

Cidco-Nashik

Teaching Plan (Year 2021-22)

Department: Zoology Name of the Teacher: Dr. M.S.Patil

Term-I

Class: F.Y.BSc.

Name of the Paper: Animal Diversity –I

Month	Syllabus (Topics) to be	No of	Syllabus (Topics)	No of	Method of
	completed as per	lectures	completed in the class	lecture	teaching used
	University	prescribed	room	s taken	0
	circular	•			
Sept.	1.Principles of	05	1.Principles of		Board /
1	Classification:		Classification:	05	Power Point
	Taxonomy & Systematics		Taxonomy &		presentation
	1.1 Taxonomy: Basic		Systematics		•
	terminology and Introuction		1.1 Taxonomy: Basic		
	· Alpha, Beta and Gamma		terminology and		
	levels of taxonomy, Micro-		Introuction		
	taxonomy		· Alpha, Beta and Gamma		
	· Macro taxonomy:		levels of taxonomy,		
	Phenetics (numerical		Micro-taxonomy		
	taxonomy, Cladistics		· Macro taxonomy:		
	(Phylogenetic systematics),		Phenetics (numerical		
	Evolutionary taxonomy		taxonomy, Cladistics		
	(evolutionary systematics)		(Phylogenetic		
	· Classical taxonomy and		systematics), Evolutionary		
	experimental or neo		taxonomy (evolutionary		
	taxonomy (biochemical		systematics)		
	taxonomy and		· Classical taxonomy and		
	Cytotaxonomy)		experimental or neo		
	· Significance of Taxonomy		taxonomy (biochemical		
			taxonomy and		
			Cytotaxonomy)		
			· Significance of		
			Taxonomy		
			1.2 Systematics:		
	1.2 Systematics: definition		definition introduction		
	introduction		1.3 Linnaean system of		
	1.3 Linnaean system of		classification (Six level		
	classification (Six level		classification: Phylum,		
	classification: Phylum,		class, order, family,		
	class, order, family, genus,		genus, species)		
	species)		1.4 Concept of Species:		
	1.4 Concept of Species:		Biological &		
	Biological & Evolutionary		Evolutionary		
	1.5 Introduction to		1.5 Introduction to		
	Binomial Nomenclature.		Binomial Nomenclature.		
	1.6 Introduction to Five		1.6 Introduction to Five		
	kingdom system.		kingdom system.		

Sept.	2.General Features of	02	2.General Features of	02	Board /
-	kingdom Animalia		kingdom Animalia		Power Point
	2.1 General characters of		2.1 General characters of		presentation
	Kingdom Animalia, Grades		Kingdom Animalia,		presentation
	of organization		Grades of organization		
	2.2 Symmetry.		2.2 Symmetry.		
	3.Kingdom Protista	07	3.Kingdom Protista		
	(Phylum: Protozoa)		(Phylum: Protozoa)	07	
	3.1 Introduction to Phylum		3.1 Introduction to Phylum		
	Protozoa		Protozoa		
	3.2 Salient features of		3.2 Salient features of		
	Phylum Protozoa		Phylum Protozoa		
	3.3 Classification of		3.3 Classification of		
	Phylum Protozoa up to		Phylum Protozoa up to		
	classes with two examples		classes with two examples		
	of each class (names only).		of each class (names only).		
	Class Rhizopoda (e.g		Class Rhizopoda (e.g		
	:Entamoebahistolytica,		:Entamoebahistolytica,		
	Arcella),		Arcella),		
	Class Mastigophora (e.g:		Class Mastigophora (e.g:		
	Euglena viridis,		Euglena viridis,		
	Trypanosomagambiense),		Trypanosomagambiense),		
	Class Ciliata		Class Ciliata		
Oct.	(e.gParamoeciumcaudatum,		(e.gParamoeciumcaudatu		
	Opalinaranarum),		m, Opalinaranarum),		
	Class Sporozoa		Class Sporozoa		
	(e.gPlasmodium vivax,		(e.gPlasmodium vivax,		
	Toxoplasmagondii)		Toxoplasmagondii)		
	3.4 Locomotion in		3.4 Locomotion in		
	Protozoa: Amoeboid,		Protozoa: Amoeboid,		
	Ciliary and Flagellar with		Ciliary and Flagellar with		
	suitable examples		suitable examples		
	3.5 Type Study:		3.5 Type Study:		
	Paramecium caudatum:		Paramecium caudatum:		
	Classification, Habit and		Classification, Habit and		
	Habitat, External		Habitat, External		
	morphology, Feeding and		morphology, Feeding and		
	digestion, Excretion,		digestion, Excretion,		
	Reproduction (binary		Reproduction (binary		
	fission and Conjugation)		fission and Conjugation)		
	3.6. Economic importance		3.6. Economic importance		
	of Protozoa (three harmful		of Protozoa (three harmful		
	and one useful protozoan) 3.6.1- Harmful Protozoa :		and one useful protozoan) 3.6.1-Harmful Protozoa:		
	Plasmodium vivax (malarial		Plasmodium vivax		
			(malarial parasite),		
	parasite), Entamoebahistolytica		Entamoebahistolytica		
	(Amoebic dysentery),		(Amoebic dysentery),		
	Trypanosomagambiense		Trypanosomagambiense		
	(Gambian sleeping		(Gambian sleeping		
	sickness).		sickness).		
	3.6.2- Useful Protozoa:		3.6.2- Useful Protozoa:		
	Trichonympha		Trichonympha		

