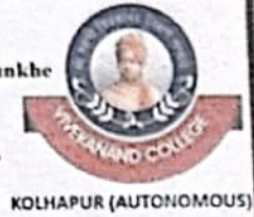




"Education for Knowledge, Science, and Culture"
- Shikshanmaharshi Dr. Bapuji Salunkhe
Shri Swami Vivekanand Shikshan Sanstha's
Vivekanand College, Kolhapur
(Autonomous)



Department of Botany

Annual Teaching Plan

2018-2019

Annual Teaching Plan 2018-2019

Department of Botany



Shri Swami Vivekanand Shikshan Sanstha's
VIVEKANAND COLLEGE, KOLHAPUR. (AUTONOMOUS)

Department of Botany

**Annual Teaching Plan
(2018-2019)**

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Head
Department of Botany
Head
Department of Botany
Vivekanand College
Kolhapur

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PRINCIPAL
Vivekanand College
Kolhapur



Botany
B. Sc - I.

Annual Teaching Plan

Academic Year: 2018-19 Semester: II Department: Botany

Subject: Botany Course Title: Plant Ecology and Taxonomy

Name of the teacher: S. A. Patil

Month: December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	00	05	Unit 1. Ecological factors and plant communities.	Introduction and Ecological factors. (1) Edaphic factors
Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	00	05	Unit 1. Ecological factors and plant communities	(2) Climate factors
Month: Feb - March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	00	05	Unit 1. Ecological factors and plant communities	(3) Ecological adaptation and soil pollution.

S. A. Patil
Name and Signature of Teacher

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



1-11-2021

BSc-I.

Annual Teaching Plan

Academic Year: 2018-19

Semester: I

Department: Botany

Subject: Botany

Course Title: Bryophytes, Pteridophytes & Gymnosperms

Name of the teacher: S.A. Patil

Month ... July-August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04	Unit 3- Pteridophytes	General characters Classification
Month ... September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04		Selaginella.
Month ... October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04	Gymnosperms	Morphology Anatomy & Life cycle of Cycas

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Name and Signature of Teacher

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



Annual Teaching Plan

Academic Year: 2018-19 Semester: III Department: Botany

Subject: Botany Course Title: Algae, Fungi, Bryophytes and Industrial Applications
 Name of the teacher: S.A. Patil

Month: July-August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04	Unit-1 Algae.	Study of life cycle. Reproduction.
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04	Unit 1 - Algae	Oedogonium
Month: October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04	Unit 1 - Algae	Sargassum

P. S.
 Name and Signature of Teacher

[Signature]
 Name and Signature of HoD
 Department of Botany
 Vivekanand College
 Kolhanur



Annual Teaching Plan

Academic Year: 2018-19

Semester: IV


Department: Botany

Subject: Botany

Course Title: Pteridophytes, Gymnosperms, Angiosperms & etc.

Name of the teacher: S. A. Patil

Month: <u>December</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
07	-	07	Unit 4 - Plant Anatomy	1) Primary str of Monocot.
Month: <u>January</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
07	-	07	Unit - 4 - Plant Anatomy	2) Normal Secondary growth
Month: <u>Feb. March</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
07	-	07	Unit 4 - Plant Anatomy	3) Periderm and lenticel.


Name and Signature of Teacher


Name and Signature of HoD

Head
Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year: 2018-19 Semester: VI Department: Botany

Subject: Botany Course Title: Plant breeding, Biostatistics, Ethnobotany

Name of the teacher: S. A. Pahl and Horticulture

Month ... DEC			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04	Biostatistics	Collection Presentation
Month ... January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04	Biostatistics	Central Tendency Mean, mode, median
Month ... Feb. - March.			Module/Unit:	Sub-units planned
02	-	02	Biostatistics	Standard deviation, Test of significance

Name and Signature of Teacher

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Head
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Vivekanand College
Kolhapur



Annual Teaching Plan


Academic Year: 2018-19..... Semester: V..... Department: Botany

Subject: Botany..... Course Title: Genetics and Analytical Techniques I

Name of the teacher: S. A. Pahl..... Plant science.....

Month ... July.. August..			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04	Variation in chromosome number and structure	Euploidy and Aneuploidy
Month ... September.....			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04	Variation in chromosome number and structure	Deletion, Duplication, Translocation
Month ... October.....			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	-	02	Variation in chromosome number and structure	Mutation Physical, chemical significance


Name and Signature of Teacher


Name and Signature of HoD
Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year: 2018-19.

Semester: I.

Department: Botany

Subject: Botany

Course Title: Bryophytes, Pteridophytes & Gymnosperm

Name of the teacher: S. B. Kubal.

