	December	I	3	The structure of Genetic material: Introduction, Structure of DNA, Salient features of Double helix	Practical 13 to 16
		II	3	Types of DNA, Denaturation and Renaturation of DNA,	
		III	3	Organization of DNA	
		IV	3	Structure and Types of RNA	
3	January	I	3	Replication of DNA: Introduction, Synthesis of DNA	Practical 17 to 20
		II	3	DNA replication, enzymes	
		III	3	Transcription: Introduction, transcription in Prokaryotes	
		IV	3	Principles of transcriptional regulation	
4	February	I	3	Regulation of Lactose Metabolism in <i>E. coli</i> .	Practical 21-24
		II	3	Eukaryotes: transcription factors, heat shock protein, steroid and peptide hormones	
		III	3	Translation: Introduction, Structure of Ribosome, Assemblage of Ribosome and mRNA, Steps in Protein synthesis.	
		IV	3	Process of protein synthesis, Post translational modification.	
5	March	I		Practical examination	
		II		Examination	
		III		Examination	
		IV		Examination	

Patil P. A.

[Signature]
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**SHRI SHIVAJI MAHAVIDYALAYA, BARSHI.
DEPARTMENT OF BOTANY
SEMESTER TEACHING PLAN
2019-20**


Name of the Teacher: **Mr. Patil P. A.**

Class: **B.Sc. III**

Name of paper: Sem. V Paper IX: **Reproductive Biology of Angiosperm**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	June	I	3	Admission Process	
		II	3	Admission Process	
		III	3	Admission Process	
		IV	3	Introduction Reproductive Development	
2	July	I	3	Anther wall: Structure and function Microsporogenesis	Practical 1 to 4
		II	3	Callose deposition and its significance Male gametophyte and development	
		III	3	NPC system Palynology and scope	
		IV	3	Ovule structure and types of ovule	
3	August	I	3	Megasporogenesis, Female gametophyte	Practical 5 to 8
		II	3	Female gametophyte development	
		III	3	Pollination and fertilization: Introduction	
		IV	3	Pollination types and significance	
4	September	I	3	Structure of stigma and style Path of pollen tube in pistil	Practical 9-12
		II	3	Double fertilization	
		III	3	Embryo, Endosperm Introduction Structure and types of endosperm	
		IV	3	Structure of monocot and dicot seed	
5	October	I	3	Seed dispersal	
		II	3	Revision	
		III		Examination	
		IV		Vocation	


Patil P.A.


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Barshi, Dist-Solapur

SHRI SHIVAJI MAHAVIDYALAYA, BARSHI.
DEPARTMENT OF BOTANY
SEMESTER TEACHING PLAN
2019-20

Name of the Teacher: **Mr. Patil P. A.**

Class: **B.Sc. II**

Name of paper: **Sem. IV Paper VII: Plant Physiology and Cytogenetics**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	November	I		--	
		II		--	
		III	2	Introduction	
		IV	2	Syllabus discussion	
2	December	I	2	Photosynthesis: Introduction and Significance	
		II	2	Photosynthetic apparatus Photosynthetic pigments	
		III	2	Light Reaction	
		IV	2	Calvin cycle,	
3	January	I	2	C4 cycle	
		II	2	CAM Pathway	
		III	2	Nitrogen Metabolism: Introduction	
		IV	2	Nitrogen Cycle	
4	February	I	2	Biological Nitrogen Fixation	
		II	2	Mechanism of Biological Nitrogen Fixation	
		III	2	Significance	
		IV	2	Revision	
5	March	I	2	Revision	
		II	2	Unit test	
		III			
		IV			

Patil

Patil P. A.

Patil

Head
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 Barshi, Dist-Solapur

SHRI SHIVAJI MAHAVIDYALAYA, BARSHI.
DEPARTMENT OF BOTANY
SEMESTER TEACHING PLAN
2019-20

Name of the Teacher: **Mr. Patil P. A.**

Class: **B.Sc. II**

Name of paper: Sem. III Paper V: **Anatomy and Taxonomy of Angiosperm**
 Paper VI: **Plant Ecology**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	June	I	2	-	
		II	2	-	
		III	2	Admission Process	
		IV	2	Admission Process	
2	July	I	2	Introduction of Syllabus	
		II	2	Morphology of Inflorescence	
		III	2	Morphology of Flower	
		IV	2	Morphology of Fruit	
3	August	I	2	Study of angiosperm families Combrataceae Asclepiadaceae	
		II	2	Study of angiosperm families Amaranthaceae Liliaceae	
		III	2	Ecological Adaptation: Introduction, Xeric adaptation	
		IV	2	Hydric and Mesic adaptation	
4	September	I	2	Pollution: Introduction, Air pollution	
		II	2	Effect and control measures of air pollution	
		III	2	Water pollution	
		IV	2	Effect and control measures of air pollution	
5	October	I	2	Revision	
		II	2	Revision	
		III	2	Revision	
		IV	2	Revision	

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Patil P. A.