	4.		4.		
	Origin of Metazoa	01	Origin of Metazoa	01	
Oct.	4.1 Introduction Origin and		4.1 Introduction Origin	Ŭ.	Deerd /
0	importance of Metazoa		and importance of		Board /
	5.		Metazoa		Power Point
	Phylum Porifera		5.		presentation
	•	06		06	
	5.1. Introduction to Phylum Porifera	00	Phylum Porifera 5.1. Introduction to		
	5.2 Classification of		Phylum Porifera		
	Phylum Porifera up to		5.2 Classification of		
	classes with two examples		Phylum Porifera up to		
	of each class (names only,		classes with two examples		
	no description of		of each class (names only,		
	specimens).		no description of		
	Class Calcarea (e.g.:		specimens).		
	Leucosolenia, Sycon		Class Calcarea (e.g.:		
	(Scypha)		Leucosolenia, Sycon		
	Class Hexactinellida (e.g:		(Scypha)		
	Euplectella (venus flower		Class Hexactinellida (e.g:		
	basket), Hyalonema (glass		Euplectella (venus flower		
	sponge))		basket), Hyalonema (glass		
	Class Demospongiae (e.g:		sponge))		
	Chalina (Mermaid's gloves,		Class Demospongiae (e.g:		
	Spongilla (fresh water		<i>Chalina</i> (Mermaid's		
	sponge))		gloves, Spongilla (fresh		
	5.3 Canal system in		water sponge))		
	sponges: Ascon, Leucon		5.3 Canal system in		
	and Rhagon type.		sponges: Ascon, Leucon		
	5.4 Skeleton in sponges:		and Rhagon type.		
	Spicules, its types:		5.4 Skeleton in sponges:		
Nov.	Microscleres&Megascleres,		Spicules, its types:		
	Monoaxon – monactinal,		Microscleres&Megasclere		
			Ũ		
	diactinal, Amphidiscs,		s, Monoaxon – monactinal,		
	Triaxon, Polyaxon,		diactinal, Amphidiscs,		
	Spongin fibres. 5.5 Regeneration in		· •		
	e		Triaxon, Polyaxon,		
	sponges.		Spongin fibres.		
	5.6 Economic importance		5.5 Regeneration in		
	of Phylum Porifera.		sponges.		
	6.		5.6 Economic importance		
	Phylum: Cnidaria	05	of Phylum Porifera.		
	6.1 Introduction to Phylum	05	6. Dhalanna Caridania		
	Cnidaria		Phylum: Cnidaria		
	6.2 Salient features of		6.1 Introduction to Phylum	05	Board /
	Phylum Cnidaria		Cnidaria		Power Point
	6.3 Classification of		6.2 Salient features of		presentation
	Phylum Cnidaria up to class		Phylum Cnidaria		1
	level with given examples		6.3 Classification of		
	each class (names of		Phylum Cnidaria up to		
	examples only)		class level with given		
	Class Hydrozoa e.g.: Hydra,		examples each class		
	Physalia (Portuguese man	01	(names of examples only)	01	
	of war)		Class Hydrozoa e.g.:		
	Class Scyphozoae.g:		Hydra, Physalia		
	Aurelia (Jelly fish),		(Portuguese man of war)		
	I	I	ı l		I

	Leucernaria (trumpet		Class Scyphozoae.g:		Board /
	shaped Jellyfish)	06	Aurelia (Jelly fish),	06	Power Point
	Class Anthozoa: e.g;		Leucernaria (trumpet		presentation
	Metridium (Common sea		shaped Jellyfish)		presentation
Nov.	anemone0		Class Anthozoa: e.g;		
	6.4 Polymorphism in		Metridium (Common sea		
	Hydrozoa: Polyps &		anemone0		
	Medusa (polyp types:		6.4 Polymorphism in		
	gastrozooids, dactylozooids,		Hydrozoa: Polyps &		
	gonozooids) and functions		Medusa (polyp types:		
	6.5 Economic importance		gastrozooids,		
	of Cnidarians with		dactylozooids,		
	reference to Corals and		gonozooids) and functions		
	Coral reefs.		6.5 Economic importance		
	7.		of Cnidarians with		
	Phylum Platyhelminthes		reference to Corals and		
	7.1 Introduction to Phylum		Coral reefs.		
	Platyhelminthes	04	7.		
	7.2 Salient features of		Phylum Platyhelminthes	04	
	Phylum Platyhelminthes		7.1 Introduction to Phylum		
	7.3 Classification of		Platyhelminthes		Board /
	Phylum Platyhelminthes up		7.2 Salient features of		Power Point
	to classes with two		Phylum Platyhelminthes		
	examples each class (names		7.3 Classification of		presentation
	of examples only).		Phylum Platyhelminthes		
	Class: Turbellaria (e.g:		up to classes with two		
	Dugesia, Bipallium)		examples each class		
	Class: Trematoda (e.g.		(names of examples only).		
	Fasciola hepatica,		Class: Turbellaria (e.g:		
	schistosomahaematobium)		Dugesia, Bipallium)		
	Class Cestoda:		Class: Trematoda (e.g.		
	(Taeniasolium (pork tape		Fasciola hepatica,		
	worm), Echinococcusgranul		schistosomahaematobium)		
	osus (dog tapeworm)		Class Cestoda:		
	7.4 Parasitic adaptations in		(Taeniasolium (pork tape		
	Platyhelminthes: structural		worm), Echinococcusgranu		
	and physiological.		<i>losus</i> (dog tapeworm)		
	7.5 Economic importance		7.4 Parasitic adaptations in		
	of Platyhelminthes		Platyhelminthes: structural		
			and physiological.		
			7.5 Economic importance		
			of Platyhelminthes		



Cidco-Nashik

Teaching Plan (Year 2021-22)

Department: Zoology

Name of the Teacher: Mr. R. B. Patil

Term-I

Class: F.Y.BSc.

Name of the Paper: Animal Ecology

Month	Syllabus (Topics) to be completed as per University	No of lectures prescribed	Syllabus (Topics) completed in the class room	No of lecture s taken	Method of teaching used
	circular				
Sept.	1. Introduction to Ecology	02	1. Introduction to Ecology	02	Specimens
	1.1 Concepts of Ecology,		1.1 Concepts of Ecology,	02	
	Environment, Population,		Environment, Population,		
	Community, Ecosystem,		Community, Ecosystem,		
	Biosphere, Autecology and		Biosphere, Autecology and		
	synecology		synecology		
	2.		2.		
	Ecosystem		Ecosystem		
	2.1 Types of ecosystems:		2.1 Types of ecosystems:		
	Aquatic (Freshwater,	08	Aquatic (Freshwater,	08	
	estuarine, Marine and terrestrial (Forest, Grassland		estuarine, Marine and terrestrial (Forest,		
	and Desert)		Grassland and Desert)		
	2.2 Structure and		2.2 Structure and		
	Composition of Ecosystem		Composition of Ecosystem		
	(Abiotic components and		(Abiotic components and		
	biotic components.		biotic components.		
	2.3 Food chain: Detritus and		2.3 Food chain: Detritus		
	grazing food chains, Food web, Energy flow through		and grazing food chains, Food web, Energy flow		
	the ecosystem, Ecological		through the ecosystem,		
	pyramids: Number, Biomass,		Ecological pyramids:		
	and Energy.		Number, Biomass, and		
	2.4 concept of		Energy.		
	Eutrophication in lakes and		2.4 concept of		
Sept.	rivers.		Eutrophication in lakes and		
•	3.		rivers.		
	Population	0.0	3.	00	
	3.1Characteristic of	08	Population	08	
	population: Density,		3.1Characteristic of		
	Natality, Mortality,		population: Density,		
	Fecundity tables, survivorship curves, age		Natality, Mortality, Fecundity tables,		
	ratio, sex ratio, dispersal and		survivorship curves, age		
	dispersion.		ratio, sex ratio, dispersal		
	3.2Exponential and logistic		and dispersion.		
	growth,		3.2Exponential and logistic		
	3.3 Population regulation –		growth,		
	density-dependent and		3.3 Population regulation –		
	independent factors.		density-dependent and		

