ODD SEMESTER 2021-2022

TEACHING PLAN

A. GENERAL INFORMATION

Name of the Faculty	:	Dr.MadhuramozhiGovindarajalu
Department	:	Zoology
Programme	:	M.Sc
Programme Code	:	PSZ
Name of the Paper	:	GENETICS
Lecture Hours	:	90 Hrs

B. ABOUT THE COURSE:

	Course Objectives		Course Outcomes	7	Feaching Methodology
•	To give an in-depth	•	Student will test and	•	Power Point
	understanding on the		deepen their mastery of	•	E – Module
	principles and mechanisms		genetics by applying this	•	Chalk & Talk Method
	of inheritance		knowledge in a variety of	•	Lecture Method
•	To help study the fine		problem solving	•	Discussion Method
	structure and molecular		situations	•	Study Assignment
	aspects of genetic material	•	Student learn the basic		Method,
•	To provide an opportunity		principles if inheritance	•	Problem Solving
	to learn the importance of		at molecular level		Method
	inheritance in Man	•	Job offer: Technician in	•	Seminar Method
•	To provide an		Karyotyping in Medical		
	understanding on the		Research Centre		
	process and theories in	•	Research scientist in		
	evolutionary biology		ICMR institutes		
•	To expose students to the	•	Research Assistant in		
	basics and advances in		Institute of Forest		
	Evolution		Genetics and Tree		
			Breeding, Coimbatore		

C. PLAN OF THE WORK:

Unit / Modules	Topic to be covered	Proposed	Lecture	Practical	Remarks
		date	Hrs	Hrs	
Unit I	Mendelian inheritance	09.08.2021	3		
Content- 15 hrs	• Interaction of genes	to	3		
Assessment –3 hrs	Multiple alleles	03.09.2021	3		
Total – 18 hrs	• Linkage and crossing over		3		
	Sex determination				
			3		
Unit II	• Structure of gene.	04.09.2021	4		
Content- 16 hrs	Mechanism of homologous	to			
Assessment – 2 hrs	recombination.	2509.2021	4		
Total - 18 hrs	Gene expression.				
	Hardy-Weinberg		4		
	equilibrium.				
			4		
Unit III	• Gene mutation	27.09.2021	5		
Content- 15 hrs	Nuclear transplantation	to			
Assessment – 3 hrs	Extra chromosomal	30.09.2021	5		
Total - 18 hrs	inheritance				
			5		
Unit IV	Inborn errors of	30.11.2021	4		
Content- 16 hrs	metabolism	to			
Assessment –2 hrs	Disorders of purine	14.12.2021	4		
Total - 18 hrs	metabolism.				
	Disorders of lipid				
	metabolism.		4		
	Chromosomal syndrome		4		
Unit V	Genetic engineering.	15.12.2021	5		
Content- 15 hrs	Genetic counselling.	to	5		
Assessment – 3 hrs	Pedigree analysis	28.12.2021	5		
Total - 18 hrs					

D. ACTIVITIES:

Activities Name	Details
Test	Monthly Test- Unit-I (August)
	Monthly Test - Unit-II (September)
	CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2 ½ Units
	(November)
	Monthly Test– Unit –IV (September)
	27.12.2021 to 05.01.2022
	CIA / Model Examination -Unit-III(Second 1/2 Unit) –Unit-V- 2 ½ Units
Assignment	Assignment I –Unit –I and Unit –II (August)
	Assignment II – Unit –III and Unit – IV (September)
Quiz	Two Mark Quiz Test - Unit I – Unit – V (December)
Seminar	Unit –V (September and December)
Tutorial Ward Meeting	Monthly Once

R. Dom r

PRINCIPAL Principal A.D.M. College For Women Autonomous, Nagapattinam.