Month ... July - August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04	Unit 3. Bryophytes and Pteridophytes	1. General characters adaptations
Month ... September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04	Unit 3 - Bryophyte and Pteridophyte	Classification and economic importance. Morphology
Month ... October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	-	04	Unit 3 - Bryophyte and Pteridophyte.	Riccia and Anthoceros.

S. B. Kubal

Name and Signature of Teacher

S. B. Kubal

Name and Signature of HoD
 Department of Botany
 Vivekanand College
 Kolhapur



Annual Teaching Plan

Academic Year: 2018-19 Semester: IV Department: Botany
 Subject: Botany Course Title: Pteridophytes, Gymnosperm, Angiosperm & Anat. & Phys.
 Name of the teacher: S. B. Kishor

Month ... January ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	-	02	Unit 2 - Gymnosperm	1) Study of life cycle. 2) Taxonomic position
Month ... February ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	-	02	Unit 2 - Gymnosperm	1) Anatomy & Reproduction
Month ... March-April ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	-	02	Unit 2 - Gymnosperm	1) Pinus.

S. B. Kishor
 Name and Signature of Teacher

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



Annual Teaching Plan

Academic Year: 2018-19

Semester: III

Department: Botany

Subject: Botany

Course Title: Pteridophytes, Gymnosperm, Angiosperm & Anator

Name of the teacher: S. B. Kumbal

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 3 - Bryophytes	Study of life cycle of reproduction.
02	-	02		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 3 Bryophytes	Thallus structure & taxonomic position
02	-	02		
Month: Sept - October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 3 - Bryophytes	Anthoceros.
02	-	02		

S. B. Kumbal
Name and Signature of Teacher

S. B. Kumbal
Name and Signature of HoD
Head
Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year: 2018-19

Semester: VI

Department: Botany

Subject: Botany

Course Title: Plant breeding, Biostatistics, Ethnobotany & Horticulture

Name of the teacher: S. B. Kubal

Month			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 1 - Plant Improvement	1) Aims & objectives 2) Methods
04	-	04		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 1. Plant Improvement	Selection method Hybrid Vigour
04	-	04		
Month: Feb - March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 1 - Plant Improvement	Hybridisation Heterosis & Male Sterility
02	-	02		

S. B. Kubal

Name and Signature of Teacher

S. B. Kubal

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Department of Botany,
Vivekanand College
Kolhapur



Annual Teaching Plan


Academic Year: 2018-19 Semester: IV Department: Botany

Subject: Botany Course Title: Pteridophytes, Gymnosperms, Angiosperms and Anatomy

Name of the teacher: Mr. S. P. Salofke

Month: December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit 1 - Pteridophytes	1.1. Study of life cycle w/ taxonomic position, occurrence, morphology, anatomy & reproduction of following types. a) Psilotum (Psilopsida) Practical - 7. Study of Angiospermic families
Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit - 1. Pteridophytes	1.1. Study of life cycle w/ taxonomic position, occurrence, morphology, anatomy & reproduction of following types a) Psilotum (Psilopsida) b) Equisetum (Sphenopsida) Practical 8. Study of Double staining technique 9. Study of Normal Sec' growths
Month: February			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	04	09	Unit - 1. Pteridophytes	1.1. Study of life cycle w/ taxonomic position, occurrence morphology, anatomy & reproduction of following types. (b) Equisetum (Sphenopsida) Practical 10. Study of Annular Sec' growth 11. Study of Wood Anatomy,


Name and Signature of Teacher


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



Annual Teaching Plan

Academic Year: 2018-19 Semester: I Department: - Botany

Subject: Botany Course Title: Biodiversity in Cryptogams and Gymnosperms (Paper-I)

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

Month: July-Aug			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 2b. Fungi General characters and Classification.	General characters and classification. Practical Study of Bacteria Study of Nostoc.
04	04	08		
03	03	06		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 2b. Fungi	a) Study of Mucor b) Study of Penicillium Practical 1) Study of Spirogyra 2) Study of Mucor & Penicillium.
04	04	08		
04	04	08		
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 2b. Fungi	VAM fungi and its importance Practical 1) Study of VAM fungi 2) Study of Riccia.
04	04	08		
04	04	08		

Name and Signature of Teacher

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Annual Teaching Plan

Academic Year: 2018-19

Semester: II


Department: Botany

Subject: Botany Course Title: Plant Ecology and Taxonomy.