Oct.	 Population interactions, Gause's Principle with laboratory and field interactions, 3.4 Quadrate, line and belt transect methods. 4. Community 4.1Community characteristics: species 	07	 independent factors. Population interactions, Gause's Principle with laboratory and field interactions, 3.4 Quadrate, line and belt transect methods. 4. Community 4.1Community 	07
Oct.	richness, dominance, diversity, abundance, vertical stratification, Eco tone and edge effect; Ecological succession with one example. 5. Animal interactions 5.1Introduction to Animal interactions 5.2 Types of Animal	05	characteristics: species richness, dominance, diversity, abundance, vertical stratification, Eco tone and edge effect; Ecological succession with one example. 5. Animal interactions 5.1Introduction to Animal interactions	05
Nov.	interactions with at least to suitable examples of each 5.2.1-Competition: Interspecific and intraspecific 5.2.2- Beneficial Associations: Commensalism (remora fish on shark, Cattle egrets on livestock), Mutualism (Termite and Trichonympha, bees and flowers, cleaning symbiosis in fish by prawns. 5.3 Antagonistic associations: Parasitism (Ascaris and man, lice and		 5.2 Types of Animal interactions with at least to suitable examples of each 5.2.1-Competition: Interspecific and intraspecific 5.2.2- Beneficial Associations: Commensalism (remora fish on shark, Cattle egrets on livestock), Mutualism (Termite and Trichonympha, bees and flowers, cleaning symbiosis in fish by prawns. 5.3 Antagonistic associations: Parasitism 	
	(Ascaris and main, lice and humans), Prey predation (Lion and deer).		(Ascaris and man, lice and humans), Prey predation (Lion and deer).	



Cidco-Nashik

Teaching Plan (Year 2021-22)

Department: Zoology

Name of the Teacher: Dr. M.S.Patil

Term-I

Name of the Paper: Zoology Practical Paper Class: F.Y.BSc.

Month	Syllabus (Topics) to be	No of	Syllabus (Topics)	No of	Method of
	completed as per	lectures	completed in the class	lecture	teaching used
	University	prescribed	room	s taken	useu
	•	presentited	TOOM	5 taken	
	circular				
Oct.	Animal Diversity –I		Animal Diversity –I		
	1. Museum Study of phylum		1. Museum Study of		
	Protozoa: Euglena,		phylum Protozoa: Euglena,		
	Paramecium, Amoeba,		Paramecium, Amoeba,		
	Plasmodium sp.		Plasmodium sp.		
	2. Museum study of Phylum		2. Museum study of		
	Porifera: Sycon,		Phylum Porifera: Sycon,		
	Euplectella, Chalina,		Euplectella, Chalina,		
	Spongilla.		Spongilla.		
	3. Museum study of phylum		3. Museum study of phylum		
	Cnidaria: <i>Hydra, Physalia,</i>		Cnidaria: <i>Hydra</i> , <i>Physalia</i> ,		
	Aurelia, Metridium.		Aurelia, Metridium.		
	4 Museum Study of phylum		4 Museum Study of phylum		
	Platyhelminthes: <i>Planeria</i> ,		Platyhelminthes: <i>Planeria</i> ,		
	Faciola hepatica, Taeniasolium		Faciola hepatica, Taeniasolium		
	5. Study of Paramecium:		5. Study of Paramecium:		
Oct.	Culture, External		Culture, External		
	morphology, Conjugation and Binary fission.		morphology, Conjugation and Binary fission.		
	6. Study of permanent slides:		6. Study of permanent		
	Spicules and Gemmules in		slides: Spicules and		
	Sponges, T.S. of <i>Sycon</i> , T.S.		Gemmules in Sponges, T.S.		
	of		of Sycon, T.S. of		
	Hydra, Taeniasolium:		Hydra, Taeniasolium:		
	Scolex, Gravid proglottid.		Scolex, Gravid proglottid.		
	7. Identification of any three		7. Identification of any		
	museum specimen with help		three museum specimen		
	of taxonomic identification		with help of taxonomic		
	key.		identification key.		
	8. Visit to Zoological survey		8. Visit to Zoological survey		
	of India/ Museum/National		of India/ Museum/National		
	Park.		Park.		
	Animal Ecology:		Animal Ecology:		
	1. Estimation of Dissolved		1. Estimation of Dissolved		
Nov.	oxygen from given water		oxygen from given water		
	sample.		sample.		
	2. Estimation of Water		2. Estimation of Water		
	Alkalinity from given water		Alkalinity from given water		
	sample.		sample.		
	3. Study of animal		3. Study of animal		

h.		· · · · · · · · · · · · · · · · · · ·	
community structure by		community structure by	
quadrate method (Field or		quadrate method (Field or	
Simulation).		Simulation).	
4. Determination of density,		4. Determination of density,	
frequency and abundance of		frequency and abundance of	
species by quadrat method.		species by quadrat method.	
5. Study of microscopic		5. Study of microscopic	
fauna of freshwater		fauna of freshwater	
ecosystem (from pond).		ecosystem (from pond).	
6. Estimation of water		6. Estimation of water	
holding capacity of given		holding capacity of given	
soil sample.		soil sample.	
7. Estimation of dissolved		7. Estimation of dissolved	
and free carbon dioxide from		and free carbon dioxide	
water sample.		from water sample.	
8. Study of Eutrophication in		8. Study of Eutrophication	
lake/river.		in lake/river.	
lake/livel.		III lake/livel.	



Cidco-Nashik

Teaching Plan (Year 2021-22)

Department: Zoology

Term-II

Class: F.Y.BSc.

Name of the Teacher: Dr. M.S.Patil Name of the Paper: Animal Diversity-II

Month	Syllabus (Topics) to be completed as per University	No of lectures prescribed	Syllabus (Topics) completed in the class room	No of lecture s taken	Method of teaching used
T	circular		4		
Jan.	 Phylum Aschelminthes Introduction to phylum Aschelminthes Salient features of Phylum Aschelminthes	04	 Phylum Aschelminthes Introduction to phylum Aschelminthes Salient features of Phylum Aschelminthes Classification of Phylum Aschelminthes	04	
	Phylum Annelida 2.1 Introduction to Phylum Annelida 2.2 Salient features of Phylum Annelida. 2.3 Classification of Phylum Annelida up to classes with examples of following classes (names of examples only). Class Polychaeta (e.g: <i>Nereispelagica (neries/</i> sand worm, <i>Aphroditaaculeata</i> (=Aphrodite/ seamouse) Class Oligochaeta (e.g.: <i>Pheritimaposthuma</i> (earthworm), Class Hirudinea (e.g: <i>Hirudinaria granulosa</i> common cattle leech) 2.4 Economic importance of Annelida with reference to earthworms as friends of farmers and in their role in vermicomposting.	06	Phylum Annelida 2.1 Introduction to Phylum Annelida 2.2 Salient features of Phylum Annelida. 2.3 Classification of Phylum Annelida up to classes with examples of following classes (names of examples only). Class Polychaeta (e.g: <i>Nereispelagica (neries/</i> sand worm, <i>Aphroditaaculeata</i> (=Aphrodite/ seamouse) Class Oligochaeta (e.g.: <i>Pheritimaposthuma</i> (earthworm), Class Hirudinea (e.g: <i>Hirudinaria granulosa</i> common cattle leech) 2.4 Economic importance of Annelida with reference to earthworms as friends of farmers and in their role in vermicomposting.	06	