A. GENERAL INFORMATION

Name of the Faculty	:	Dr.MadhuramozhiGovindarajalu
Department	:	Zoology
Programme	:	B.Sc
Programme Code	:	USZ
Name of the Paper	:	Biotechnology
Lecture Hours	:	60 Hrs

B. ABOUT THE COURSE:

Course Objectives	Course Outcomes	Teaching		
		Methodology		
Know the application of	• Describe the application of	Power Point		
biotechnology in Biological sciences.	biotechnology in Biological	• E – Module		
• Well known the mechanism of gene	sciences.	• Chalk & Talk		
transfer in prokaryotes.	• Apply the mechanism of gene	Method		
• Learn the role of genetic	transfer in prokaryotes.	• Lecture Method		
engineering in human welfare.	Analyze the role of genetic	• Discussion Method		
• Understand the molecular markers	engineering in human	Study Assignment		
and its application in biotechnology.	welfare.	Method		
• Know the role of microbes in	• Explain the molecular	Problem Solving		
bioremediations.	markers and its application	Method		
	in biotechnology.	Seminar Method		
	• Evaluate the role of microbes			
	in bioremediations.			

C. PLAN OF THE WORK:

Unit / Modules	Topic to be covered	Proposed	Lecture	Practical	Remarks
		date	Hrs	Hrs	
Unit I Content- 15 hrs Assessment – 3 hrs	• Scope and Importance Genetic Engineering.	09.08.2021 to	3		
Total – 18 hrs	 Gene Cloning. Tools of Genetic Engineering. Transgenic plants and animals. 	03.09.2021	4 4 4		
Unit II Content- 15 hrs,	Blotting techniques.Gene bank.	04.09.2021 to	3		
Assessment – 3 hrs Total – 18 hrs	 Polymerase chain reaction (PCR). Monoclonal 	2509.2021	2		
	antibody production.		2		
	 Application of biotechnology in medicine. Gene therapy. 		3 2		
Unit III	Fermentation	27.092021	3		
Content- 15 hrs Assessment – 3 hrs	techniques.Construction of fermenter.	to 30.09.2021	3		
Total – 18 hrs	Process of fermentation.		3		
	Ethanol production.Application of		3		
	biotechnology in industry.		3		

D. ACTIVITIES:

Activities Name	Details
Test	Monthly Test- Unit-I (September)
	CIA / Mid Semester –Unit-II (October)
	25.10.2021 to 08.11.2021
	CIA / Model Examination –Unit - III (November)
	28.12.2021 to 07.01.2022
Assignment	Assignment I – Unit – I (September)
	Assignment II – Unit – II (October)
	Assignment III – Unit – III (November)
Quiz	Two Mark Quiz Test - Unit II – Unit – III (November)
Seminar	Unit –III (September and October)
Tutorial Ward	Monthly once
Meeting	

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Principal A.D.M. College For Women Autonemous, Nagapattinam.

A. GENERAL INFORMATION

Name of the Faculty	:	Dr. S. ANGELINA GLORITA PARIMALA
Department	:	Zoology
Programme	:	B. Sc
Programme Code	:	USZ
Name of the Paper	:	CC VIII- Environmental Biology,
		Biodiversity conservation and Evolution
Lecture Hours	:	90 Hrs

B. <u>ABOUT THE COURSE:</u>

Course Objectives	Course Outcomes	Teaching
		Methodology
Define and Introduce the	Know about	• Chalk & Talk
term Environmental	Environment	method
Biology	Characters of	• Power Point,
• To learn about Community	Community and	• LCD
and Population Ecology	Population	• e – Module
• To study about Biodiversity	• Understand the	• Lecture method
• To facilitate the theories on	Evolutionary Process	Discussion
Evolution		• Assignment ,
• To find the Evolutionary		• Drawing mode
trend in Human.		method
		• Seminar

C. <u>PLAN OF THE WORK:</u>

Unit / Modules	Topic to be covered	Proposed	Lecture	Practical	Remarks
		date	Hrs	Hrs	
Unit I	Abiotic factors		4 Hrs	-	-
Content- 15 hrs	Biotic factors	09.08.2021	3 Hrs		
Assessment – 3 hrs	Pond Ecosystem	to	4 Hrs		
Total – 18 hrs	Animal Association.	17.08.2021	4 Hrs		
Unit II	Community- characters		4 Hrs	-	-
Content- 15 hrs	 Population - characters 	18.08.2021	4 Hrs		
Assessment – 3 hrs	 Age pyramids 	to	3 Hrs		
Total 10 hrs	 Biotic potential of 	14.09.2021	4 Hrs		
Total – 18 hrs	Population				
Unit III	• Types of Biodiversity		3 Hrs	-	-
Content- 15 hrs	 Values of Biodiversity 	12.10.2021	4 Hrs		
Assessment – 3 hrs	 Threats to Biodiversity 	to	4 Hrs		
Assessment - 5 ms	 Man – Wild life conflicts 	03.10.2021	4 Hrs		
Total – 18 hrs					
Unit IV	Hot spots		4 Hrs	-	-
Content- 15 hrs	Conservation of	08.10.2021	3 Hrs		
Assessment – 3 hrs	Biodiversity	to	4Hrs		
Total – 18 hrs	 National Parks 	23.10.2021	4 Hrs		
	 Sanctuaries 				
Unit V	Origin of life		4 Hrs	-	-
Content- 15 hrs	 Theories on Evolution 	13.11.2021	2 Hrs		
Assessment – 3 hrs	 Molecular Evolution 	to	4 Hrs		
Total – 18 hrs	• Evolution of Man	28.11.2021	5 Hrs		

