

Department of Botany

Annual Teaching Plan

2019-2020

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR. (AUTONOMOUS)

Department of Botany

**Annual Teaching Plan
(2019-2020)**

INDEX

Sr. No.	Name of Faculty	Page No.
1.	Prof. S.P.Salokhe	01-06
2.	Dr. A. R. Kasarkar	07-10
3.	Dr. J. M. Gorule	11-21
4.	Dr. A.R. Alvikar	22-27
5.	Dr. P. D. Patil	28-31
6.	Dr. L. A. Kagale	32-35
7.	Dr. S.D.Patil	36-38
8.	Dr. K.P.Patil	39-41
9.	Miss. S.S.Wadkar	42-47
10.	Miss. U.H.Godase	48-52
11.	Miss. S.G.Gurav	53-55




Head

Department of Botany
Head

Department of Botany
Vivekanand College
Kolhapur



PRINCIPAL
Vivekanand College
Kolhapur



Vivekanand College, Kolhapur (Autonomous)
 Department of Botany
Annual Teaching Plan

Academic Year: 2020-2021

Name of the teacher: **Prof. S. P. Salokhe**

Programme: **B. Sc. III**

Semester: **V**

Subject: **Botany**

Course Title: **Economic Botany**

Month: June			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Section II: Unit II: Economic Botany I	Introduction, Cereals: Legumes, Vegetables, spices
02	--	02		
Month: July			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit III: Economic Botany II	Beverages, Fiber yielding Plants,
04	--	04		
Month: August			Module/Unit:	Sub-units planned
03	--	03	Unit III: Economic Botany II	Oil yielding Plants, dye

Name and Signature of Teacher



Name and Signature of HoD
 Head
 Department of Botany
 Vivekanand College
 Kolhapur

Vivekanand College, Kolhapur (Autonomous)

Department of Botany

Annual Teaching Plan

Academic Year: 2020-2021

Name of the teacher: Prof. S. P. Salokhe

Programme: B. Sc. II

Semester: III

Subject: Botany

Course Title: Economic Botany

Month: June			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit III: Primary & Secondary Structure of plant body	Primary structure of monocot & Dicot root, stem & leaf
02	--	02		
Month: July			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit III: Primary & Secondary Structure of plant body	Anomalous secondary growth
04	--	04		
Month: August			Module/Unit:	Sub-units planned
03	--	03	Unit III: Primary & Secondary Structure of plant body	Periderm & lenticels


Name and Signature of Teacher




Name and Signature of HoD

Head
Department of Botany
Vivekanand College
Kolhapur

Vivekanand College, Kolhapur (Autonomous)
Department of Botany
Annual Teaching Plan

Academic Year: 2020-2021

Name of the teacher: Prof. S. P. Salokhe

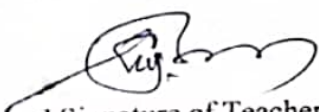
Programme: B. Sc. II

Semester: III

Subject: Botany/ Plant protection

Course Title: Study of Dicot & Monocot Weeds

Month: June			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit II: Study of Dicot & Monocot Weeds	<i>Argemone Mexicana</i> <i>Parthenum hysterophorus</i> <i>Amaranthus spinosus</i>
02	--	02		
Month: July			Module/Unit:	Sub-units planned
Lectures	Practical	Total	Unit II: Study of Dicot & Monocot Weeds	<i>Alternanthera sessilis</i> <i>Euphorbia species</i> <i>Portulaca oleraceae</i>
04	--	04		
Month: August			Module/Unit:	Sub-units planned
03	--	03	Unit II: Study of Dicot & Monocot Weeds	<i>Cyperus rotundus</i> <i>Cynodon dactylon</i>


Name and Signature of Teacher




Name and Signature of HoD

Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2019-2020 Semester: I Department: Botany

Subject: Botany/Plant Protection Course Title:

Name of the teacher: Dr. Abhijeet Rajaram Kasarkar

Month <u>July</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
I 02	—	02	Bsc-I - Unit 2 - Algae	2a - General characters
II 01	—	01	Bsc-II - Unit 3 - Taxonomic literature	2a - Introduction
II(PP) 01	—	01	Bsc II - Unit 4 - Methods of (PP) Plant Protection II.	4a - chemical methods
III 02	—	02	Bsc III - Unit -3 - Analytical tech in Plant science	3a - Microscopy
Month <u>August</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
I - 03	—	03	Bsc I - Unit 2	2B - Economic Importance, Classification
II - 04	—	04	Bsc II - Unit 3	3a - Flossa, Monograph
II - 04 (PP)	08	12	Bsc III - Unit 4 (PP)	4a - chemical methods 4b - Biological methods
III - 04	08	12	Bsc III - Unit 3	3a - Microscopy 3b - chromatography
Month <u>September</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
I - 04	—	04	Bsc I - Unit 2	2a - A - Nostoc
II - 04	—	04	Bsc II - Unit 3	<u>Spirogyra</u>
II - 04 (PP)	08	12	Bsc II - Unit 4 PP	3a - Revision Manuals Journals
III - 04	08	12	Bsc III - Unit 3	4b - Fungi, Bacteria 3b - Chromatography

Dr. Kasarkar

Name and Signature of Teacher
 (Dr. Abhijeet R. Kasarkar)

[Signature]

Name and Signature of HoD
 Head
 Department of Botany
 Vivekanand College
 Kolhapur



Annual Teaching Plan

Academic Year: 2019-2020 Semester: I Department: Botany

Subject: Botany, Plant Protection Course Title:

Name of the teacher: Dr. Abhijeet R. Kasarkar

Month: October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
I 04	-	04	Unit 2	2B. 1- Diatoms 2. Algal Biofertilizers 3a. Periodicals, Reference Books, Research Papers 4c, 4d 3C
II 04	-	04	Unit 3	
III 04 (PP)	06	20	Unit 4	
IV 04	04	08	Unit 3	
Month:			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
Month:			Module/Unit:	Sub-units planned

Abhijeet R. Kasarkar
 Name and Signature of Teacher
 (Dr. Abhijeet R. Kasarkar)

