

"Dissemination of Education for Knowledge, Science and Culture"  
-Shikshanmaharshi Dr. Bapuji Salunkhe


Shri Swami Vivekanand Shikshan Sanstha's  
**Vivekanand College, Kolhapur (Empowered Autonomous)**  
**Department of Zoology**  
**Academic year: 2023-24**

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## Syllabus Completion Report (Term II)

1. Dr. G. K. Sontakke
2. Dr. T. C. Gaupale
3. Dr. S. P. Khairmode
4. Dr. S. S. Desai
5. Mr. G. H. Fadake
6. Dr. T. C. Patil
7. Ms. P. S. Shetfalkar
8. Ms. N. A. Jadhav
9. Ms. A. P. Sutar
10. Ms. P. R. Gaikwad



  
Dr. G. K. Sontakke  
**HEAD**  
DEPARTMENT OF ZOOLOGY  
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Department of Zoology


Academic year: 2023-2024

**SYLLABUS COMPLETION REPORT**

**Teacher Name: Dr. G. K. Sontakke**

Class	Subject	Total Units	Completed Units	Remaining Units
<b>B.Sc. II Semester II</b>	Cell Biology, Genetics, Evolution and Ethology (Section II)	1	<b>Unit IV- Ethology</b> Classification of Animal behavior, Inborn and instinct behavior with suitable example, Acquired animal behavior- imprinting, conditioning, habitual, reasoning Types of mimicry- protective and aggressive, Types of coloration- protective aggressive and warning, Social behavior in animals- honey bee and ant.	<b>NIL</b>
<b>B.Sc. III Semester VI</b>	Aquatic Biology	1	<b>Unit I: Freshwater Biology</b> 1. Introduction of the aquatic biomes: Freshwater ecosystem (wetlands, streams and rivers) 2. Origin and classification Ponds & lakes, physicochemical characteristics and nutrient cycling 3. Streams: Types of streams, physicochemical environment, conservation of streams, adaptation of hill stream fishes 4. Estuaries: Characteristics & types (based on salinity) 5. Eutrophication	<b>NIL</b>

  
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**PRACTICAL COMPLETION REPORT**

**Teacher Name: - Dr. G. K. Sontakke**

Class	Practical No.	Batch	Practical based on paper	Remaining Units
B. Sc. II	Practical I	S12	Mammalian Physiology and Biochemistry	<b>NIL</b>
B.Sc. III	Practical VIII	T4	Ecology and Toxicology & Aquatic Biology	<b>NIL</b>

  
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### SYLLABUS COMPLETION REPORT

Teacher Name: Dr. T.C. Gaupale

Term II

#### Practicals

Class	Practical No.	Batch	Practical Based on paper	Remaining Practicals
B. Sc. I	Practical I & II	F22, F17 & F18	Practicals based on Animal Diversity II Practicals based on Genetics Vermicomposting	NIL
B. Sc. II	Practical II	S13	Cell Biology, Genetics, Evolution and Ethology	NIL
B. Sc. III	Practical I	T2	Developmental Biology-I Developmental Biology-II	NIL

#### Theory

Class	Theory	Unit	Units/Paper title	Remaining Topics
B. Sc. I	Theory	Unit I	GENETICS Introduction to Genetics Brief explanation of following terms Mendelian Genetics Extension of Mendelian Genetics	NIL
		Unit II	Mutations, Basics of Human genetics Karyotype, Sex Determination Genetic Disorders	NIL
B. Sc. III	Theory	Unit I	Immunology- I Introduction to basic concepts in immunology, components of immune system, Types of immunity, Haematopoiesis Cells in immune system, Organs of immune system-	NIL

  
Dr. Teekhand C. Gaupale

  
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**PRACTICALS COMPLETION REPORT**

**Teacher Name: Dr. T.C. Gaupale**

<b>Class</b>	<b>Practical No.</b>	<b>Batch</b>	<b>Practical Based on paper</b>	<b>Remaining Practicals</b>
B. Sc. I	Practical I & II	F22 F17 & F18	Animal Diversity II and Genetics Vermicomposting	NIL
B. Sc. II	Practical II	S13	Cell Biology, Genetics, Evolution and Ethology	NIL
B. Sc. III	Practical I	T2	Developmental Biology-I and Developmental Biology-II	NIL



**Dr. T. C. Gaupale**



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**SYLLABUS COMPLETION REPORT**

Teacher Name: **Dr. Sneha S. Desai**

Class	Subject	Total Units	Completed Units	Remaining Units
B.Sc. III Semester VI	Immunology-II	1	<b>Working of the Immune system –</b> 1. Structure and functions of MHC 2. Exogenous and endogenous pathways of antigen presentation and processing 3. Basic properties of signalling molecules- cytokines and their types (chemokines, interleukins, interferons, lymphokines, tumour necrosis factor) 4. Complement system: Components and pathways (classical & alternative)	NIL
B.Sc. II Semester: IV	Cell Biology, Genetics, Evolution and Ethology (Section I)	1	<b>Linkage, Crossing Over-</b> Types of linkage and mechanism of crossing over, Cytological evidence of crossing over, Significance of crossing over <b>Mutations-</b> Chromosomal mutations: Deletion, Duplication, Inversion, Translocation, Aneuploidy and Polyploidy, Gene mutations: Induced versus Spontaneous mutations, Frameshift mutation, Point mutation <b>Sex Determination-</b> Dosage compensation, Chromosomal theory of sex determination, Sex linked inheritance, Geneic balance theory, Haploidy-diploidy mechanism, Environmental sex determination	NIL