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

Month ... December ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit 1- Ecological Factors and Plant Communities.	1a. Introduction and Definition of Ecology. 1b. (ii) Ecological factors (iii). Ecological adaptations. <u>Practical</u> Study of Bryophyte and Pteridophyte
Month ... January ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit 1- Ecological factors and Plant communities.	1c. Ecological Succession. <u>Practical.</u> Study of Ecology Study of Taxonomy.
Month ... February ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
03	03	06	Unit 1- Ecological factors and plant Communities.	1d. Ecological Interaction. <u>Practical</u> Study of Plant families


Name and Signature of Teacher


Name and Signature of HoD
Head
Department of Botany
Vivekanand College
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Annual Teaching Plan

Academic Year: 2018-19 Semester: III Department: Botany

Subject: Botany Course Title: Algae, Fungi, Bryophytes and Industrial Application
 Name of the teacher: Mr. S. P. Salotke

Month ... July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 2. Fungi	2.1. Study of following types w.r.t taxonomic position, occurrence, str. of mycelium, nutrition and reproduction in: (a) Penicillium (Ascomycotina) (b) Puccinia (Basidiomycotina) Practical - 1 1. Study of Algae 2. Study of Fungi
04	04	08		
Month ... August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 2. Fungi	2.1. Study of following types w.r.t. taxonomic position, occurrence, str. of mycelium, nutrition and reproduction in: (b) Puccinia (Basidiomycotina). 2.2 - Lichen - Introduction Practical 3. Study of Bryophyte 4. Study of Rhodophyte
04	04	08		
Month ... September ..			Module/Unit:	Sub-units planned
06	04	08	Unit - 2 Fungi	2.2. Lichen - Nature of Association of phycobionts and mycobionts, Types of Lichen & Economic importance Practical 5. Study of Gymnosperm 6. Study of Inflorescence, Flower

Name and Signature of Teacher

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 Head
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 Vivekanand College
 Kolhapur



Annual Teaching Plan

Academic Year: 2018-19

Semester: IV

Department: Botany


Subject: Botany

Course Title: Pteridophytes, Gymnosperms, Angiosperms and Anatomy

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

Month ... <u>December</u> ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 1 - Pteridophytes	1.1. Study of life cycle w.r.t taxonomic position, occurrence, morphology, anatomy & reproduction of following types. a) Psilotum (Psilopsida) Practical - 7. Study of Angiospermic families
04	04	08		
Month ... <u>January</u> ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit - 1. Pteridophytes	1.1. Study of life cycle w.r.t taxonomic position, occurrence, morphology, anatomy & reproduction of following types. a) Psilotum (Psilopsida) b) Equisetum (Sphenopsida) Practical 8. Study of Double staining technique 9. Study of Normal Sec' growths
04	04	08		
Month ... <u>February</u> ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit - 1. Pteridophytes	1.1. Study of life cycle w.r.t taxonomic position, occurrence, morphology, anatomy & reproduction of following types. (b) Equisetum (Sphenopsida) Practical 10. Study of Anamalous Sec' growths 11. Study of Wood Anatomy
05	04	09		


Name and Signature of Teacher


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



Annual Teaching Plan

Academic Year: 2018-19 Semester: V Department: Botany

Subject: Botany Course Title:

Name of the teacher: Mr. S.P. Sabotke

Month: July			Module/Unit	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit - 2 - Fungi	2.1. Occurrence to distribution of Fungi Practical 1. Identification of following algae (a) Oscillatoria (b) Lyngbya (c) Ectocarpus (d) Padina (e) Gelidium 2-3. Life cycle of (a) Chara (b) Ectocarpus 4. Identification of (a) Penicillium (b) Alternaria (c) Clavaria (d) Melanospore (e) Aspergillus (f) Agaricus
Month: August			Module/Unit	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit - 2 - Fungi	2.2. Types of reproduction in Fungi Practical 5-6 Life cycle of (a) Albugo (b) Uromyces 7. Identification of (a) Marchantia (b) Chara (c) Lyngbya (d) Penicillium 8-9 - Life cycle of Funaria 10. Identification of (a) Albugo (b) Aspergillus (c) Esmunda (d) Blechnum
Month: September/October			Module/Unit	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit 2 - Fungi	2.3 Study of following types with emphasis on classification, str, myc nutrition, Reproduction & Economic imp. (a) Albugo (b) Uromyces Practical 11-12 - Life cycle of Marchantia 13-14 - Life cycle of Funaria

Name and Signature of Teacher

Name and Signature of HoD
Head

Department of Botany
Vivekanand College
Kolhapur



Academic Year: 2018-19 Annual Teaching Plan
 Semester: VI Department: Botany.
 Subject: Botany Course Title:
 Name of the teacher: Mr. S. P. Salokhe.