D. ACTIVITIES:

Activities Name	Details
Test	Monthly Test- Unit-I (August)
	Monthly Test - Unit-II (September)
	CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2
	½ Units (November)
	Monthly Test– Unit –IV (September)
	27.12.2021 to 05.01.2022
	CIA / Model Examination -Unit-III(Second 1/2 Unit) –
Assignment	Unit-V- 2 ½ Units
	Assignment I –Unit –I and Unit –II (August)
Quiz	Assignment II – Unit –III and Unit – IV (September)
Seminar	Two Mark Quiz Test - Unit I – Unit – V (December)
Tutor Ward Meeting	Unit –V (September and December)
	Monthly Once

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Principal A.D.M. College For Women Autonemous, Nagapattinam.

A. GENERAL INFORMATION

Name of the Faculty	:	Dr. S. ANGELINA GLORITA PARIMALA
Department	:	Zoology
Programme	:	M.Sc (I M Sc Zoology)
Programme Code	:	PSZ
Name of the Paper	:	CCIV- MICROBIOLOGY AND IMMUNOLOGY
Lecture Hours	:	90 Hrs (5 UNITS)

B. <u>ABOUT THE COURSE:</u>

Course	Course Outcomes	Teaching Methodology
Objectives		
• To study about the	• Develop the	Power Point
History and scope of	knowledge over the	• e – Module
Microbiology	classification of	• Chalk & Talk Method
• To learn about	micro organisms	• Lecture Method
microbes in food	• Analyze the food	• Discussion Method
• To acquire the	contamination	• Study Assignment Method
knowledge of	• Understand the	Problem Solving Method
diseases caused by	importance of	Seminar Method
the microbes	microbes in	
	Industrial products	
	production.	

C. PLAN OF THE WORK:

Unit /		Topic to be	Proposed	Lecture	Practical	Remarks
Modules		covered	date	Hrs	Hrs	
Unit I	•	History , Scope and	20.09.2021	5 Hrs	-	-
Content- 15 hrs		classification	to	5 Hrs		
Assessment – 3 hrs	•	Bacterial growth and	17.10.2021	5Hrs		
Total – 18 hrs		Nutrition				
	•	Types of culture media				
		and culture techniques.				
Unit II	•	Role of microbes in	19.10.2021	5 Hrs	-	-
Content- 15 hrs,		food production	to	5 Hrs		
Assessment – 3 hrs	•	Food contamination	30.11.2021	5 Hrs		
Total – 18 hrs		and spoilage by				
		microbes				
	•	Microbes in				
		fermentation				
Unit III	•	Causative agents of	01.12.2021	4 Hrs	-	-
Content- 15 hrs		Microbes	to			
Assessment – 3 hrs	•	Control of diseases	16.12.2021	3Hrs		
	•	Types of Bacterial				
Total – 18 hrs		diseases		4 Hrs		
	•	Types of Viral diseases		4 Hrs		
Unit IV	•	Humoral & Cell	01.12.2021	4 Hrs		
Content- 15 hrs		mediated Immunity	to			
Assessment – 3 hrs	•	Lymphoid Organs	16.12.2021	3Hrs		
Total – 18 hrs	•	Cells of Immune		4 Hrs		
10101 10 1113		System				
	•	Types of Compliments		4 Hrs		

Unit V	•	Immunodeficiency	17.12.2021	4 Hrs		
Content- 15 hrs,		diseases	to	3 Hrs		
Assessment – 3 hrs	•	Monoclonal &	03.01.2022	4 Hrs		
Total – 18 hrs		Polyclonal antibodies		4 Hrs		
	•	Immuno				
		electrophoresis				
	•	ELISA technique				