  
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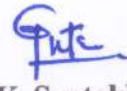
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**PRACTICALS COMPLETION REPORT**

Teacher Name: Dr. Sneha S. Desai

Class	Practical No.	Batch	Practical Based on paper	Remaining Practicals
B. Sc. I	Practical I & II	F17& 18	Animal Diversity II and Genetics Vermicomposting	NIL
B. Sc. II	Practical I	S9	Cell Biology, Genetics, Evolution and Ethology	NIL
B. Sc. III	Practical I	T1	Molecular Biology and Biotechniques and Animal Biotechnology	NIL

  
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**SYLLABUS COMPLETION REPORT**

**Teacher Name: Dr. Shilpa P. Khairmode**

Class	Subject	Total Units	Completed Units	Remain ing Units
<b>B.Sc. I Semester II</b>	<b>Animal Diversity II</b>	UNIT- II	General Characters and classification up to subclasses; Important characters of following Eutherian orders with examples, Primates, Chiroptera and Rodentia	<b>NIL</b>

  
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**SYLLABUS COMPLETION REPORT**

**Teacher Name: Dr. Shilpa P. Khairmode**

Class	Subject	Total Units	Completed Units	Remaining Units
B.Sc. III Semester VI Paper XV	Ecology and Toxicology	UNIT- II	Toxicology  3.Heavy metal toxicity- Mercury, Lead and Cadmium  4.Classification of toxic agents- Natural, animal, plant, food and chemical toxins	NIL

  
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**SYLLABUS COMPLETION REPORT**

**Teacher Name: Mr. Ganesh H. Fadake**

Class	Subject	Total Units	Completed Units	Remaining Units
<b>B.Sc. II Semester IV</b>	Cell Biology, Genetics, Evolution and Ethology	1/2	<b>Mendelian Genetics and its Extension</b> Terminology in genetics, Principles of inheritance, Chromosomal theory of inheritance, Incomplete dominance and codominance, Multiple alleles with respect to ABO	<b>NIL</b>



**Mr. Ganesh H. Fadake**



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**SYLLABUS COMPLETION REPORT**

Teacher Name: Ms. Pallavi S. Shetfalkar

Class	Subject	Total Units	Completed Units	Remaining Units
<b>B.Sc. I Semester II</b>	Animal Diversity II	1	<b>Unit I</b> <b>Protochordata:</b> General characters and Classification of Protochordata <b>Agnatha:</b> General characters of Agnatha and Classification of cyclostomes up to classes <b>Pisces:</b> General characters of Pisces, General characters of Chondrichthyes and Osteichthyes with examples; aquatic adaptations of fishes <b>Amphibia:</b> General features and Classification up to orders; Parental care in Amphibia	<b>NIL</b>
<b>B.Sc. III Semester VI</b>	Aquatic Biology	2	<b>Marine Biology</b> 1. Introduction of marine ecosystem: Structure & zonation of sea & ocean 2. Physico-chemical properties of seawater- salinity, density, viscosity, surface tension, concept of chlorinity and salinity of sea water. 3. Coral & coral reefs: Types & economic importance 4. Continental shelf, adaptations of deep sea organisms.	<b>NIL</b>

  
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**SYLLABUS COMPLETION REPORT**


**Semester:** III & IV


**Subject:** Mammalian Physiology and Biochemistry

**Teacher Name:** - Ms. P. S. Shetfalkar

**Course title:** B.Sc. II

Class	Practical No.	Batch	Practical based on paper	Remaining Practicals
B. Sc. II	Practical I	S12	Mammalian Physiology and Biochemistry	<b>NIL</b>

  
**Ms. P. S. Shetfalkar**

  
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**Teacher Name: Dr. T. C. Patil**

Class	Subject	Total Units	Completed Units	Remaining Units
B.Sc. III Semester VI	Immunology-II	1	Unit II: Immune system in health and disease Gell and Coombs' classification and brief description of various types of hypersensitivities, Introduction to concepts of autoimmunity and immunodeficiency and Autoimmune disorders Unit 7: Vaccines General introduction to vaccines, types of vaccines, production of vaccines	NIL
B.Sc. II Semester: IV	Cell Biology, Genetics, Evolution and Ethology	1	<b>UNIT-IV</b> Direct Evidences of Evolution: Types of fossils, Process of fossilization, Dating of fossils, Species Concept: Biological species concept (Advantages and limitations); Modes of speciation (Allopatric, Sympatric, Peripatric and Parapatric) Extinction: Mass extinction (Causes, Names of five major extinctions, K-T extinction in detail), Role of Extinction in evolution.	NIL