Month: December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit - 3 Angiosperms	3.1 - Phylogeny of Angiosperms. 3.2 - System of Classification. <u>Practical</u> 15. Study of types of fossils. 16. Study of Fossil gymnosperms - Lyginopteris. 17. Study of fossil gymnosperms - Enigmodon.
Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit - 3 Angiosperms	3.5. Modern Taxonomy. <u>Practical</u> 18-19. Preparation of PDA 20. Inoculation of Fungi.
Month: February/March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	00	02	Unit - 3. Angiosperms.	3.4. Flower. 21. Isolation of Separation of soil 22-24. Plant Diseases 25. Study of fermentation.

Name and Signature of Teacher



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

Annual Teaching Plan

Academic Year: 2018 - 2019 Semester: II Department: Botany

Subject: Botany Course Title: Biodiversity in Microptogams and Gymnosperms. (Paper-I)
 Name of the teacher: Dr. A. R. Kasabkar

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit - 2 a - Algae General Character and Classification Practical - I	General Characters and classification. Study of <u>Bacillaria</u> Study of <u>Nostoc</u> .
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit 2a - Algae	1) Study of <u>Nostoc</u> 2) Study of <u>Spirogyra</u> Practical 1) Study of <u>Spirogyra</u> 2) Study of <u>Mucor</u> and <u>Penicillium</u>
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit 2a - Algae	Algal biofertilizer and its importance. Practical: 1) Study of VAM Fungi 2) Study of <u>Riccia</u> .

(Signature)

Name and Signature of Teacher



(Signature)

Name and Signature of HoD
 Department of Botany
 Vivekanand College
 Kollhapur

Annual Teaching Plan

Academic Year: 2018 - 2019 Semester: II Department: Botany

Subject: Botany Course Title: 'Plant Ecology and Taxonomy' Paper: II

Name of the teacher: Dr. A. R. Kasoalkar

Month: <u>December</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit-3 Plant Taxonomy	2a - Salient Features of Angiosperms 2b - Introduction and Importance of taxonomy Practical - study of Bryophyte and Pteridophyte
04	04	08		
Month: <u>January</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 3 Plant Taxonomy	2c - Functions of Taxonomy 2d - ICBN Practical - study of Ecology Study of Taxonomy
04	04	08		
Month: <u>February</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 3: Plant Taxonomy	2e - Bentham and Hooker's system Practical - study of Plant-Families
03	03	06		

A. R. Kasoalkar

Name and Signature of Teacher



[Signature]

Name and Signature of HoD

Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2018-2019 Semester: III Department: Botany

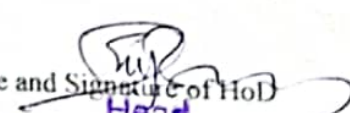
Subject: Botany Course Title: Plant Physiology, Ecology and Horticulture

Name of the teacher: Dr. A. R. Kasurkar

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit-4- Horticulture	4.1: Scope and Branches of Horticulture
04	00	04		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit-4- Horticulture	4.1.1 ornamental and landscape gardening
04	00	04		
Month: September, October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit-4- Horticulture	4.2 Propagation of Horticultural plants. a) Sexual b) Agam Asexual
06	00	06		



Name and Signature of Teacher



 Name and Signature of HoD

 Head
 Department of Botany
 Vivekanand College
 Kolhapur

Annual Teaching Plan

Academic Year: 2018-2019 Semester: IV Department: Botany

Subject: Botany Course Title: Pteridophytes, Gymnosperms, Angiosperms and Anatomy

Name of the teacher: Dr. A. R. Kasarkar

Month <u>December</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	<u>Unit-3 - Angiosperms</u>	<u>3.1 - Morphology of Inflorescence, Flowers and Fruits.</u>
<u>04</u>	<u>00</u>	<u>04</u>		
Month <u>January</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	<u>Unit-3 - Angiosperms</u>	<u>3.2 Bentham and Hooker system</u>
<u>04</u>	<u>00</u>	<u>04</u>		
Month <u>February</u> <u>March</u>			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	<u>Unit-3 - Angiosperms</u>	<u>3.3 Botanical Gardens</u>
<u>04</u>	<u>00</u>	<u>04</u>		

A. R. Kasarkar

Name and Signature of Teacher



[Signature]

Name and Signature of HoB
Head

Department of Botany
Vivekanand College
Kolhapur

Annual Teaching Plan

Academic Year: 2018-2019 Semester: III Department: Botany

Subject: Plant Protection Course Title: Major Crops and Methods of Integrated Plant Protection