D. ACTIVITIES:

Activities Name	Details	
Test	Monthly Test- Unit-III (September)	
	CIA / Mid Semester –Unit-IV (October)	
	25.10.2021 to 08.11.2021	
	CIA / Model Examination –Unit - IV (November)	
	28.12.2021 to 07.01.2022	
Assignment	Assignment I – Unit – III (September)	
	Assignment II – Unit – IV (October)	
	Assignment III – Unit – V (November)	
Quiz	Two Mark Quiz Test - Unit III – Unit – IV (November)	
Seminar	Unit –V (September and October)	
Tutorial Ward Meeting	Monthly once	

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Principal A.D.M. College For Women Autonomous, Nagapattinam.

Teaching Plan

A. General Information:

Name of the Faculty	:	Dr.S.Krishnaveni
Department	:	Zoology
Programme	:	II-M.Sc., Zoology
Name of the Paper	:	Animal Physiology
Programme code	:	PSZ
Lecture Hours	:	90

B. About the course :

C. PLAN OF THE WORK

Unit /Modules	Topic to be covered	Proposed	Lecture	Practical	Remarks
		Date	Hours	Hours	
Unit I	Nutrition	10.8.2021	4		
Content- 15 hrs	• Vitamins	to	4		
Assessment – 3 hrs	Respiration	3.9.2021	4		-
Total – 18 hrs	• Transport of O_2		3		
	and CO_2				
Unit II	Circulation	4.9.2021 to	4		
Content- 15 hrs	Excretion	21.9.2021	3		
Assessment – 3 hrs	Osmoregulation		4		
Total – 18 hrs	Homeostasis		4		-
Unit III	Muscle physiology	30.9.2021	3		
Content- 15 hrs	• Chemistry of	to	3		
Assessment – 3 hrs	muscle	29.10.2021			-
T (1, 10, 1	Muscle		4		
Total – 18 hrs	contraction		3		
	Nerve physiology		2		
	• Reflex		2		
Unit IV	Receptor	30.10.2021	3		
Content- 15 hrs	Phonoreceptor	to	3		
Assessment – 3 hrs	Photoreceptor	15.11.2021			-
Total – 18 hrs	Rhythm		4		
	Photoperiodicity		3		
Unit V	Pituitary	16.11.2021	4		
Content- 15 hrs,	Gland	to	4		
Assessment – 3 hrs	Thyroid gland	29.12.2021	4		
Total – 18 hrs	Parathyroid gland		3		

•	Adrenal and islets		
•	Male reproductive	4	
	system	т	
•	Female		
	reproductive		
	system		
•	Role of hormones		
	in reproduction		

D.ACTIVITIES:

Activities Name	Details
Test	Monthly Test- Unit-I (August)
	Monthly Test - Unit-II (September)
	CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2 ½ Units
	(November)
	Monthly Test– Unit –IV (September)
	27.12.2021 to 05.01.2022
	CIA / Model Examination -Unit-III(Second 1/2 Unit) –Unit-V- 2 ½
Assignment	Units
Quiz	Assignment I –Unit –I and Unit –II (August)
Seminar	Assignment II – Unit –III and Unit – IV (September)
	Two Mark Quiz Test - Unit I – Unit – V (December)
Tutor Ward Meeting	Unit –V (September and December)
	Monthly Once

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Principal A.D.M. College For Women Autonemous, Nagapattinam.

A.General Information:

Name of the Faculty	:	Dr.S.Krishnaveni
Department	:	Zoology
Programme	:	III – B.SC., Zoology
Name of the Paper	:	Genetics and Microbiology
Programme code	:	USZ
Lecture Hours	:	90

A. About the course :

Course objectives	Course outcomes	Teaching Methodology
 To understand the basics of Genetics To study the importance of sex determination and mutation To obtain in depth knowledge in Microbiology To study the importance of Microbial Diseases Distinguish different chromosomal aberration in human 	 Able to explain the role of the mendelian inheritance and multiple alleles in day to day life activities. Understand the cause and effect of alterations in chromosome number in sex determination. Understanding the applications of genetics for the welfare of health and treatment of disease, and the impact of selective advantage and natural selection on human genetic disorders. Acquired technical skills will help the students for collecting and processing biological specimens for analysis. 	 Power point e - Module Chalk & Talk Method Lecture Method Discussion Method Study Assignment Method Problem Solving Method Seminar Method

•	Students enable their
	critical and analytical
	thinking in the detection of
	diseases and to distinguish
	normal and abnormal
	microscopic pathogens.