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Head
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SHRI SHIVAJI MAHAVIDYALAYA, BARSHI.
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SEMESTER TEACHING PLAN
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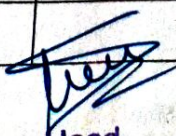
Name of the Teacher: Mr. Bhise D. S.

Class: B.Sc. I

Name of paper: Sem. I Paper I: Microbiology and Phycology

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	June	I		-	
		II		Admission Process	
		III		Admission Process	
		IV	2.5	Unit-1: Introduction of microbiology	
2	July	I	2.5	Unit-2 Microbes 2.1 Viruses: General characters, structure	Practical 1 to 4
		II	2.5	classification (plant viruses)	
		III	2.5	economic importance of viruses.	
		IV	2.5	2.2 Bacteria: General characters of bacteria, structure	
3	August	I	2.5	Economic importance.	Practical 5 to 8
		II	2.5	2.3 Mycoplasma: General characters,	
		III	2.5	Structure, classification and significance.	
		IV	2.5	Unit-3 Phycology 3.1 Introduction, general characters and classification of algae (As per Smith-1955) up to class.	
4	September	I	2.5	3.2 Economic importance of Algae	Practical 9 to 12
		II	2.5	Unit-4 Cyanophyta 4.1 General Characters	
		III	2.5	4.2 Study of Nostoc – Occurrence, Classification,	
		IV	2.5	thallus structure and reproduction.	
5	October	I	2.5	Unit-5 Chlorophyta 5.1 General Characters	
		II	2.5	5.2 Study of Spirogyra - Occurrence, Classification, thallus structure and reproduction	
		III	2.5	Revision	
		IV			

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 (Bhise D.S.)


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SEMESTER TEACHING PLAN
2019-20**

Name of the Teacher: **Mr. Bhise D. S.**

Class: **B.Sc. II**

Name of paper: **Sem. III Paper IV: Taxonomy of Angiosperm**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	November	I	2.5	--	
		II	2.5	--	
		III	2.5		
		IV	2.5	Unit 1: 1.1. Introduction	
2	December	I	2.5	1.2. Aims and Principles of Taxonomy	
		II	2.5	Unit 2: Classification 2.1. Types of classification: Artificial, Natural and Phyllogenetic.	
		III	2.5	2.2 Bentham and Hooker system of classification 2.3 Merits and demerits	
		IV	2.5	Unit 3: Identification and nomenclature 3.1 Identification of plants 3.2 Nomenclature, Binomial nomenclature of plants	
3	January	I	2.5	3.3 Principles of ICBN.	
		II	2.5	Unit 4: Herbarium and Botanical Garden 4.1 Herbarium- Steps in preparation and significance.	
		III	2.5	4.2 Botanical gardens of India- Sir J. C. Bose Botanical Garden, Calcutta	
		IV	2.5	Lead Botanical Garden of Shivaji University Kolhapur.	
4	February	I	2.5	Unit 5: 5.1 Study of Angiosperms families Systematic position, Morphological & distinguishing characters with economic importance of following families:	
		II	2.5	a) Caesalpiniaceae	
		III	2.5	b) Solanaceae	
		IV	2.5	c) Nyctaginaceae	
5	March	I	2.5	d) Liliaceae	
		II	2.5	Revision	
		III		Revision	
		IV			


(Bhise D. S.)