[Signature]
 Name and Signature of Head
 Head
 Department of Botany
 Vivekanand College
 Kolhapur



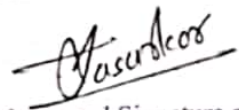
Annual Teaching Plan

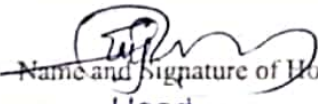
Academic Year: 2019-2020 Semester: II Department: Botany

Subject: Botany and Plant Protection Course Title:

Name of the teacher: Dr. Abhijeet R. Kasarkar

Month ... <u>November</u>			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total		
I 03	-	03	BSc I Unit 1 - Angiosperm Taxonomy	1a - salient Features 1b - Importance
II 03	-	03	BSc II Unit 4 seed dormancy and germination	4a - concept 4b - Methods
III 03 (PP)	08	11	BSc II Unit 3 Methods of weed management	3a - Mechanical Methods
III 03	04	07	BSc III Unit 1 Horticulture	1a - Introduction 1b - Methods of Propagation
Month ... <u>December</u>			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total		
I 04	-	-	BSc I Unit 1	1b - Function 1c - ICBN
II 04	-	-	BSc II Unit 4	4c - seed germination 4d - factors affecting on seed germination
III 04 (PP)	16	20	BSc II Unit 3 PP	3b - chemical methods 3d - weedicide
III 04	04	08	BSc III Unit 1 Unit 2 - Gardening and ornamental plants	1c - Plant nursery 2a - Gardening
Month ... <u>January</u>			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total		
I 04	-	-	BSc I Unit 1	1d - Bentham and Hooker's system 1e - family
II 04	-	-	BSc II Unit 2 - Nitrogen Metabolism	2a - Introduction 2b - Biological N ₂ fix
III 04 (PP)	16	20	BSc II Unit 4 - Non Insect Pest	3d, 4c, 4d
III 04	04	08	BSc III Unit 2	2b


Name and Signature of Teacher
(Dr. Abhijeet R. Kasarkar)


Name and Signature of HoD
Head
Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year: 2019-2020 Semester: II Department: Botany

Subject: Botany, Plant Protection Course Title:

Name of the teacher: Dr. Abhijeet R. Kasabkar

Month .. <u>Feb</u>			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total		
<u>I 03</u>	<u>—</u>	<u>03</u>	<u>BSc-I Unit 1</u>	<u>1e-Family</u>
<u>II 03</u>	<u>—</u>	<u>03</u>	<u>BSc II Unit 2</u>	<u>2c, 2d</u>
<u>III 03</u> <u>(PP)</u>	<u>08</u>	<u>11</u>	<u>BSc II Unit 4</u> <u>PP</u>	<u>4c, 4d</u>
<u>III 03</u>	<u>03</u>	<u>06</u>	<u>BSc III Unit 2</u>	<u>2b, 2c</u>
Month ..			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total		
Month ..			Module/Unit:	Sub-units planned

Dr. Kasabkar

Name and Signature of Teacher
(Dr. Abhijeet R. Kasabkar)

[Signature]

Name and Signature of HoD
Head
Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year- 2019-20

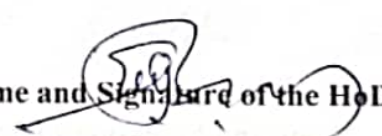
Semester-V

Department- **Botany**Subject- **Botany**Course name- **B. Sc. I**Name of the Teacher- **Dr. Jyoti M. Gorule**

Month- July and August			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
6	-	6	Bryophytes	General characters, Adaptation to land habit, Classification (As per G. M. Smith) upto class, Alternation of Generation, Economic importance.
Month- September and October			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
6	-	6	Bryophytes	Morphology, Anatomy and Life Cycle (Excluding developmental stages) Hepaticopsida - Riccia Anthocerotopsida- Anthoceros.



Name and Signature of The Teacher



Name and Signature of the HoD

Head

Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year- 2019-20

Semester-VI

Department- Botany

Subject- Botany

Course name- B. Sc. I

Name of the Teacher- Dr. Jyoti M. Gorule

Month- November and December			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
5	-	5	Morphology and modifications in Angiosperms	Morphology and modification of Root
Month- January and February			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
6	-	6	Morphology and modifications in Angiosperms	Morphology and modification of Stem.
Month- March			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
3	-	3	Morphology and modifications in Angiosperms	Morphology and modification of Leaf



Name and Signature of The Teacher



Head
Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year- 2020-21

Semester-V

Department- Botany

Subject- Botany

Course name- B. Sc. I

Name of the Teacher- Dr. Jyoti M. Gorule

Month- October and November			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
3	-	3	Bryophytes	General characters, Adaptation to land habit,
Month- December and January			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
4	-	4	Bryophytes	Classification (As per G. M. Smith) upto class, Alternation of Generation, Economic importance.
Month- February and March			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
5	-	5	Bryophytes	Morphology, Anatomy and Life Cycle (Excluding developmental stages) Hepaticopsida - Riccia Anthocerotopsida- Anthoceros.

Name and Signature of The Teacher

Name and Signature of the Ho

Head
Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year- 2019-20

Semester-V

Department- Botany

Subject- Plant- Protection

Course Name- B. Sc. II

Name of the Teacher- Dr. Jyoti M. Gorule

Month- July and August			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
4	3	7	Methods of Plant Protection part -I Practical I	Cultural methods – Tillage, crop rotation, trap crops, fertilizer applications Mechanical methods – Field sanitation, Hand picking, Destruction of infected plants / plant parts, Destruction of egg masses, light traps, use of sticky bands, bagging for the pests.
Month- September and October			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
5	4	9	Methods of Plant Protection part -I Advanced Agricultural practices with reference to concept and applications. Practical I	Physical methods – Heat and soil solarisation Organic Farming Transgenic methods (Agrobacterium mediated gene transfer) , Examples of Transgenic crops.