Name of the teacher: Dr. A. R. Kasarkar

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit No-3 Methods of Weed Management	B.1 - Cultural Methods
04	04	08		B.2 - Biological Methods
				Practical - 1) Study of crops - Jowar, 2) Groundnut, Gram, Sugarcane
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit No-3 Methods of Weed Management	3.2 - Chemical Methods
04	04	08		3.4 - Study of Weedicides
				Practical - 3) Study of diseases - Phytoplasmal Diseases 4) Viral Diseases
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit No-3 Methods of Weed Management	3.4 study of Weedicides
04	04	08		Practical - 1) Study of Diseases - 2) Study of Fungal Disease. 3) Preparation of PDA

A. R. Kasarkar

Name and Signature of Teacher

[Signature]
Name and Signature of HoD
Head

Department of Botany
Vivekanand College
Kolhapur



Annual Teaching Plan

Academic Year 2018-2019 Semester IV Department Botany

Subject Plant Protection Course Title Insect Pest and Their Management

Name of the teacher Dr. A. R. Kasabkar

Month			Module/Unit	Sub-units planned
December			Unit No. 4 - Recent Trends in Pest Management	a) Attractants b) Repellents <u>Practicals:</u> 1) Soil Fungi 2) Study of Fungicides. 3) Micrometry
Lectures	Practicals	Total		
04	04	08		
January			Unit No. 4 - Recent Trends in Pest Management	c) Antifeedents d) Pheromones <u>Practical</u> 1) Sucrose percentage 2) Determination of pH and electrical conductivity
Lectures	Practicals	Total		
04	04	08		
February March			Unit No. 4 - Recent Trends in Pest Management	e) Chemosterilant f) Precautionary measure. <u>Practical -</u> D Project Submission.
Lectures	Practicals	Total		
04	02	06		

A. R. Kasabkar
Name and Signature of Teacher

[Signature]
Name and Signature of HOD
Department of Botany
Vivakanand College
Kashinor



Annual Teaching Plan

Academic Year: 2018-2019 Semester: V Department: Botany

Subject: Botany Course Title: Biology of Non Vascular Plants and Paleobotany (Type)

Name of the teacher: Dr. A. R. Kasarkar

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit - 1 - Algae	1.1 - Occurrence and distribution of Algae 1.2. Origin and evolution of sex in Algae Practical :- study of Plant Families
04	04	08		
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit - 1 - Algae	1.3 - study of life cycle in algae. Practical - study of Plant Families
04	04	08		
Month: September October			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit - 1 - Algae	1.4 study of a) Chara b) Ectocarpus. Practical - study of Plant Families
04	04	08		

Dr. Kasarkar
 Name and Signature of Teacher

[Signature]
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 Kolhapur



Annual Teaching Plan

Academic Year: 2018-19 Semester: VI Department: Botany

Subject: Botany Course Title: Plant Breeding, Biostatistics, Ethnobotany and Horticulture

Name of the teacher: Dr. A. R. Kasorkar

Month: December			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit-4- Horticulture	4.1 - Gardening <u>Practical -</u> 1) study of Anatomy 2) study of Physiology 3) study of Genus and Species
04	04	08		
Month: January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit-4- Horticulture	4.2 - Ornamental Plants 1) study of Environmental Biology
04	04	08		
Month: February March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Unit 4- Horticulture	4.3 - Plant Nursery Management
02	00	02		

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Name and Signature of Teacher

(Signature)

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Annual Teaching Plan

Academic Year: 2018-19 Semester: I Department: Botany
 B.Sc. III
 Subject: Botany Course Title: Genetics & Analytical Techniques in Plant Science
 Name of the teacher: Miss. Snehal Sanjay Wadkar Plant bio-chemistry

Month June, July...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	3	07	Paper X: Unit 2 : Extra chromosomal Inheritance.	Introduction Plastid inheritance Mitochondrial inheritance
Month August- Sep..			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	4	08	Paper XII Unit 3: Protein Metabolism	Introduction, structure & properties of AA Proline synthesis Protein Structure & classification
Month October.....			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
03	4	07	Paper XII Unit 3: Protein Metabolism	Protein biosynth- esis in pro and eukaryotes Post translational modifications


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Annual Teaching Plan

Academic Year: 2018-19


Semester: V
B.Sc-III

Department: Botany

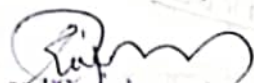
Subject: Botany Course Title: Biodiversity in Cryptogams & Gymnosperms