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SEMESTER TEACHING PLAN
2019-20

Name of the Teacher: **Dr. Gaikwad S. P.**

Class: **B.Sc. III**

Name of paper: **Sem. VI Paper XIV: Plant Metabolism**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	November	I		Vocation	
		II		Vocation	
		III	3	ATP Synthesis: Introduction, Structure of ATP molecule	
		IV	3	Mechanism of ATP Synthesis, ATP synthase, Boyers confirmational model, Rackers experiment, Jagndorfs experiments	
2	December	I	3	Carbon Oxidation: Introduction, Glycolysis, PPP, Oxidative decarboxylase, Regulation of PDH NADH shuttle,	Practical 13 to 16
		II	3	TCA cycle, Mitochondria ETC, Oxidative phosphorylation,	
		III	3	Cynide resistant respiration	
		IV	3	Carbohydrate Metabolism: Monosaccaride	
3	January	I	3	Carbohydrate Metabolism: Oligosaccaride	Practical 17 to 20
		II	3	Carbohydrate Metabolism: Polysaccaride	
		III	3	Lipid Metabolism: Introduction and Classification	
		IV	3	Saturated and Unsaturated fatty acids	
4	February	I	3	Fatty acid biosynthesis, Beta oxidation	Practical 21-24
		II	3	Gluconeogenesis during seed germination	
		III	3	Properties of Lipid	
		IV	3	Significance of Lipid	
5	March	I		Practical examination	
		II		Examination	
		III		Examination	
		IV		Examination	
	April			Supervisions	

Spm
(Dr. S. P. Gaikwad)

[Signature]
 Head
 Department of Botany
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 Barshi, Dist-Solapur

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2019-20

Name of the Teacher: **Dr. Gaikwad S. P.**

Class: **B.Sc. III**

Name of paper: Sem. VI Paper XI: **Plant Physiology**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	June	I	3	Admission Process	
		II	3	Admission Process	
		III	3	Admission Process	
		IV	3	Plant Water relation: Introduction	
2	July	I	3	Water potential and its components Water absorption- root pressure and guttation	Practical 1 to 4
		II	3	Ascent of sap cohesion tension theory	
		III	3	Transpiration: mechanism and factors affecting on transpiration	
		IV	3	Mineral nutrition: Introduction Macro and micro nutrients	
3	August	I	3	Mineral deficiency symptoms	Practical 5 to 8
		II	3	Nutrient uptake: Introduction Soil as a nutrient reservoir	
		III	3	Types of absorption	
		IV	3	Phloem transport: Introduction Site of phloem transport,	
4	September	I	3	Phloem loading and unloading Source Sink relationship	Practical 9 to 12
		II	3	Plant growth regulators: Introduction, types,	
		III	3	Chemical structure, physical role of Auxin, Gibberellin, cytokinin,	
		IV	3	Chemical structure, physical role of Abscisic acid, ethylene, CCC	
5	October	I	3	Revision	
		II	3	Revision	
		III	3	Revision	
		IV	3	Revision	

Dr. S. P. Gaikwad
(Dr. S. P. Gaikwad)

Tejas
Head
 Department of Botany
 Shri Shivaji Mahavidyalaya
 Barshi, Dist-Solapur

**SHRI SHIVAJI MAHAVIDYALAYA, BARSHI.
DEPARTMENT OF BOTANY
SEMESTER TEACHING PLAN
2019-20**

Name of the Teacher: **Dr. Gaikwad S. P.**

Class: **B.Sc. II**

Name of paper: **Sem. IV Paper VIII: Economic Botany**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	November	I		--	
		II		--	
		III	2	Introduction	
		IV	2	Syllabus discussion	
2	December	I	2	Drug yielding plant: Introduction	
		II	2	<i>Zingiber officinale</i> <i>Withania somnifera</i>	
		III	2	<i>Tinospora cordifolia</i> <i>Adathoda zeylanica</i>	
		IV	2	<i>Syzigium aromaticum</i> <i>Emblica officinalis</i>	
3	January	I	2	Natural Products: Introduction	
		II	2	Rubber: Introduction, Property	
		III	2	Rubber: Extraction and Economic importance	
		IV	2	Botanical Pesticides	
4	February	I	2	Plant Dyes: Wood, Bark	
		II	2	Plant Dyes: Root and Rhizome	
		III	2	Ornamental Plants: Seasonal, Perennial	
		IV	2	Ornamental Plants: Cacti, Succulent and Climber	
5	March	I	2	Revision	
		II	2	Unit test	
		III			
		IV			

S.P.
(Dr. S. P. Gaikwad)

[Signature]
Head
Department of Botany
Shri Shivaji Mahavidyalaya
Barshi, Dist-Solapur

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Name of the Teacher: **Dr. Gaikwad S. P.**