Feb.	3.		3.		
100.	Phylum Arthropoda	06	Phylum Arthropoda	06	
	3.1 Introduction to Phylum	00	3.1 Introduction to Phylum	00	
	Arthropoda		Arthropoda		
	3.2 Salient features of		3.2 Salient features of		
	Phylum Arthropoda		Phylum Arthropoda		
	3.3 Classification of Phylum		3.3 Classification of		
	Arthropoda with specific		Phylum Arthropoda with		
	classes and mentioned		specific classes and		
	examples (names only)		mentioned examples		
	Class:Crustacea:Palaemonpa		(names only)		
	laemon (Prawn) Brachyura		Class:Crustacea:Palaemonp		
	spp. crabs)		alaemon (Prawn)		
	Class: Chilopoda:		Brachyura spp. crabs)		
	Scolopendra sp. (centipede)		Class: Chilopoda:		
	Class: Diplopoda: Julus sp.		Scolopendra sp. (centipede)		
			Class: Diplopoda: Julus sp.		
	(millipede)				
	Class Insecta:		(millipede)		
	Periplanetaamericana		Class Insecta:		
	(American Cockroach),		Periplanetaamericana		
	Anopheles stephensii		(American Cockroach),		
	(mosquito).		Anopheles stephensii		
	Class: Arachnida- Spiders,		(mosquito).		
	Buthussp (scorpion)		Class: Arachnida- Spiders,		
	3.4 mouth parts in insects:		Buthussp (scorpion)		
	Mandibulate (cockroach),		3.4 mouth parts in insects:		
	Piercing and sucking (female		Mandibulate (cockroach),		
	Anopheles mosquito),		Piercing and sucking		
	chewing and lapping type		(female Anopheles		
	(honey bee)		mosquito), chewing and		
	3.5 Economic importance of		lapping type (honey bee)		
	Arthropoda		3.5 Economic importance		
	Useful Insects: Honey bee,		of Arthropoda		
	Lac insect, Silkworm.		Useful Insects: Honey bee,		
	Harmful insects: Female		Lac insect, Silkworm.		
	Anopheles mosquito, Red		Harmful insects: Female		
	cotton bug, Rice weevil		Anopheles mosquito, Red cotton bug, Rice weevil		
	4.				
	Phylum Mollusca	0.5	4.	0.4	
	4.1 Introduction to Phylum	06	Phylum Mollusca	06	
	Mollusca		4.1 Introduction to Phylum		
	4.2 Salient features of		Mollusca		
	Phylum Mollusca		4.2 Salient features of		
	4.3 Classification of Phylum		Phylum Mollusca		
	Mollusca with specific		4.3 Classification of		
	classes and mentioned		Phylum Mollusca with		
	examples (names only)		specific classes and		
	Class Gastropodae.gPila		mentioned examples		
	globosa (apple snail)		(names only)		
	Class Peleourodae <i>a Lamelli densm</i>		Class Gastropodae.gPila		
	Pelecypodae.gLamellidensm		<i>globosa</i> (apple snail) Class		
	<i>arginalis</i> (Bivalve) Class				
			Pelecypodae.gLamellidens		
	Polyplacophorae.g <i>Chiton</i> Class: Cephalopodae.g:		<i>marginalis</i> (Bivalve) Class		
	Octopus vulgaris (common		Polyplacophorae.gChiton		
March			i oryptacopilorae.gemion		

	1		1		
	octopus), Sepia		Class: Cephalopodae.g:		
	officinalis (common Cuttle		Octopus vulgaris (common		
	fish)		octopus), Sepia		
	4.4 Economic importance of		officinalis (common Cuttle		
	Mollusca.		fish) 4.4 Economic importance		
	5.		of Mollusca.		
	Study of Phylum				
	Echinodermata	08	5.	08	
	5.1 Introduction to Phylum	00	Study of Phylum	00	
	Echinodermata		Echinodermata		
	5.2 Salient features of		5.1 Introduction to Phylum		
	Phylum Echinodermata.		Echinodermata		
	5.3 Classification of Phylum		5.2 Salient features of		
	Echinodermata with specific		Phylum Echinodermata.		
March	classes and mentioned		5.3 Classification of		
ivial CII	examples (names only) □ Class Asteroidea		Phylum Echinodermata		
			with specific classes and		
	(<i>Asteriasrubens</i> sea stars or starfish)		mentioned examples (names only)		
	□ Class: Holothuroidea.		□ Class Asteroidea		
	Holothuria sp. sea		(Asteriasrubens sea stars or		
	cucumbers)		starfish)		
	□ Class: Echinoidea(<i>Echinus</i>		□ Class: Holothuroidea.		
	<i>esculentis</i>		Holothuria sp. sea		
	urchins)		cucumbers)		
	Class: Crinoidea (sea lilies or		\Box Class:		
	feather stars)		Echinoidea(<i>Echinus</i>		
	5.4 Type study:		<i>esculentis</i> common sea		
	Asteriasrubens (Sea Star):		urchins)		
	Classification, Habit Habitat,		Class: Crinoidea (sea lilies		
	External Morphology,		or feather stars)		
	Digestive system, Water		5.4 Type study:		
	vascular System and		Asteriasrubens (Sea Star):		
	autotomy and regeneration		Classification, Habit		
	5.5Pedicillaria in		Habitat, External		
	Echinodermata: straight,		Morphology, Digestive		
	crossed, valvate, tridactylous,		system, Water vascular		
	globigerous.		System and autotomy and		
	5.6 Economic importance of		regeneration		
	Echinidermat		5.5Pedicillaria in		
			Echinodermata: straight,		
			crossed, valvate,		
			tridactylous, globigerous.		
			5.6 Economic importance		
			of Echinidermat		



Cidco-Nashik

Teaching Plan (Year 2021-22)