Name of the teacher: Miss. Snehal Sanjay Wadkar

Month .. June - July ..			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section I: Unit 1 - Microbes	1a. Virus: Discovery, General characters DNA virus RNA virus Economic import- ance
04	03	07		
Month .. August - September ..			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section II: Unit 1 - Microbes	1b. Bacteria: Discovery, General characters Cell structure & types Mode of reproduction
04	03	07		
Month .. October ..			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section II: Unit 4 - Gymnosperms	General characters Classification General characters of class. Economic import- ance of gymnosperm
04	04	08		


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

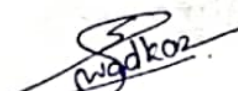




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Kolhapur

Annual Teaching Plan

Academic Year: 2018-19 Semester: II Department: Botany
 B.Sc. I
 Subject: Botany Course Title: Plant Ecology & Taxonomy (Section I)
 Name of the teacher: Ms. Snehal Sanjay Wadkar

Month Dec...January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Section I Unit 2: Ecosystem and Phytogeography	2a. Ecosystem Introduction, Composition - Abiotic & Biotic components food chain & food web
Month February, March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Section I Unit 2: Ecosystem and Phytogeography	Biogeochemical cycles - Introduction Phosphorus cycle
Month March, April...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Section I Unit 2: Ecosystem and Phytogeography	Nitrogen cycle phytogeographic region of India


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

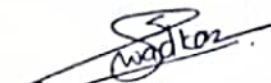

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Annual Teaching Plan

Academic Year: 2018-19 Semester: VI Department: Botany
 Paper XIII, XIV
 Subject: Botany Course Title: Biology of Vascular Plants; Microbiology and Plant Pathology
 Name of the teacher: Miss. Snehal Sanjay Wadkar

Month .. DEC. .. January			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Paper XIII Unit 1: Pteridophytes	General account of Pteridophytes with reference to str. of gametophytes. Alternation of generations. Sexual evolution
Month .. February, March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	02	06	Paper XIII Unit 1: Pteridophytes Paper XIV Unit 2: Microbial Genetics	Study of life cycle of <u>Mosses</u> Introduction Bacterial genome DNA viruses
Month .. March .. April ..			Module/Unit:	Sub-units planned
04	04	08	Paper XIV Unit 2: Microbial Genetics.	RNA viruses Recombination in Bacteria Transformation Transduction. conjugation


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




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Team-I

Annual Teaching Plan

Academic Year: 2018-19 Semester: III Department: Botany

Subject: Plant-Protection Course Title: Major crops, methods of Integrated, Name of the teacher: Dr. Jyoti M. Gaware Plant-Protection

Month ... June.. July..			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	03	07	Unit - III General methods of plant protection	Cultural methods- Tillage, crop rotation, trap crops
Month			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08		Mechanical methods field sanitation, light traps, use of sticky bands
Month			Module/Unit:	Sub-units planned
03	04	07		Bagging for the pests Physical methods- heat & soil solarization

Jmml

Name and Signature of Teacher

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Annual Teaching Plan

Academic Year: 2018-19 Semester: V Department: Botany

Subject: Botany Course Title:

Name of the teacher: Dr. Jyoti Mahadev Gonde

Month ... June-July ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	03	07	Plant biochemistry Unit - II Lipid Metabolism practical - III	Introduction & Classification of lipids
Month ... Aug ... Sept ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	03	07	practical - III	Properties of saturated & unsaturated fatty acids
Month ... October ...			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	practical - III	β oxidation, Gluconeogenesis Significance of lipids

Jyoti

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Annual Teaching Plan

Academic Year: 2018-19 Semester: IV Department: Botany

Subject: Plant Protection Title: Crop Diseases & their management

Name of the teacher: Dr. Jyoti M. Gosule

Month: Dec. Jan.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Unit-3 Study of crop diseases with reference to symp. Pathogen & management.	Little leaf of Boinjal, YVMV, Citrus Canker
Month: Feb. March.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Practical B.Sc. I	Rust of sugarcane, Rust of soybean, Rust of wheat, White rust of crucifers,
Month: Mar. April.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	04	06	Practical B.Sc. I	Grain smut of Jowar Tikka disease of Cotton

J Gosule

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Annual Teaching Plan

Academic Year: 2015-19 Semester: VI Department: Botany

Subject: Botany Course Title: ...