Name and Signature of The Teacher



 Head
 Department of Botany
 Vivekanand College
 Kolhapur


Annual Teaching Plan

Academic Year- 2020-21

Semester-V

Department- Botany

Subject- Plant- Protection

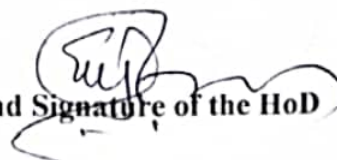
Course Name- B. Sc. II

Name of the Teacher- Dr. Jyoti M. Gorule

Month- October and November			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
3	3	6	Methods of Plant Protection part -I Practical II	Cultural methods – Tillage, crop rotation, trap crops, fertilizer applications Mechanical methods – Field sanitation, Hand picking,
Month- December and January			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
4	4	8	Methods of Plant Protection part -I Practical II	Destruction of infected plants / plant parts, Destruction of egg masses, light traps, use of sticky bands, bagging for the pests. Physical methods – Heat and soil solarisation
Month- February and March			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
4	4	8	Advanced Agricultural practices with reference to concept and applications. Practical II	Organic Farming Transgenic methods (Agrobacterium mediated gene transfer), Examples of Transgenic crops.



Name and Signature of The Teacher



Name and Signature of the HoD



Head
Department of Botany
Vivekanand College
Kolhapur

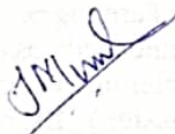
Annual Teaching Plan

Academic Year- 2019-20

Semester-VI

Department- **Botany**Subject- **Plant- Protection**Course Name- **B. Sc. II**Name of the Teacher- **Dr. Jyoti M. Gorule**

Month- November and December			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
5	4	9	Study of insect pests Practical I	Jowar – Stem borer Sugarcane – White grub Gram – Pod borer
Month- January and February			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
6	8	14	Study of insect pests Practical I	Mango – Hoppers Brinjal – Fruit borer Rose – Bud borer
Month- March			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
3	4	7	Study of insect pests Practical I	Rice weevil Pulse beetle



Name and Signature of The Teacher


Name and Signature of the HoD

 Head
 Department of Botany
 Vivekanand College
 Kolhapur


Annual Teaching Plan

Academic Year- 2019-20

Semester-V

Department- Botany

Subject- Botany

Course Name- B. Sc. III

Name of the Teacher- Dr. Jyoti M. Gorule

Month- July and August			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
4	3	7	Lipid Metabolism Practical III	Introduction and classification of lipids. Properties of saturated fatty acids (Stearic and Palmitic acid), and unsaturated fatty acids (Linoleic and Linolenic acid).
Month- September and October			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
5	4	9	Lipid Metabolism Practical III	Beta Oxidation. Gluconeogenesis and its role in mobilization of fatty acids during germination. Significance of lipids

Name and Signature of The Teacher

Name and Signature of the HoD

Head
Department of Botany
Vivekanand College
Kothrud



Annual Teaching Plan

Academic Year- 2020-21

Semester-VI

Department- Botany

Subject- Plant- Protection

Course Name- B. Sc. II

Name of the Teacher- Dr. Jyoti M. Gorule

Month- May			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
4	4	8	Study of insect pests Practical II	Jowar – Stem borer Sugarcane – White grub Gram – Pod borer
Month- June and July			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
5	7	12	Study of insect pests Practical II	Mango – Hoppers Brinjal – Fruit borer Rose – Bud borer
Month- August and September			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
3	4	7	Study of insect pests Practical I	Rice weevil Pulse beetle



Name and Signature of The Teacher



Name and Signature of the HoD

Head
Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year- 2020-21

Semester-V

Department- Botany

Subject- Botany

Course Name- B. Sc. III

Name of the Teacher- Dr. Jyoti M. Gorule

Month- October and November			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
3	3	6	Lipid Metabolism Practical I	Introduction and classification of lipids.
Month- December and January			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
2	3	5	Lipid Metabolism Practical I	Properties of saturated fatty acids (Stearic and Palmatic acid), and unsaturated fatty acids (Linoleic and Linolenic acid).
Month- February and March			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
5	4	9	Lipid Metabolism Practical I	Beta Oxidation. Gluconeogenesis and its role in mobilization of fatty acids during germination. Significance of lipids
Month- April			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
3	2	5	Biofertilizer Practical I	4a: Microbes in Agriculture –Biological Nitrogen Fixation, Mycorrhizae.

Jyoti M. Gorule

Name and Signature of The Teacher

[Signature]

Name and Signature of the HoD

Head
Department of Botany
Vivakanand College
Kothabur



Annual Teaching Plan

Academic Year- 2019-20

Semester-VI

Department- Botany

Subject- Botany

Course Name- B. Sc. III

Name of the Teacher- Dr. Jyoti M. Gorule

Month- November and December			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
5	4	9	Recombinant DNA Technology. Practical III	Introduction and Principle General method and Enzymes involved in recombinant DNA technology
Month- January and February			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
6	8	14	Recombinant DNA Technology. Practical III	Cloning Vectors – a) Prokaryotic- Plasmid, Lambda phage and Cosmid b) Eukaryotic-YAC [Yeast Artificial Chromosomes]
Month- March			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
3	4	7	Horticulture Practical III	Plant Nursery Management- Introduction, types of nursery, infrastructure and requirements, manure, fertilizers, pesticides, methods of irrigation and commercial importance.


Name and Signature of The Teacher


Name and Signature of the HoD



Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year- 2020-21

Semester-VI

Department- Botany

Subject- Botany

Course Name- B. Sc. III

Name of the Teacher- Dr. Jyoti M. Gorule

Month- May			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
5	4	9	Recombinant DNA Technology. Practical I	Introduction and Principle Enzymes involved in recombinant DNA technology Cloning Vectors (Plasmid, Bacteriophage and Cosmids)
Month- June and July			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
6	6	12	Recombinant DNA Technology. Forestry Practical I	Gene Amplification: PCR technique Introduction, Forest types of India Wild life and Biosphere reserves Social and Agricultural Forestry
Month- August and September			Module/Unit	Sub-units Planned
Lectures	Practicals	Total		
4	3	7	Forestry Practical I	Forest research education and Training institutions Forest Acts Different Plant as a forest products