Name of the Teacher: Mr. R. B. Patil

Term-II

Department: Zoology Class: F.Y.BSc. Nam

Name of the Paper: Cell Biology

Syllabus (Topics) to be completed as per University circular	No of lectures prescribed	Syllabus (Topics) completed in the class room	No of lecture s taken	Method of teaching used
		1		
 Introduction: 1.1 Introduction cell biology, 1.2 Cell as basic unit of life. 1.3 Importance of Cell Biology and its applications in industry. Overview of Cells 1.3 Introduction to Prokaryotic and Eukaryotic cells. 1.4 Structure and function of Prokaryotic (<i>E. coli</i>) 1.5 Structure and function of Eukaryotic cells (Animal and 	04	Introduction: 1.1 Introduction cell biology, 1.2 Cell as basic unit of life. 1.3 Importance of Cell Biology and its applications in industry. Overview of Cells 1.3 Introduction to Prokaryotic and Eukaryotic cells. 1.4 Structure and function of Prokaryotic (<i>E. coli</i>) 1.5 Structure and function	04	
Plant Cell)		of Eukaryotic cells (Animal		
Techniques in Cell Biology: 3.1 Introduction 3.2 Microscopy: Basic Principle, Simple, Compound and applications of Electron Microscope. 3.3 Stains and dyes: Types of Stain: Acidic, basic and neutral. Dye (Preparation and chemistry of dyes not expected) 3.4 Micrometry. 3. Plasma Membrane: 4.1 Introduction 4.2 Structure of plasma membrane: Fluid mosaic model. 4.3Transport across membranes: Active and Passive transport, Facilitated transport, exocytosis, endocytosis, phagocytosis –	04	 2. Techniques in Cell Biology: 3.1 Introduction 3.2 Microscopy: Basic Principle, Simple, Compound and applications of Electron Microscope. 3.3 Stains and dyes: Types of Stain: Acidic, basic and neutral. Dye (Preparation and chemistry of dyes not expected) 3.4 Micrometry. Plasma Membrane: 4.1 Introduction 4.2 Structure of plasma membrane: Fluid mosaic model. 4.3Transport across membranes: Active and Passive transport, 	04	
	completed as per University circular 1. Introduction: 1.1 Introduction cell biology, 1.2 Cell as basic unit of life. 1.3 Importance of Cell Biology and its applications in industry. Overview of Cells 1.3 Introduction to Prokaryotic and Eukaryotic cells. 1.4 Structure and function of Prokaryotic (<i>E. coli</i>) 1.5 Structure and function of Eukaryotic cells (Animal and Plant Cell) 2. Techniques in Cell Biology: 3.1 Introduction 3.2 Microscopy: Basic Principle, Simple, Compound and applications of Electron Microscope. 3.3 Stains and dyes: Types of Stain: Acidic, basic and neutral. Dye (Preparation and chemistry of dyes not expected) 3.4 Micrometry. 3. Plasma Membrane: 4.1Introduction 4.2 Structure of plasma membrane: Fluid mosaic model. 4.3Transport across membranes: Active and Passive transport, Facilitated transport, exocytosis,	completed as per Universitylectures prescribed1.introduction:041.1Introduction cell biology, 1.2 Cell as basic unit of life. 1.3 Importance of Cell Biology and its applications in industry.041.3Importance of Cells 1.3 Introduction to Prokaryotic and Eukaryotic cells.41.4Structure and function of Prokaryotic (<i>E. coli</i>) 1.5 Structure and function of Eukaryotic cells (Animal and Plant Cell) 2.043.1Introduction 3.2 Microscopy: Basic Principle, Simple, Compound and applications of Electron Microscope. 3.3 Stains and dyes: Types of Stain: Acidic, basic and neutral. Dye (Preparation and chemistry of dyes not expected)043.4Micrometry. 3.06Plasma Membrane: 4.1 1.1064.3Transport across membranes: Active and Passive transport, Facilitated transport, exocytosis, endocytosis, phagocytosis – vesicles and their importance06	completed as per Universitylectures prescribedcompleted in the class room1.circular1.1.Introduction:041.1Introduction cell biology, 1.2 Cell as basic unit of life.1.11.3Importance of Cell1.1Biology and its applications in industry.04Introduction cell biology, 1.2 Cell as basic unit of life.1.3Importance of CellBiology and its applications in industry.1.3Introduction to0Overview of Cells1.31.4Structure and function of Frokaryotic cells.1.41.5Structure and function of Eukaryotic cells (Animal and Plant Cell)1.52.Techniques in Cell Biology: 3.2043.2Microscopy: Basic Principle, Simple, Compound and applications of Electron Microscope.043.3Stains and dyes: Types of Stain: Acidic, basic and neutral.3.4Dye (Preparation and chemistry of dyes not expected)0.6Plasma Membrane: 4.14.1Huroduction 4.23.44.2Structure of plasma membrane: Fluid mosaic model.0.6Plasma Membrane: 4.30.6Plasma Membrane: 4.14.3Transport across membrane: Scive and Passive transport, Facilitated transport, exocytosis – vesicles and their importance0.6Plasine difference assive transport, Facilitated transport across9.6Plassive transport, Stains protace assive transport, exocytosis – vesicles and their importance <t< td=""><td>completed as per University circularlectures prescribedcompleted in the class roomlecture s taken1.Introduction1.1.Introduction cell biology, 1.2 Cell as basic unit of life. 1.3 Introduction to Prokaryotic and Eukaryotic cells.0.4Introduction: I.1 Introduction to Prokaryotic and Eukaryotic cells.0.4Introduction: I.3 Introduction to Prokaryotic and Eukaryotic cells.0.40.41.5 Structure and function of Prokaryotic cells (Animal and Plant Cell)0.41.50.42.1.5 Structure and function of Eukaryotic cells (Animal and Plant Cell)0.41.50.42.1.5 Structure and function of Eukaryotic cells (Animal and Plant Cell)0.40.42.1.1 Introduction 3.2 Microscopy: Basic Principle, Simple, Compound and applications of Electron Microscope. 3.3 Stains and dyse: Types of Stain: Acidic, basic and neutral.0.4Dye (Preparation and chemistry of dyes not expected)0.41.43.4 Micrometry. 331.13.4 Micrometry. 3334.1 Introduction 4.2 Structure of plasma membrane: Fluid mosaic model.0.64.3 Transport across membrane: Active and Passive transport, Facilitated transport across membrane: Active and Passive transport, Sectios, nodel.0.6</td></t<>	completed as per University circularlectures prescribedcompleted in the class roomlecture s taken1.Introduction1.1.Introduction cell biology, 1.2 Cell as basic unit of life. 1.3 Introduction to Prokaryotic and Eukaryotic cells.0.4Introduction: I.1 Introduction to Prokaryotic and Eukaryotic cells.0.4Introduction: I.3 Introduction to Prokaryotic and Eukaryotic cells.0.40.41.5 Structure and function of Prokaryotic cells (Animal and Plant Cell)0.41.50.42.1.5 Structure and function of Eukaryotic cells (Animal and Plant Cell)0.41.50.42.1.5 Structure and function of Eukaryotic cells (Animal and Plant Cell)0.40.42.1.1 Introduction 3.2 Microscopy: Basic Principle, Simple, Compound and applications of Electron Microscope. 3.3 Stains and dyse: Types of Stain: Acidic, basic and neutral.0.4Dye (Preparation and chemistry of dyes not expected)0.41.43.4 Micrometry. 331.13.4 Micrometry. 3334.1 Introduction 4.2 Structure of plasma membrane: Fluid mosaic model.0.64.3 Transport across membrane: Active and Passive transport, Facilitated transport across membrane: Active and Passive transport, Sectios, nodel.0.6