Class: **B.Sc. II**

Name of paper: Sem. IV Paper VII: **Plant Physiology and Cytogenetics**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	November	I		--	
		II		--	
		III	2	Introduction	
		IV	2	Syllabus discussion	
2	December	I	2	Genetics: Introduction	
		II	2	Mendelian History	
		III	2	Principles of inheritance	
		IV	2	Gene interaction: Complimentary, Suplimentary	
3	January	I	2	Gene interaction: inhibitory	
		II	2	Classical Genetics: Linkage	
		III	2	Significance of Linkage Crossing over: Mechanism	
		IV	2	Crossing over: break and exchange theory Significance	
4	February	I	2	Multiple allelism: Introduction and definition	
		II	2	Eye colour in <i>Drosophila</i> , Blood group in man	
		III	2	self-incompatibility in plant	
		IV	2	Revision	
5	March	I	2	Revision	
		II	2	Unit test	
		III			
		IV			

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Name of the Teacher: **Dr. Gaikwad S. P.**

Class: **B.Sc. I Divis**

Name of paper: **Sem. I Paper II: Fungi and Archegoniate**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	June	I	2.5	-	
		II	2.5	Admission Process	
		III	2.5	Admission Process	
		IV	2.5	Unit-1 Fungi 1.1 General characters, Nutrition and classification of fungi up to class (as per Ainsworth).	
2	July	I	2.5	1.2 Economic importance of Fungi	
		II	2.5	1.3 Study of Mucor - Occurrence, Thallus organization, classification and Life cycle.	
		III	2.5	1.4 Study of Yeast-Occurrence, Thallus organization, classification and life cycle.	
		IV	2.5	Unit 2 Archegoniate 2.1 Introduction 2.2 General characters.	
3	August	I	2.5	Unit 3 Bryophytes 3.1 General characters, and Classification (as per G. M. Smith)3.2 Study of <i>Riccia</i> - Occurrence, classification, thallus structure	
		II	2.5	Reproduction in <i>Riccia</i> 3.3 Economic importance of Bryophytes	
		III	2.5	Unit 4 Pteridophytes 4.1 General characters and classification up to class (as per G. M. Smith)	
		IV	2.5	4.2 Study of <i>Selaginella</i> Occurrence, classification, morphology of sporophyte	
4	September	I	2.5	Anatomy (stem) and reproduction 4.3 Economic importance of Pteridophyte	
		II	2.5	Unit 5 Gymnosperms 5.1 General characters and classification (As per Sporne)	
		III	2.5	5.2 Study of Cycas- Occurrence, classification,	
		IV	2.5	Morphology (Sporophyte, Corolloid root), anatomy of leaflet	
5	October	I	2.5	Reproduction of <i>Cycas</i> Structure of male and female reproductive structures.	
		II	2.5	5.3 Economical importance of Gymnosperms	
		III	2.5	Revision	
		IV			

S.P. Gaikwad
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[Signature]
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Name of the Teacher: **Dr. Gaikwad S. P.**

Class: **B.Sc. I**

Name of paper: **Sem. II Paper III: Plant Ecology**

Sr. No.	Month	Weeks	Available lectures	Theory units	Practicals
1	November	I	2.5		
		II	2.5		
		III	2.5	Unit 1: Introduction 1.1. Climatic factor- Light, Temperature, Humidity, Wind & Rainfall.	
		IV	2.5	1.2. Edaphic factor- Soil formation, Soil profile,	
2	December	I	2.5	Classification & Chemical properties of soil.	
		II	2.5	Unit 2: Ecological Adaptation 2.1. Introduction. 2.2. Hydric Adaptation. 2.3. Xeric Adaptation.	
		III	2.5	Unit 3: Plant communities 3.1. Introduction. 3.2. Forms & structure of community.	
		IV	2.5	3.3. Classification. 3.4. Qualitative and quantitative characters of community	
3	January	I	2.5	Unit 4: Ecosystem 4.1. Introduction.	
		II	2.5	4.2. Concept & type.	
		III	2.5	4.3. Components of ecosystem.	
		IV	2.5	4.4. Ecological pyramids. 4.5. Food chain and food webs.	
4	February	I	2.5	Unit 5: Ecological succession 5.1. Introduction.	
		II	2.5	5.2. Concept & process.	
		III	2.5	5.3. Hydrosere and Xerosere.	
		IV	2.5		
5	March	I	2.5	Revision	
		II	2.5	Revision	
		III			
		IV			

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 (Dr. S.P. Gaikwad)

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 Head
 Department of Botany
 Shri Shivaji Mahavidyalaya
 Barshi, Dist-Solepur