Name of the teacher: Dr. Jyoti Mahadev Gaud

Month ... Dec. Janu.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Molecular Biology & Biotechnology Recombinant DNA Technology	Introduction & Principle, General method & Enzymes involved in DNA Technology
Month Feb. March.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Practical III	Cloning vectors - Prokaryotic & Eukaryotic Vectors
Month March-April.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	04	06	Practical III	Blotting Techniques, PCR, C-DNA Libraries

Jyoti

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Annual Teaching Plan

Academic Year 2018-19

Semester: III

Department - Botany

Subject: Botany Course Title: B.Sc. TL (PP) Methods of Pest Management
 Name of the teacher: Miss C.M. Dalavi

Month: Nov.			Module/Unit	Sub-units planned
Lectures	Practicals	Total		
04	02	08	Methods of Pest Management	Cultural, Biological,
Month: Dec.			Module/Unit	Sub-units planned
Lectures	Practicals	Total		
04	03	07	Methods of Pest Management	Legal methods
Month: January			Module/Unit	Sub-units planned
Lectures	Practicals	Total		
02	04	06	— * —	Crop Resistance

C.M. Dalavi

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Annual Teaching Plan

Academic Year: 2018-19

Semester: IV

Department: Botany

Subject: Botany

Course Title: B.Sc. II (PP) Introduction to weeds & non Insect Pest.

Name of the teacher: Miss C.M. Dalavi

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	02	04	Study of weeds	<u>Euphorbia</u> <u>Amaranthus</u>
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	03	05	Study of weeds	<u>Alteimnthera</u> <u>Cyperous</u>
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	03	05	Study of weeds	<u>Cyperodon</u>

C.M. Dalavi

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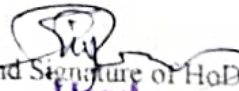
Annual Teaching Plan

Academic Year: 2018-19 Semester: VI Department: Botany
 Subject: Botany Course Title: B.Sc. III Plant Pathology & Ecology
 Name of the teacher: Miss C.M. Dalavi

Month: Nov.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Plant Pathology	Classification seed borne, Soil
04	03	07		
Month: Dec.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Plant Pathology	Air borne.
04	03	07		
Month: Jan.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Plant Pathology	Prevention & Control measures
02	03	05		

C.M. Dalavi

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Annual Teaching Plan

Academic Year: 2018-19 Semester: V Department: Botany
 Subject: Botany Course Title: B.Sc.III - Fundamentals of plant Physiology & Ecology.
 Name of the teacher: Miss C.M. Dalavi

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	03	08	Population Ecology.	Concept, Density, Natality, Mortality.
Month: Aug.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	04	09	Population Ecology	Abiotic & Biotic factors
Month: Sept.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	04	09	Carbohydrate Metabolism.	mono, oligo & Polysaccharides.

C.M. Dalavi

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Annual Teaching Plan

Academic Year 2018-2019 Semester I Department: Botany

Subject: Botany Course Title: B.Sc.I. (Bryophyte, Pteridophyte and Gymnosperms)
 Name of the teacher: Dr. A.R. Aliker

Month July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
-	04	04	-	-
Month Aug			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
-	04	04	-	-
Month Sept			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
-	04	04	-	-

Dr. A.R. Aliker
 Name and Signature of Teacher

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



Annual Teaching Plan


Academic Year: 2018-2019 Semester: II Department: Botany

Subject: Botany Course Title: B.Sc.I. (Plant Ecology).

Name of the teacher: Dr. A. D. Alvisekar.

Month: Dec.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Set-I Unit-1. Ecological Factors and Plant Communities	1a. Introduction and Definition of Ecology. 1b. i. Edaphic Factors.
Month: Jan			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Set-I - Unit-2. Ecological Factors and Plant Communities	1b. ii. Climatic Factors. 1c. Ecological Adaptations Hydrophytes, Xerophytes.
Month: Feb			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
03	04	07	Set 2 - Unit - I Ecological Factors and Plant Communities	Epiphytes and Parasitism.


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Annual Teaching Plan

Academic Year: 2018-2019 Semester: III Department: Botany.

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

Name of the teacher: Dr. A.R. Aniker.

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Section-II Unit-III: Mineral Nutrition.	2a. Introduction criteria of essentiality 2b. Macronutrients.
Month: August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Section-II Unit-III: Mineral Nutrition.	2b. Micronutrients. 2c. Passive uptake 2c. Active uptake. 2c. Protein Leathin Theory.
Month: September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	04	06	Section-II Unit-III Mineral Nutrition.	2d. Role of deficiency of Macronutrients & Micronutrients in Plants.

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Name and Signature of Teacher

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Department of Botany
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Annual Teaching Plan

Academic Year: 2018-2019 Semester: IV Department: Botany.

Subject: Botany Course Title: B.Sc. II (Plant Anatomy).

Name of the teacher: Dr. A.R. Alvikar.

Month Dec.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	sect - I Unit - 2 Tissue and Tissue System	2a. Meristem Introduction & Classification
Month Jan.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	sect - I Unit - 2 Tissue & Tissue System	2b. Theories of Structural development. Apical, Histogen, Tunica corpus theory
Month Feb.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
03	03	06	sect - I Unit - 2 Tissue & Tissue System.	2b - Permanent Tissue. - Simple & complex.