  
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**PRACTICALS COMPLETION REPORT**

Teacher Name: Dr. T. C. Patil

Class	Practical No.	Batch	Practical Based on paper	Remaining Practicals
B. Sc. I	Practical I & II	F20	Public Health and Hygiene, Haematology Diversity in living organism and structural Organisation in Animals	NIL
B. Sc. II	Practical II	S9	Cell Biology, Genetics, Evolution and Ethology	NIL
B. Sc. III	Practical IV	T4	Immunology	NIL

  
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**Syllabus Completion Report- Term II**

**Teacher Name:** Miss. Namrata A. Jadhav

Class	Paper	Total Units	Completed Units	Remaining Units
B.Sc. III Semester -VI	Ecology and Toxicology	1	<b>Ecology</b> 1.Introduction and scope of ecology 2.The structure, function, types ecosystem, abiotic and biotic components, 3.Concept of habitat & niche- niche width and overlap, fundamental & realised niche. 4. Food chain, food web and ecological pyramids, 5. Species interactions-types of interaction (competition, predation, commensalism, parasitism, mutualism, amensalism) 6.Community ecology: Nature of communities, characteristics (species richness, dominance, diversity, abundance), ecotone and edge effect 7.Ecological succession -Types of succession (primary, secondary), stages of succession, mechanisms of succession, types of seres (hydrosere, lithosere) 8.Ecological adaptation in aquatic, desert & terrestrial animals	NIL
B.Sc. II Semester -IV	Cell Biology, Genetics, Evolution and Ethology (Section-II)	1	<b>UNIT-III Evolution History of Life</b> Major events in history of life, Geological time scale  <b>Introduction to Evolutionary Theories</b> Lamarckism, Darwinism, Neo-Darwinism  <b>Evolutionary Change</b> Organic variations, Isolating mechanisms, Natural selection (Example: Industrial melanism); Types of natural selection (Directional, Stabilizing, Disruptive), Artificial selection	NIL

*Namrata*

Miss. Namrata A. Jadhav

*Gita*

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**SYLLABUS COMPLETION REPORT (Term II)**

**Teacher Name: Ms. Akshata P. Sutar**

Class	Subject	Total Units	Completed Units	Remaining Units
B.Sc. III Sem VI	Ecology and Toxicology	1	Definition, history, scope & divisions of toxicology. Brief idea of- Dose-effect and dose-response relationship- acute toxicity, sub-acute toxicity, chronic toxicity, organ specific toxicity (neurotoxicity, hepatotoxicity, nephrotoxicity)	Nil
B. Sc. II Sem IV	Cell Biology, Genetics, Evolution and Ethology	1	Structure of Biomolecules - DNA, RNA and its types Ultra-structure of cell organelle Structure of prokaryotic and eukaryotic cell, Ultra structure and function of – Plasma membrane, Nucleus, Mitochondria, Golgi apparatus, Endoplasmic reticulum, Ribosome, lysosomes.	Nil

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**PRACTICALS COMPLETION REPORT**

**Teacher Name: Ms. Akshata P. Sutar**

<b>Class</b>	<b>Practical No.</b>	<b>Batch</b>	<b>Practical Based on paper</b>	<b>Remaining Practicals</b>
B. Sc. I	Practical I & II	F23	Animal Diversity II and Genetics	NIL
B. Sc. II	Practical II	S10 & S12	Cell Biology, Genetics, Evolution and Ethology	NIL



**Ms. Akshata P. Sutar**



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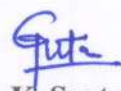
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**SYLLABUS COMPLETION REPORT**

Name of the teacher: Ms. Pratiksha R. Gaikwad

Class	Subject	Total Units	Completed Units	Remaining Units
B.Sc. I	Structural organisation in animal	UNIT-I	<b>Prokaryotic and eukaryotic cells- Organization in a Multicellular Animal :</b> a. Cellular level of organization b. Tissue Level of organization c. Organ Level of organization <b>Types of animal tissues</b> a. Epithelial tissue b. Connective Tissue c. Muscle tissue d. Neural tissue <b>Sense organ-</b> Photoreceptor, Tangoreceptors, Statoacoustic	NIL
		UNIT-II	<b>Study of various systems in human</b> a. Digestive system b. Nervous system c. Circulatory system d. Male reproductive system e. Female reproductive system f. Respiratory system g. Skeletal system h. Endocrine gland	NIL

  
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**PRACTICALS COMPLETION REPORT**

**Teacher Name:** Ms. Pratiksha R. Gaikwad

Class	Practical No.	Batch	Practical Based on paper	Remaining Practicals
B. Sc. I	Practical I & II	F21	Animal Diversity II Genetics	NIL
B. Sc. II	Practical I	S10& S14	Mammalian Physiology and Biochemistry	NIL



**Ms. Pratiksha R. Gaikwad**



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