J.M. Gorule

Name and Signature of The Teacher

[Signature]
Name and Signature of the HoD
Head

Department of Botany
Vivekanand College
Kolhapur



Vivekanand College, Kolhapur (Autonomous)
 Department of Botany
Annual Teaching Plan

Academic Year: 2019-2020

Name of the teacher: **Dr. Annapurna Ram Alvikar**


Programme : **B. Sc I**

Semester: **I**

Subject: **Botany**

Course Title: **"Bryophytes, Pteridophytes and Gymnosperms"**

Month : August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section II : Unit I – 1b: Pteridophytes	1b: Introduction, General characters, Classification (As per G. M. Smith) upto class A: Morphology, Anatomy of <i>Selaginella</i>
03	--	03		
Month : September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section II : Unit I – 1b: Pteridophytes	A: Anatomy of <i>Selaginella</i> Morphology and Anatomy of <i>Pteris</i>
04	04	08		
Month : October			Module/Unit:	Sub-units planned
03	04	07	Section II : Unit I – 1b: Pteridophytes	A: Anatomy of <i>Pteris</i> B: Heterospory and Seed habit in Pteridophytes


 Name and Signature of Teacher
 (Dr. Annapurna. R. Alvikar)


 Name and Signature of HoD
 Head
 Department of Botany
 Vivekanand College
 Kolhapur



Vivekanand College, Kolhapur (Autonomous)
 Department of Botany
Annual Teaching Plan

Academic Year: 2019-2020

Name of the teacher: **Dr. Annapurna Ram Alvikar**

Programme : **B. Sc I**

Semester: **II**

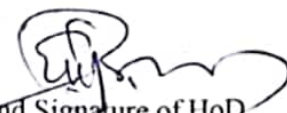
Subject: **Botany**

Course Title: **"Plant Ecology"**

Month : November-December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section I : Unit I – Ecological factors and Plant Communities	1a: Introduction, Definition of Ecology 1b: Ecological Factors: i: Edaphic factors: Soil: Origin and Formation.
06	--	06		
Month : January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section I : Unit I – Ecological factors and Plant Communities	ii : Climatic factors iii: Ecological adaptations iv: Soil pollution
04	04	08		
Month : February			Module/Unit:	Sub-units planned
03	03	06	Section I : Unit I – Ecological factors and Plant Communities	1c: Ecological Succession 1d: Ecological Interaction



Name and Signature of Teacher
 (Dr. Annapurna. R. Alvikar)

Name and Signature of HoD
 Head
 Department of Botany
 Vivekanand College
 Kolhapur

Vivekanand College, Kolhapur (Autonomous)

Department of Botany

Annual Teaching Plan

Academic Year: 2019-2020

Name of the teacher: Dr. Annapurna Ram Alvikar

Programme : B. Sc II

Semester: III

Subject: Botany

Course Title: "Plant Physiology"

Month : August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section II : Unit III : Photosynthesis	3a: Introduction: Ultrastructure of Photosynthetic apparatus 3b: Photosynthetic pigments
03	--	03		
Month : September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section II : Unit III : Photosynthesis	3c: Mechanism of Photosynthesis a) : Light Reactions- Cyclic Photophosphorylation b) Dark reaction
04	04	08		
Month : October			Module/Unit:	Sub-units planned
04	04	08	Section II : Unit III : Photosynthesis	c) CAM pathway 3d: Significance of Photosynthesis

Name and Signature of Teacher
(Dr. Annapurna. R. Alvikar)

Name and Signature of HoD

Department of Botany
Vivekanand College
Kolhapur



Vivekanand College, Kolhapur (Autonomous)
 Department of Botany
Annual Teaching Plan

Academic Year: 2019-2020

Name of the teacher: **Dr. Annapurna Ram Alvikar**

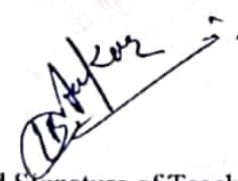
Programme : **B. Sc II**

Semester: **IV**


Subject: **Botany**

Course Title: **"Plant Anatomy and Plant Metabolism"**

Month : November			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04	---	---
Month : December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
--	04	04	---	---
Month : January			Module/Unit:	Sub-units planned
--	04	04	---	---


 Name and Signature of Teacher
 (Dr. Annapurna. R. Alvikar)




 Name and Signature of HoD
 Head
 Department of Botany
 Vivekanand College
 Kolhapur

Vivekanand College, Kolhapur (Autonomous)
 Department of Botany
 Annual Teaching Plan

Academic Year: 2019-2020

Name of the teacher: **Dr. Annapurna Ram Alvikar**

Programme : **B. Sc III**

Semester: **V**

Subject: **Botany**

Course Title: **"Plant Biochemistry and Stress Physiology"**

Month : 16 th July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section I : Unit III – Stress Physiology	3a: Introduction, Defining Plant Stress
02	--	02		
Month : August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section I : Unit III – Stress Physiology	3b: Types of Stress – Water Stress, Salinity Stress, High light Stress
04	--	04		
Month : September			Module/Unit:	Sub-units planned
04	--	04	Section I : Unit III – Stress Physiology	3b: High light Stress, Temperature Stress,
Month : October			Module/Unit:	Sub-units planned
03	--	03	Section I : Unit III – Stress Physiology	Calcium Modulation, Phospholipid signalling

Name and Signature of Teacher
 (Dr. Annapurna. R. Alvikar)

Name and Signature of HoD
 Head
 Department of Botany
 Vivekanand College
 Kolhapur



Vivekanand College, Kolhapur (Autonomous)
 Department of Botany
Annual Teaching Plan

Academic Year: 2019-2020

Name of the teacher: **Dr. Annapurna Ram Alvikar**

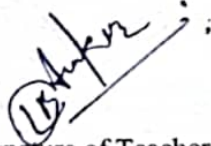
Programme : **B. Sc III**

Semester: **VI**

Subject: **Botany**

Course Title: **“Molecular Biology and Biotechnology”**

Month : November-December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section I : Unit I – Genetic Material	1a: Introduction, Nucleic acids (DNA, RNA).
04	--	04		
Month : January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section I : Unit I – Genetic Material	1b: Griffith’s and Avery’s transformation experiment, Harshey-Chase bacteriophage experiment 1c: DNA structure
04	--	04		
Month : February			Module/Unit:	Sub-units planned
04	--	04	Section I : Unit I – Genetic Material	1c: Types of DNA 1d: DNA replication 1e: Types of RNA


 Name and Signature of Teacher
 (Dr. Annapurna. R. Alvikar)


 Name and Signature of HoD
 Head
 Department of Botany
 Vivekanand College
 Kolhapur



Annual Teaching Plan

Academic Year: 2019-2020

Semester: V

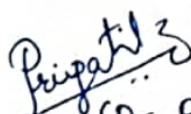
Department: Botany

Subject: Botany (Theory)


Course Title: B.Sc.