Dr. A.R. Alvikar

Name and Signature of Teacher

[Signature]

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Department of Botany
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Kolhapur



Annual Teaching Plan

Academic Year: 2018-2019 Semester: IV Department: Botany.

Subject: Botany Course Title: B.Sc. II (Plant Anatomy).

Name of the teacher: Dr. A.R. Alvikar.

Month: March			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	03	07	sect-I Unit 2 - TISSUE and Tissue systems.	Epidermal, secretory, Mechanical tissue system.
Month:			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
Month:			Module/Unit:	Sub-units planned

Dr. Alvikar

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[Signature]
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Annual Teaching Plan

Academic Year: 2018-2019 Semester: IV Department: Botany.

Subject: Botany Course Title: B.Sc. III (Plant Systematics and

Name of the teacher: Dr. A. R. Alvikar. Paleobotany).

Month: July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section-II Unit-IV Paleobotany	4a. General account types of fossils, Geological time scale.
02	04	08		
Month: Aug.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section-II Unit-IV Paleobotany	4b. External and Morphology and affinities of <u>lygonopteris</u> and <u>Enigmocarpus</u>
02	04	08		
Month: Sept.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total	Section-II Unit-IV Paleobotany.	4c. Application of paleobotany - Role of microfossils in oil and coal exploration.
03	04	07		

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(Signature)

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Department of Botany
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Annual Teaching Plan

Academic Year: 2018-2019 Semester: VI Department: Botany.

Subject: Botany Course Title: B.Sc. III (Molecular Biology and Biotechnology)

Name of the teacher: Dr. A. R. Alvilkar.

Month: Dec.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Section-I Unit-1 Genetic Material.	1a. Introduction Nucleic acids (DNA, RNA)
Month: Jan.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	04	08	Section-I Unit 1- Genetic Material.	1b. Griffith's & Avery's transformation experiment Hershey - chase. expt. 1c. DNA Structure.
Month: Feb.			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
03	04	07	Section-I Unit 1 - Genetic Material	1c. Types of DNA 1d. DNA replicat ⁿ 1e. Types of RNA

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Annual Teaching Plan

Academic Year: 2018-2019 Semester: III Department: - Botany -

Subject: Botany Course Title: B.Sc. II. Algae, Fungi, Bryophytes Industrial Appli.
Name of the teacher: Miss U.H. Godase

Month ... July			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
03	02	05	Industrial Applicat ⁿ	mushroom cultivation - N ₂ fixation
Month ... August			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
03	03	06	Industrial Application	Commercial Importance. Biofertilizers, Types.
Month ... September			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
02	03	05	Industrial Application	BGA, Phosphate solubilizing Biofertilizers.

Name and Signature of Teacher *U.H. Godase*

Name and Signature of HoD *[Signature]*

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Kolhapur



Annual Teaching Plan

Academic Year - 2018-19

Semester: V

Department: - Botany

Subject: Botany

Course Title: B.Sc. III

Paleobotany & Biology of non vascular plants

Name of the teacher:

Miss U.H. Godase

Month			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
July			Paleobotany	Types of fossils Geological Time Scale
04	02	06		
Aug.			Paleobotany	Lyginopteris Equisetum
04	03	07		
Sept.			Paleobotany	Application of Paleobotany
02	03	05		

U.H. Godase

Name and Signature of Teacher

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Kolhapur



Annual Teaching Plan

Academic Year: 2018-19

Semester: IV

Department: Botany

Subject: Botany Course Title: B.Sc. II - Cytogenetics & Utilization of plant resources.

Name of the teacher: Miss U.H. Godase

Month			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	03	08	Nucleus & Ribosomes	Ultrastructure DNA & Histones
Month			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	04	09	Nucleus & Ribosomes	Subcellular structures & cell membrane. Microtubules
Month			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	04	09	Nucleus & Ribosomes.	Golgi Complex, ER, cell membrane

U.H. Godase

and Signature of Teacher

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Annual Teaching Plan

Academic Year: 2018-2019

Semester: VI

Department: Botany

Subject: Botany Course Title: B.Sc. III. Microbiology & Plant Pathology

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

Month			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	03	08	Microbiology	Staining, Sterilization
Month			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
05	03	08	Microbiology	Micro-organisms in biological world,
Month			Module/Unit:	Sub-units planned
Lectures	Practicals	Total		
04	03	07	Microbiology,	Industrial Applications.

Godase

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