	4.4 Other functions of Cell		phagocytosis - vesicles and		
	membrane in brief		their importance in		
March	Protection, cell recognition,		transport.		
-	shape, storage, cell		4.4 Other functions of Cell		
	signalling.		membrane in brief		
	4.5 Cell Junctions: Tight		Protection, cell recognition,		
	junctions, gap junctions,		shape, storage, cell		
	Desmosomes.		signalling.		
	4.		4.5 Cell Junctions: Tight		
	Nucleus: Structure and		junctions, gap junctions,		
	function	04	Desmosomes.	04	
	5.1Introduction to Nucleus		4.		
	5.2 Structure of Nucleus:		Nucleus: Structure and		
	Nuclear envelope, Nuclear		function		
	pore complex, Nucleoplasm,		5.1Introduction to Nucleus		
	Nucleolus		5.2 Structure of Nucleus:		
	5.3 Chromatin: Eu-chromatin		Nuclear envelope, Nuclear		
	and Hetro-chromatin, nature		pore complex,		
	and differences.		Nucleoplasm, Nucleolus		
	5.4 Functions of nucleus		5.3 Chromatin: Eu-		
	5.		chromatin and Hetro-		
	Endomembrane System		chromatin, nature and differences.		
	6.1 Introduction	04	5.4 Functions of nucleus	04	
	6.2 Structure, location and	04		04	
	Functions: Endoplasmic		5.		
	Reticulum, Golgi		Endomembrane System		
	apparatus, Lysosomes and		6.1 Introduction		
	vacuoles.		6.2 Structure, location and		
	6.		Functions: Endoplasmic		
	Mitochondria and	03	Reticulum, Golgi apparatus, Lysosomes and		
	Peroxisomes				
	7.		vacuoles.		
	7.1 Introduction		6.	03	
	7.2 Mitochondria:		Mitochondria and	05	
N # 1	ultrastructure and function of		Peroxisomes		
March	mitochondrion.		7.		
	7.3 Peroxisomes		7.1 Introduction		
	8.		7.2 Mitochondria:		
	Cell Division		ultrastructure and function		
	7.1 Introduction	05	of mitochondrion.		
	7.2 Cell cycle (G1, S, G2, M		7.3 Peroxisomes		
	phases),		8.		
	7.3 Mitosis.		Cell Division	05	
	7.4 Meiosis.		7.1 Introduction	05	
			7.2 Cell cycle (G1, S, G2,		
			M phases),		
			7.3 Mitosis.		
			7.4 Meiosis.		



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Teaching Plan (Year 2021-22)

Department: Zoology

Class: F.Y.BSc.

Term-II

logy Name of the Teacher: Dr. M.S.Patil Name of the Paper: Zoology Practical Paper

Month	Syllabus (Topics) to be completed as per	No of lectures	Syllabus (Topics) completed in the class	No of lecture	Method of teaching used
	University	prescribed	room	s taken	
	circular				
Jan.	Animal Diversity –II 1. Museum study of Phylum Aschelminthes: <i>Ascarislumbricoides</i> ,		Animal Diversity –II 1. Museum study of Phylum Aschelminthes: <i>Ascarislumbricoides</i> ,		
	2. Museum study of phylum Annelida: <i>Neries</i> , Earthworm, Leech.		2. Museum study of phylum Annelida: <i>Neries</i> , Earthworm, Leech.		
	3. Museum study of phylum Arthropoda: Prawn, Cockroach, Centipede, Millipede, Crab		3. Museum study of phylum Arthropoda: Prawn, Cockroach, Centipede, Millipede, Crab		
	4. Museum study of phylum Mollusca: <i>Pila</i> , <i>Chiton</i> , Bivalve, Octopus.		4. Museum study of phylum Mollusca: <i>Pila</i> , <i>Chiton</i> , Bivalve, Octopus.		
	5. Museum study of phylum Echinodermata: Sea Star, Sea urchin, Brittle Star, sea cucumber.		5. Museum study of phylum Echinodermata: Sea Star, Sea urchin, Brittle Star, sea cucumber.		
	6. Study of permanent slides: Mouthparts of Insects - Mandibulate, Piercing and sucking, Chewing and Lapping.		6. Study of permanent slides: Mouthparts of Insects -Mandibulate, Piercing and sucking, Chewing and Lapping.		
	7. Types of Shells in Mollusca. <i>Pila</i> , Bivalve, Chiton, Sepia.		7. Types of Shells in Mollusca. <i>Pila</i> , Bivalve, Chiton, Sepia.		
Feb.	8. Economic importance of honey bees, Lac insects silk worms, red cotton bug, Anopheles mosquito		8. Economic importance of honey bees, Lac insects silk worms, red cotton bug, Anopheles mosquito		
	9. Earthworm: vermicomposting bin preparation and maintenance.10. Visit to a		9. Earthworm: vermicomposting bin preparation and maintenance.		
	vermicomposting unit/ field for insect pest collection and its identification Cell Biology 1. Study of Microscope:		10. Visit to a vermicomposting unit/ field for insect pest collection and its identification Cell Biology		

	Simple and Compound	1. Study of Microscope:				
	2. Micrometry: Measurement	Simple and Compound				
	•	A				
March	of microscopic objects	2. Micrometry:				
	3. Study of cell: Preparation	Measurement of				
	of temporary mount of	microscopic objects				
	human buccal epithelial	3. Study of cell: Preparation				
	cells.	of temporary mount of				
	4. Preparation of blood	human buccal epithelial				
	smears to observe the blood	cells.				
	cells	4. Preparation of blood				
	5. Temporary preparation of	smears to observe the blood				
	mitotic cell from onion roots	cells				
	6. Study of Cell organelles	5. Temporary preparation of				
	(any three) by using	mitotic cell from onion				
	microphotographs	roots				
	merophotographs	6. Study of Cell organelles				
		(any three) by using				
		microphotographs				

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Principal K.S.K.W.Arts;Sci. & Comm College CIDCO,Nashik

Syllabus Completion Report- (Year 2021-22)