Name of the teacher: Dr. Priya Digambar Patil

Month: 16 th July-August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Botany Paper X Unit 3: Variation in Chromosome number and structure	Chromosome, Chromosome number- Euploidy and Aneuploidy, Chromosome structure- Deletion, Duplication, Inversion and Translocation
6	--	6		
Month :September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 3: Variation in Chromosome number and structure	Mutation and its types, Types of mutagen- Physical and chemical, Significance of mutation. Unit Test: MCQ Type
4	--	4		
Month: October			Module/Unit:	Sub-units planned
5	--	5	Botany Paper XI Unit 4: Ecosystem	Introduction, Types and components of ecosystem, Dynamics of ecosystem- Food chain, trophic levels.


(Dr. Priya D. Patil)
Name and Signature of Teacher




Name and Signature of HoB
Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2019-2020

Semester: VI

Department: Botany

Subject: Botany (Theory)

Course Title: B.Sc.

Name of the teacher: Dr. Priya Digambar Patil

Month: November-December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Botany Paper XVI Unit 4: Plant Tissue Culture	Historical perspective, Principles, Terminology. Composition of medium, nutrient and hormone requirement
5	--	5		
Month :January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 4: Plant Tissue Culture	Totipotency and cellular differentiation. Organogenesis, somatic and zygotic embryogenesis
5	--	5		
Month: February			Module/Unit:	Sub-units planned
3	--	3	Unit 4: Plant Tissue Culture	Applications of plant tissue culture: Protoplast culture, Somatic hybridization, Micropropagation. Unit test: MCQ Type

Priya D. Patil
(Dr. Priya D. Patil)
Name and Signature of Teacher



[Signature]
Name and Signature of HoD
Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2019-2020

Semester: III

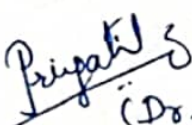
Department: **Botany**

Subject: **Plant Protection** (Theory)

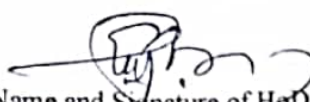
Course Title: **B.Sc.**

Name of the teacher: **Dr. Priya Digambar Patil**

Month: July-August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section II: Plant Pathology Unit 1: Crop diseases	Introduction and importance of plant pathology, Concept of disease, Terminologies involved in plant protection, Phytoalexins and Siderophores. Classification of plant diseases based on Pathogens, symptoms, severity.
6	--	6		
Month :September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 1: Crop diseases Unit 2: Mechanism of infection	Classification of plant diseases based on spread, occurrence of disease, transmission of pathogens through, host and cause. Unit Test: MCQ Type Mechanism of infection in fungi
5	--	5		
Month: October			Module/Unit:	Sub-units planned
4	--	4	Unit 2: Mechanism of infection	Mechanism of infection in bacteria and virus. Factors affecting infection


(Dr. Priya D. Patil)
Name and Signature of Teacher




Name and Signature of HoD
Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2019-2020

Semester: IV

Department: Botany

Subject: Plant Protection

Course Title: B.Sc.

Name of the teacher: Dr. Priya Digambar Patil

Month: Nov.-December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section II: Insect pest Unit 1: Introduction to insect pest	Definition and losses caused by insect pests. Causes for insects to assume pest status.
4	--	4		
Month :January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 1: Introduction to insect pest	Classification of insect pest based on- a) Occurrence of pest b) Intensity of pest c) Level of infestation d) Food requirement. Unit Test: MCQ Type
4	--	4		
Month: February			Module/Unit:	Sub-units planned
3	--	3	Unit 4: Recent trends in pest management	Attractants, Repellents, Antifeedants, Pheromones, Chemosterilents
Month: March			Module/Unit:	Sub-units planned
2	--	2	Unit 4: Recent trends in pest management	Precautionary measures used during pesticide application

Priya D. Patil
(Dr. Priya D. Patil)
Name and Signature of Teacher



[Signature]
Name and Signature of HoD

Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2019-20 Semester: III Department: Botany

Subject: Plant Protection Course Title: B.Sc. II

Name of the teacher: Dr. Lubdha Abhijeet Kagale

Month <u>July</u>			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total	Crop Diseases Practical-II	Signs and Symptoms Rust, Smut, mildew, chlorosis
2	1	3		
Month <u>August</u>			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total	Crop Diseases Management of crop diseases and Pathophysiological skills	Koch's Postulates Principle of Plant disease management
4	4	8		
Month <u>September</u>			Module/Unit:	Sub-units planned
4	4	8	Management of crop diseases	classification of fungicide

L. Kagale
Name and Signature of Teacher

Dr. Lubdha A. Kagale



[Signature]
Name and Signature of HoD

Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2019-20 Semester:..... Department:.....

Subject: Plant Protection Course Title: B.Sc. II

Name of the teacher: Dr. Lubdha Abhijeet Kagale

Month <u>October</u>			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total	Management of crop diseases and Pathophysiological skills Practical - II	Mode of action of Carbandazim and copper oxychloride
2	3	5		
Month <u>Nov. & Dec.</u>			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total	Management of Insect Pest Practical - II	Mode of entry mode of action
3	3	6		
Month <u>Jan. & Feb. and March</u>			Module/Unit:	Sub-units planned
9	4	13	Chemical Nature management of Insect Pest Practical - II	Chemical nature Need of formulations

Kagale
Name and Signature of Teacher
Dr. Lubdha A. Kagale



[Signature]
Name and Signature of HoD
Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2019-20 Semester: V Department: Botany

Subject: Botany Course Title: B.Sc. III

Name of the teacher: Dr. Lubdha Abhijeet Kagale

Month <u>July & August</u>			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total	Mineral Nutrition and Nitrogen metabolism Practical-IV	Role of minerals, Deficiencies due to minerals macro and microelement
5	3	8		
Month <u>Sep... & October</u>			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total	Mineral Nutrition and Nitrogen Metabolism Ecosystem Practical-IV	Nitrogen metabolism Phases and types of Biogeochemical cycles.
9	5	14		
Month <u>Nov... & Dec....</u>			Module/Unit: (Sem-VI)	Sub-units planned
5	4	9	Microbiology and Plant Pathology	Staining tech. sterilization tech. microbes

L. Kagale
Name and Signature of Teacher
Dr. Lubdha A. Kagale



[Signature]
Name and Signature of HoD

Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2019-20 Semester: VI Department: Botany

Subject: Botany Course Title: B.Sc. III

Name of the teacher: Dr. Lubdha Abhijeet Kagale

Month .. <u>January</u>			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total	microbiology and Plant pathology Practical-IV	Scope of microbes in industry
<u>3</u>	<u>3</u>	<u>6</u>		
Month .. <u>Feb. & March</u>			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total	Plant breeding improvement Practical-IV	Aims, objectives and methods of plant breeding
<u>5</u>	<u>4</u>	<u>9</u>		
Month			Module/Unit:	Sub-units planned

Kagale
Name and Signature of Teacher
Dr. Lubdha A. Kagale



[Signature]
Name and Signature of HoD
Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2019-20... Semester: Both sem. Department: Botany
 Per year
 Subject: Botany Course Title: B.Sc. I, II, III
 Name of the teacher: Dr. Sarika Dipak Patil

Month: Jun			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total		
B.Sc I	—	—	Sem-V Dsc-7E Section II Unit - II	2a - Syllabus Discussion & Classification on Pathogen
Bot/PP II	—	—		
III	4	04		
Month: July			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total		
B.Sc. I	—	—	sem V Dsc 7E Section II Unit - II	Classification on crops and symptoms.
Bot/PP II	—	—		
III	7	07		
Month: Aug			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total		
B.Sc. I	—	30	DSC 7C Set II Unit I a, b DSC-7C Sec II → DSC-101202 Sec II → DSC-7E sect II →	Algae - Nostoc Spirogyra Unit I Unit II Practical PP/Bot 3a, 3b, 3c
Bot/PP II	4+3	3		
III	4	04		

Name and Signature of Teacher
 (Dr. Sarika D. Patil.)



Name and Signature of HoD
 Head
 Department of Botany
 Vivekanand College
 Kolhapur

Annual Teaching Plan

Academic Year: 2019-20 Semester: Department: Botany


Subject: Botany Course Title:

Name of the teacher: Dr. Sarika D. Patil

	Month ... Sept ...			Module/Unit:	Sub-units planned
	Lecture s	Practical s	Total		
B.Sc. I	1	1		study of fungi	Mucor, Penicillium VAM. Fungi
Bot/PP I	3+4	4+4			
II	3	-			
	Month ... Oct ...			Module/Unit:	Sub-units planned
	Lecture s	Practical s	Total	study of Bryophytes	Riccia Anthoceros.
B.Sc. I	-	09			
Bot/PP I	3+3	3+3			
II	3	-		Dsc 7c set II unit 1 Dsc 1012 c2 sec II unit 3 Dsc 7F set II unit 2 DSC 7E - Set II	1.c 3d, Rust smut 2b 3f
	Month ... Nov ...			Module/Unit:	Sub-units planned
	Lecture s	Practical s	Total	Study of Pteridophytes	Selaginella Pteris Jc Test Tikka, Powder, Downy unit 1
B.Sc. I	-				
Bot/PP I	4+4	4+4			
II	3	-		Dsc 7c sect 1 unit 1 Dsc 1012 c2 Sect II unit 3 Sem II Dsc-7G Sect 1 - unit 1	


Name and Signature of Teacher
(Dr. Sarika Dipak Patil.)




Name and Signature of Head
Head
Department of Botany
Vivekanand College
Kolhapur


Annual Teaching Plan

Academic Year: 2019-20 Semester:..... Department: Botany

Subject:..... Course Title:

Name of the teacher: Dr. Sarika D. Patil

	Month ... <u>Dec</u>			Module/Unit:	Sub-units planned
	Lecture s	Practical s	Total		
B.Sc I	-	20		Sem IV DSC 70 Unit I DSC 1011 D ₂ Sect I Unit I Sem VI DSC 74 2	Study of cecae WHC and PH Bacterial forms. 1a, 1b 1a, 1b, 1c Unit II 2a, 2b, 2c.
Bot/Pr II	5+4	5+4			
III	5	-			
	Month ... <u>Jan</u>			Module/Unit:	Sub-units planned
	Lecture s	Practical s	Total		
B.Sc. I	-	09		Sem IV DSC 70 Unit 1 lb, k DSC 1011 D ₂ Sect I Unit I Sem VI DSC 74 Sect II	Biofertilizers Adaptations. Hydrophytes Parasites 1c, 1d, 1e Unit 3 3a, 3b.
Bot/Pr II	4+5	4+5			
III	5	-			
	Month ... <u>Feb</u>			Module/Unit:	Sub-units planned
	Lecture s	Practical s	Total		
B.Sc. I	-	09		Sem IV DSC 70 Unit 3 3a, 3b DSC 1011 D ₂ Set I Unit 4 Sem VI DSC 74 Set II	Adaptations Xerophytes Epiphytes Modification of Root PP Practicals Bot Unit 3 3c, 3d.
Bot/Pr II	4+4	4+4			
III	3	-			


Name and Signature of Teacher
(Dr. Sarika D. Patil.)