Term -I

Name of the Teacher: Dr. M. S. Patil

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
F.Y.B.Sc	ZO-111 : Animal Diversity –I	 Principles of classification. General Features of kingdom Animalia. Kingdom Protista (Phylum: Protozoa) Origin of Metazoa Phylum Porifera Phylum: Cnidaria Phylum Platyhelminthes 	30	100 %	Nil	-	-
S.Y.B.Sc	Animal Diversity III	 Introduction to Phylum Chordata Introduction to Group – Protochordata.(03) Introduction to subphylum – Vertebrata Introduction to Class – Pisces Introduction to Class – Amphibia Study of Scoliodon 	48	100 %	Nil	-	

T.Y.B.Sc	Histology:	 Introduction Definitions and Review of Types of Tissues Histological study of following mammalian organs Histological study of Alimentary canal and Liver: Histological study of Respiratory organs Histological study of Excretory organs Histological study of Reproductive organs: Histology of Endocrine glands: 	48	100 %	Nil	-	
T.Y.B.Sc	Biological Chemistry:	1.IntroductionofBiochemistry2. p ^H and Buffers:3. Carbohydrates:4.Amino acids and Proteins:5. Enzymes:6. Lipids:	48	100 %	Nil	-	

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Syllabus Completion Report- (Year 2021-22)

Term -I

Name of the Teacher: Mr. R. B. Patil

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
F.Y.B.Sc	ZO-112 : Animal Ecology	 Introduction to Ecology Ecosystem Population Community Animal interactions 	30	100 %	Nil	-	-
S.Y.B.Sc	APPLIED ZOOLOGY – I	 Sericulture Agricultural Pests and their control. 	48	100 %	Nil	-	
T.Y.B.Sc	Pest Management	 Pest: Pest management using Regulatory control: Pest management using Cultural control: Pest management using Biological control: Biotechnology approaches in pest management: Integrated pest management (IPM): Insecticides: Insecticide residue: 	48	100 %	Nil	-	

T.Y.B.Sc	Developmental Biology	 Fundamentals of Developmental Biology: Theories of Developmental Biology: Gametogenesis: Fertilization: Cleavage and Blastula: Gastrulation: Chick Embryology: 	48	100 %	Nil	
T.Y.B.Sc	Poultry Management	 Introduction to Poultry Farming: Breeding Management: Housing Management: Feeding Management: Health Management: Poultry Products: 	48	100 %	Nil	



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Syllabus Completion Report- (Year 2021-22)

Term -I

Name of the Teacher: Ms. P. B. Khapre

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
T.Y.B.Sc	Genetics	1. Introduction to genetics:					
		2 Exceptions to Mendelian Inheritance:					
		3. Gene Mutation: 4. Sex-determination:					
		5. Population Genetics:					
		6. Human Population Genetics:					
		7. Sex linked inheritance in human:8. Applicatin of genetics:	48	100 %	Nil	-	
T.Y.B.Sc	Parasitology	1.Introduction: Scope and branches of Parasitology 2 Types of parasites & hosts:					
		3. Host - Parasite relationship:					
		4. Study of Parasitic Protists:					
		5. Study of Parasitic worms:					
		6. Study of Parasitic Arthropoda:					
			48	100 %	Nil	-	

T.Y.B.Sc	Cell Biology	 Introduction to Cell biology Plasma membrane Endoplasmic reticulum Golgi complex Lysosomes Mitochondria 					
		 7) Nucleus 8) Cytoskeleton 9) Cell cycle and cell division 10) Cellular ageing and cell death 11) Cancer cell 	48	100 %	Nil	-	
T.Y.B.Sc	Aquarium Management	 Introduction to Aquarium Fish Keeping: Biology of Aquarium Fishes: Food and feeding of Aquarium Fishes: Fish Transportation: Maintenance of Aquarium: Physico-chemical parameters of water for fish culture: Fish preservation: Fish breeding: 	48	100 %	Nil	-	



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Syllabus Completion Report- (Year 2021-22)

Term -II

Name of the Teacher: Dr. M. S. Patil

Department: Zoology

Class	Title of the paper	Name of the chapters taught up to 28/02/2020	Number of period used up to 28/02/2020	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
F.Y.B.Sc	ZO-121 : Animal Diversity –II	 Phylum Aschelminthes Phylum Annelida Phylum Arthropoda Phylum Mollusca Study of Phylum Echinodermata 5.4 Type study: Asteriasrubens (Sea Star): 	30	100	-	-	
S.Y.B.Sc	Animal Diversity IV	 Introduction to class –Reptilia Introduction to class –Aves Introduction to class - Mammalia. Study of Rat 	48	100	-	-	
T.Y.B.Sc	Molecular biology	 Nucleic Acids and Chromatin: Central Dogma of Molecular Biology: Lac operon: DNA repair mechanism: Recombinant DNA Technology: 	48	100 %	Nil	-	

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Syllabus Completion Report- (Year 2021-22)

Term -II

Name of the Teacher: Mr. R.B. Patil

Class	Title of the paper	Name of the chapters taught up to 28/02/2020	Number of period used up to 28/02/2020	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
F.Y.B.Sc	ZO-122 :-Cell biology	 Introduction: Overview of Cells Techniques in Cell Biology Plasma Membrane: Nucleus: Structure and function Endomembrane System Mitochondria and Peroxisomes Cell Division 	30	100	-	-	
S.Y.B.Sc	APPLIED ZOOLOGY – II	1. Apiculture 2. Fisheries	48	100 %	Nil	-	
T.Y.B.Sc	Animal Physiology	 Nutrition and digestion: Respiration: Circulation: Excretion: Muscles: Reproduction and Endocrine Glands: 	48	100 %	Nil	-	

T.Y.B.Sc	Technique in Biological	 Microscopy: Microtomy: Tissue fixation and Processing Haematological Techniques: Immunological Techniques: Types of PCR & DNA Barcoding : Methods in Biodiversity: Instruments in Field Biology: Laboratory techniques: 	48	100 %	Nil	-	
T.Y.B.Sc	General Embryology	 Introduction Concepts in Developmental Biology Gametogenesis Fertilization Cleavage Blastula Gastrulation Chick Embryology Extra embryonic membranes 	48	100 %	Nil	-	
T.Y.B.Sc	Entomology	 Fundamentals of Entomology: Insect Morphology: Insect Anatomy (Grasshopper): Insect Ecology: Insect Metamorphosis: Insects as social groups: Economic Importance of Insects: 					



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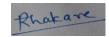
Syllabus Completion Report- (Year 2021-22)

Term -II

Name of the Teacher: Ms. P. B. Khapre

Department: Zoology

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remar k
T.Y.B.Sc	Medical & Forensic Zoology	 Introduction to medical zoology and its importance Medico-legal Autopsy: Urine Analysis: Non infectious Diseases: Infectious Diseases: Infectious Diseases: Introduction to Forensic Zoology: Forensic Medicine: Forensic Analysis: 	48	100 %	Nil	-	
T.Y.B.Sc	Evolutionary Biology	 Introduction: Evidences of Evolution: Historical Review of Evolutionary Concept: Sources of Variations: Isolation Speciation: Population Genetics: Origin of Man: Zoogeographical Realms With reference to fauna: Extinctions: 	48	100 %	Nil	-	







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Syllabus Completion Report- (Year 2021-22)

Term -II

Name of the Teacher: Ms. V.R. Kapse

Department: Zoology

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
T.Y.B.Sc	Environmental Impact Assessment	 Environment Pollution: Sustainable development: Overview of Environmental Protection acts: Environmental Impact Assessment (EIA): EIA Process: Stakeholders in EIA process: Overview of Scheme for Accreditation of EIA Consultant Organizations(NABET / QCI): 	48	100 %	Nil	-	



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Syllabus Completion Report- (Year 2021-22)

Term -I

Name of the Teacher: Dr. M.S. Patil

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
M.Sc	ZOUT 111 Biochemistry and Biochemical Techniques	 Biochemistry: 2. Basics of chemistry 3. Chemistry of Water 4. Carbohydrates: 5. Lipids: 6. Vitamins: 7. Amino acids: 8. Proteins: 9. Enzymes: Biochemical Techniques: 1. Chromatography: 2. Electrophoresis: 3. Absorption spectroscopy: 4. Radioactivity: 	48	100 %	Nil	-	

5. Manometry:			
 Methods for protein sequencing. Methods for DNA sequencing. Centrifugation: 			

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Name of the Teacher: Mr. R.B. Patil

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
M.Sc	ZOUT 112 Cell Biology &	Cell Biology					
	Developmental Biology	1. Cell Theory					
		2. Overview of chemical nature of the cell					
		3. Plasma membrane					
		4. Endomembrane system					
		5. Mitochondria	48	100 %	Nil	-	
		6. Nucleus					

7. Cell Cycle
8. Cytoskeleton
9. Cancer
10. Cell signaling
Developmental Biology
1. Introduction to developmental biology
2. Model Organisms
3. Gametogenesis
4. Fertilization
5. Types of eggs
6. Morphogenesis
7. Pattern formation: Setting up the body axis
8. Organizers
9. Regeneration
10. Apoptosis, aging and senescence



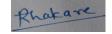
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Name of the Teacher: Ms. P.B. Khapre

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
M.Sc	ZOUT 113 Genetics & English in Scientific Communication	 Genetics Recapitulation of Mendelian principles Classical concept of a gene Gene interactions and epistasis Linkage and crossing over Quantitative genetics Principles of Population Genetics Somatic cell genetics Microbial genetics Extra chromosomal inheritance 	48	100 %	Nil	_	
		 10. Human genetics English in Scientific Communication 1. Language as a communication tool 2. Pragmatic competence:co-operative principles 3. Organisation of English language 4. Common errors in written and spoken English 					

	 Oral presentation Drafting of a research project 			
	 Drafting of a research project Outline of a scientific research paper 			
	8. Editing and correcting			
	9. Plagiarism			



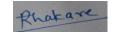




Name of the Teacher: Ms. P.B. Khapre

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
M.Sc	ZODT 114 Fresh Water Zoology	 Introduction to freshwater habitats. Physico-chemical conditions of freshwater General characters of plankton Introduction to minor phyla: Diversity and economic importance of freshwater Crustacea and Mollusca. 	48	100 %	Nil	-	

6. Locomotory and respiratory adaptation in freshwater insect orders
7. Diversity and distribution of vertebrates in the freshwater bodies of India
8. Adaptive physiology of freshwater fauna:9. Anthropogenic impact on freshwater:



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Syllabus Completion Report- (Year 2021-22)

Term -II

Name of the Teacher: Dr. M.S. Patil

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
M.Sc	ZOUT 121 Molecular Biology & bioinformatics	Molecular Biology: 1. DNA structure and topology					

2. Physical properties of DNA					
3. Genome organization					
4. DNA Replication					
5. DNA damage and repair	48	100 %	Nil	-	
6. Transcription					
7. Gene regulation and expression					
8. Protein synthesis					
9. Mobile DNA elements					
Bioinformatics:					
1. Introduction					
 Databases – Tools and their uses Sequence alignment methods Predictive applications using DNA and protein sequences 					

MePatil

Signature of faculty

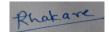
MePatil

55 Signature of Principal

Name of the Teacher: Ms. P.B. khapre

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
M.Sc	ZOUT 122 Endocrinology & Parasitology	 Endocrinology: 1. Hormones as chemical messenger 2. Hormone receptors 3. Mechanism of hormone action- 4. Hypothalamic hypophysiotropins 5. Adenohypophysial hormones 6. Control of chromatophores 7. Hormonal regulation 8. Osmoregulatory hormones 9. Gastrointestinal hormones 10. Control of calcium and phosphate metabolism 11. Endocrine mechanism in crustacean 	48	100 %	Nil	-	

12. Chronobiology			
Parasitology:			
1. Host-Parasite systems			
 Type study Genetics & Molecular Biology 			
4. Serology & immunodiagnostic methods			
5. Prophylaxis & control			





Signature of HOD



Name of the Teacher: Mr. R. B. Patil

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	-	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
M.Sc	ZOUT 12 Comparative Animal Physiology & Environmental Biology	Comparative Animal Physiology: 1. Digestion 2. Respiration				completed	

3. Muscle contraction					
4. Osmotic regulation	48	100 %	Nil	-	
5. Excretion					
6. Thermoregulation					
7. Chemical Communication					
8. Sense organ					
Environmental Biology:					
1. Introduction: Fundamentals of Ecology, Ecosystems					
2. Environmental Microbiology					
3. Biomes and Habitat Diversity					
4. Biological diversity of India					
5. Population and Community Ecology					
6. Wetlands Forests and Semi-Arid Habitats of India					
7. Endangered, Endemic and Extinct Species of India					
8. Wildlife management and conservation					
9. Introduction to human animal conflict.					







Name of the Teacher: Ms. V.R. Kapse

Department: Zoology

Class	Title of the paper	Name of the chapters taught up to 15/10/2019	Number of period used up to 15/10/2019	Percentage of completed syllabus	Name of remaining chapters to be taught	In how many periods remaining syllabus will be completed	Remark
M.Sc	ZODT 124: Ichthyology	 Ichthyology Introduction, general characteristics, evolutionary succession and fossil historyof fishes Eschmeyer's classification of fishes and diagnostic characters External morphology Food and feeding habits Respiratory mechanism Circulatory system Excretion and Osmoregulation: Reproduction Nervous system and Sense organs Endocrine system: Fish pathology Ornamental Fish production and management 	48	100 %	Nil	-	





Signature of Principal