Name and Signature of HoD
Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2019-20 Semester: I Department: Botany

Subject: Botany Course Title: B.Sc. I

Name of the teacher: Dr. Ketaki Prakash Patil

	Month July			Module/Unit:	Sub-units planned
	Lecture s	Practical s	Total		
B.Sc. I	3	3		Topic - fungi Practical - I & II	Introduction classification
II					
III					
	Month August			Module/Unit:	Sub-units planned
	Lecture s	Practical s	Total		
B.Sc. I	3	3		Topic - fungi Practical - I & II	Economic importance
II					
III					
	Month Sept.			Module/Unit:	Sub-units planned
	Lecture s	Practical s	Total		
B.Sc. I	3	3		Topic - fungi Practical - I & II	-Mushrooms / Penicillium -VAM - fungi -Lichen
II					
III					

Patil

Name and Signature of Teacher



[Signature]

Name and Signature of Head
Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2019-20 Semester: III Department: Botany

Subject: Botany Course Title: B.sc. II

Name of the teacher: Dr. Ketaki Prakash Patil

	Month <u>July</u>			Module/Unit:	Sub-units planned
	Lecture s	Practical s	Total		
B.Sc. I	2			Annonaceae B.sc. II - Practical	Morphology Floral, & all characters
II	2	1	3		
III					
	Month <u>August</u>			Module/Unit:	Sub-units planned
	Lecture s	Practical s	Total		
B.Sc. I				Meliaceae Apocynae B.sc. II - Practical.	— II —
II	3	2	5		
III					
	Month <u>September</u>			Module/Unit:	Sub-units planned
	Lecture s	Practical s	Total		
B.Sc. I				Lamiaceae	— II —
II	3	2	5		
III					

Patil
Name and Signature of Teacher



[Signature]
Name and Signature of HoD

Head
Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2019-20 Semester: V Department: Botany

Subject: Botany Course Title: B.Sc. III (sem. V)

Name of the teacher: Dr. Ketaki Prakash Patil

Month			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total	B.Sc. III - L Practical - I, II Topic - Extra-chromosomal inheritance	- Introduction - - organization
2	3			
Month			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total	B.Sc. III - L Practical - II & III Topic - Extra-chromosomal inheritance	- Plasmid Inheritance
2	3			
Month			Module/Unit:	Sub-units planned
Lecture s	Practical s	Total	B.Sc. III - L Practical - I & II	- Mitochondrial Inheritance
2	3			

Patil
Name and Signature of Teacher



[Signature]
Name and Signature of HoD

Head
Department of Botany
Vivekanand College
Kolhapur


Annual Teaching Plan


Academic Year: 2019-20 Semester: I Department: Botany

Subject: Botany Course Title: section I Biodiversity in Cryptogams

Name of the teacher: Miss. Snehal Sanjay Wadkar and Gymnosperm

Month July-August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Microbes	Virus DNA virus RNA virus
04	04	08		
Month September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Microbes	Bacteria-Types, Mode of Reprod ⁿ General characters, classification
04	04	08	Gymnosperm	
Month October			Module/Unit:	Sub-units planned
04	04	08	Gymnosperm	Class, General characters with suitable example Economic importance


Name and Signature of Teacher
(Ms. Wadkar S.S.)


Name and Signature of HoD
Head
Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year: 2019-20 Semester: III Department: Botany

Subject: Botany Course Title: Plant Metabolism

Name of the teacher: Miss. Snehal Sanjay Wadkar

Month <u>July - August</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Respiration	Introduction, Types of respiration
04	04	08		
Month <u>September</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Respiration	Glycolysis, Formation of Acetyl co-A
05	05	10		
Month <u>October</u>			Module/Unit:	Sub-units planned
04	05	09	Respiration	TCA cycle, ETS in mitochondria, Significance of respiration

S. Wadkar

Name and Signature of Teacher
(Ms. Wadkar S.S.)

Sujay

Name and Signature of HoD

Head
Department of Botany
Vivekanand College
Kolhapur




Annual Teaching Plan

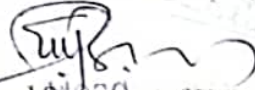
Academic Year: 2019-20 Semester: II Department: Botany

Subject: Botany Course Title: D.Sc. 7. B. Plant Ecology & Taxonomy

Name of the teacher: Miss. Snehal Sanjay Wadkar

Month November			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Ecosystem and Phytogeography	Introduction, composition,
04	04	08		
Month Dec. - January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Ecosystem and Phytogeography	Biotic and Abiotic compo- nents, Types of ecosystems
04	04	08		
Month Feb. - March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Ecosystem and Phytogeography	Biochemical cycles Phytogeographical regions of World.
04	04	08		


Name and Signature of Teacher
(Ms. Wadkar S.S.)


Name and Signature of HoD
Department of Botany
Vivekananda College
Kolhapur



Annual Teaching Plan

Academic Year: 2019-20

Semester: IV
DSC & D

Department: Botany

Subject: Botany Course Title: Plant Metabolism (Section II)

Name of the teacher: Miss. Snehal Sanjay Wadkar

Month: November			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Enzymes	Introduction, Chemical Nature and properties of enzymes classification
04	04	08		
Month: Dec. - January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Enzymes	Nomenclature Mechanism of enzyme action Factors affecting enzyme activity
04	04	08		
Month: February - March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Enzymes	Allosteric modification and feedback inhibition
05	04	09		

S. Wadkar

Name and Signature of Teacher
(Ms. Snehal S. Wadkar)

[Signature]
Name and Signature of HoD

Head
Department of Botany
Vivekanand College
Kolhapur



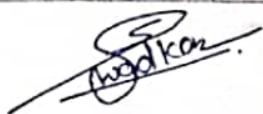
Annual Teaching Plan

Academic Year: 2019-20 Semester: VI Department: Botany

Subject: Botany Course Title: "Cytology & Research Techniques in Life Sciences"

Name of the teacher: Miss. Snehal Sanjay Wadkar
"Plant Biochemistry & Stress Physiology"

Month <u>July - August</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Cell organelles	Glyoxisomes, Peroxisomes and lysosomes
05	-	05		
Month <u>September</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Cell organelles	Structure and composition and function cell cycle, Apoptosis
05	-	05		
Month <u>October</u>			Module/Unit:	Sub-units planned
05	-	05	Protein metabolism	Introduction, Properties and characters of A.A. Protein-str. and classification, synthesis


 Name and Signature of Teacher
 (Ms. Wadkar S.S.)


 Name and Signature of HoD

Head
 Department of Botany
 Vivekanand College
 Kolhapur



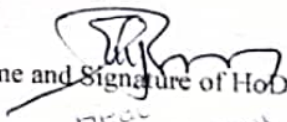
Annual Teaching Plan

Academic Year: 2019-20 Semester: VI Department: Botany

Subject: Botany Course Title: Cytology & Research Techniques in life sciences (Paper V)
 Name of the teacher: Miss. Snehal Sanjay Wadkar

Month ..Nov - Dec.....			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Extra chromosomal Genome	Introduction and Genome organization
Month ..January.....			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Extra chromosomal Genome	Plastid Inheritance
Month ..Feb - March..			Module/Unit:	Sub-units planned
04	04	08	Extra chromosomal Genome	Mitochondrial Inheritance


 Name and Signature of Teacher
 (Ms. Wadkar S.S.)


 Name and Signature of HOD
 Head
 Department of Botany
 Vivekanand College
 Kolhapur



Annual Teaching Plan

Academic Year: - 2019-20

Semester: I

Department: Botany

Subject: Botany Course Title: B.Sc I.

Name of the teacher: U. H. Gadase

Month .. July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	03	05	Lichen	Definition Structure of Thallus
Month .. August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	03	05	Lichen	Types & Reproduction
Month .. September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
01	03	04	Lichen	Economic Importance.

Gadase

Name and Signature of Teacher

[Signature]

Name and Signature of HoD

Head
Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year: 2019-20 Semester: VI Department: Botany

Subject: Botany Course Title: B.Sc. III

Name of the teacher: U. H. Godase

Month: December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	03	07	Biostatistics & Economic Botany Ethnobotany	Unit: I Biostatistics. Introduction Sampling
Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08		Collection & Representation of Data Central tendency
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08		Variations, Standard deviations.

Godase

Name and Signature of Teacher

[Signature]

Name and Signature of HOD

Head

Department of Botany
Vivekanand



Annual Teaching Plan

Academic Year: 2019-20

Semester: I

Department: Botany

Subject: - Botany Course Title: B.Sc. III (Plant Metabolism)

Name of the teacher: Miss. U. H. Godase

Month ... July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Sect. II. Plant water Relationship	Introduction Physiological Importance of water
04	02	06		
Month ... August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Plant water Relationship.	Water Transport Process.
02	00	02		
Month ... September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Plant water Relationship	Transpiration Types, Mechanism.
02	00	02		

Godase

Name and Signature of Teacher

[Signature]

Name and Signature of HoD

Head

Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year - 2019 Semester: V Department: Botany
 Subject: Botany Course Title: B.Sc. III Plant Biochemistry & Stress Physiology
 Name of the teacher: Miss U. H. Dhadase

Month: December July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	03	05	Carbohydrate Metabolism	Introduction & Classification
Month: January August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	03	05	Carbohydrate Metabolism	Properties of Monosaccharide
Month: February September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
03	03	06	Carbohydrate Metabolism	Oligo & Polysaccharides

Dhadase
 Name and Signature of Teacher

[Signature]
 Name and Signature of HoD
 Head
 Department of Botany
 Vivekanand College
 Kolhapur



Annual Teaching Plan

Academic Year: 2019-20 Semester: IV Department: - Botany.
 Subject: Botany Course Title: B.Sc. II Plant Anatomy & Metaboli.
 Name of the teacher: Miss. U.H. Godase

Month ... <u>December.</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	<u>Plant Adaptations</u>	<u>Mangrove Biology</u>
<u>03</u>	<u>03</u>	<u>06</u>		
Month ... <u>January</u> ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	<u>Plant Adaptations</u>	<u>Xeric Adaptations</u> <u>- Carnivorous plants</u>
<u>03</u>	<u>04</u>	<u>07</u>		
Month <u>February</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	<u>Plant Adaptations.</u>	<u>- Epiphytic & Parasitic plants.</u>
<u>03</u>	<u>04</u>	<u>07</u>		

Godase

Name and Signature of Teacher

[Signature]

Name and Signature of HoD

Head

Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year: 2019-20 Semester: III Department: Botany

Subject: Botany Course Title: Taxonomy and Embryology

Name of the teacher: Miss. Swati A. Gurav

Month July - August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Plant families	Introduction Annonaceae Meliaceae
Month September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Plant families	Apocynaceae Lamiaceae
Month October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	03	05	Plant families	Amaranthaceae Orchidaceae

Name and Signature of Teacher
Swati A. Gurav

Name and Signature of HoD
[Signature]
Head
Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year: 2019-20

Semester: V

Department: Botany

Subject: Botany Course Title: Plant systematics and Paleobotany

Name of the teacher: Miss Swati A. Gurav

Month July - August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	04	09	Importance of Plant systematics	Introduction Evidences from Palynology, cytology
Month September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	04	09	Importance of Plant Systematics	Evidences from Phytochemistry and Molecular data
Month October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	04	09	Importance of Plant systematics	Herbarium, Important Herbaria and Botanical Gardens

Swati

Name and Signature of Teacher

[Signature]
Name and Signature of HoD
Head

Department of Botany
Vivekanand College
Kolhapur

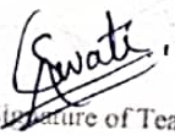



Annual Teaching Plan

Academic Year: 2019-20 Semester: VI Department: Botany

Subject: Botany Course Title: Horticulture, Forestry and Herbal Technology
 Name of the teacher: Miss. Swati A. Gurav

Month .. <u>Nov. - Dec.</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	03	07	Gardening and Ornamental plants	Ornamental plants - Herbs Shrubs
Month .. <u>January</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	04	06	Gardening and ornamental plants	Trees, Indoor plants
Month .. <u>February</u>			Module/Unit:	Sub-units planned
02	04	06	Gardening and ornamental plants	Lawns and climber

Name and Signature of Teacher


Name and Signature of HoD

 Head
 Department of Botany
 Vivekanand College
 Kolhapur