C.PLAN OF THE WORK

Topic to be covered	Proposed	Lecture	Practical	Remarks
	Date	Hours	Hours	
Mental laws		3 hrs		
Multiple allele	11.8.2021	3 hrs		
• Blood groups &	to	3 hrs	3 hrs	-
inheritance	16.9.2021	3 hrs		
Linkage		3 hrs		
Crossing over				
Sex Determination		4 hrs		
Gynandromorphism	17.9.2021	4hrs		
Population Genetic	to	3hrs	-	-
• Hardy, Weinberg law	18.10.2021	4hrs		
and inheritance				
Gene mutation	19.10.2021	4hrs		
Aneuploidy	to	4hrs		
Polyploidy	15.11.2021	3hrs	-	-
Human genetics		4hrs		
Organization of bacteria		3hrs		
• Growth curve of bacteria	16.11.2021	3 hrs 3hrs		
Cultural medium	to	3hrs		
• Serial dilution technique	23.12.2021	3hrs	-	-
• Streak plate method				
	 Mental laws Multiple allele Blood groups & inheritance Linkage Crossing over Sex Determination Gynandromorphism Population Genetic Hardy, Weinberg law and inheritance Gene mutation Aneuploidy Polyploidy Human genetics Organization of bacteria Growth curve of bacteria Cultural medium Serial dilution technique 	 Mental laws Mental laws Multiple allele Blood groups & to 11.8.2021 Blood groups & to 16.9.2021 Linkage Crossing over Crossing over Sex Determination Gynandromorphism Gynandromorphism Population Genetic Hardy, Weinberg law and inheritance Gene mutation Hardy, Weinberg law and inheritance Gene mutation Aneuploidy Polyploidy Human genetics Growth curve of bacteria Growth curve of bacteria Cultural medium Serial dilution technique 	 Mental laws Mental laws Multiple allele Blood groups & to Blood groups & to Blood groups & 11.8.2021 Anrs Blood groups & 16.9.2021 Anrs Linkage Crossing over Krossing over Sex Determination Sex Determination Gynandromorphism Mardy, Weinberg law and inheritance Hardy, Weinberg law and inheritance Gene mutation Aneuploidy Polyploidy Human genetics Growth curve of bacteria Growth curve of bacteria Cultural medium Serial dilution technique Za.12.2021 	 Mental laws Mental laws Multiple allele Blood groups & to Blood groups & to Blood groups & 11.8.2021 Blood groups & 16.9.2021 Jhrs Linkage Crossing over Kasse Determination Gynandromorphism T7.9.2021 Ahrs Gynandromorphism T7.9.2021 Ahrs Anss Anss

Unit V	•	Recombination in		3hrs		
Content- 15 hrs,		bacteria	24.12.2021			
Assessment – 3 hrs	•	Conjucation,	to	3hrs		
Total – 18 hrs	•	Transformation and	21.8.2021	4hrs	-	-
		Transduction		5hrs		
	•	Microbial disease in man				
	•	Viral disease				

D.ACTIVITIES:

Activities Name	Details
Test	Monthly Test- Unit-I (August)
	Monthly Test - Unit-II (September)
	CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2 ½
	Units (November)
	Monthly Test– Unit –IV (September)
	27.12.2021 to 05.01.2022
	CIA / Model Examination -Unit-III(Second 1/2 Unit) –Unit-V- 2
Assignment	1/2 Units
Assignment	Assignment I –Unit –I and Unit –II (August)
	Assignment II – Unit –III and Unit – IV (September)
Quiz	Two Mark Quiz Test - Unit I – Unit – V (December)
	Unit –V (September and December)
Seminar	Monthly Once
Tutor Ward Meeting	

R. Dom r

PRINCIPAL

Principal A.D.M. College For Women Autonomous, Nagapattinam.

A. GENERAL INFORMATION

Name of the Faculty	:	Dr. S. VANITHA
Department	:	Zoology
Programme	:	B.Sc
Programme Code	:	USZ
Name of the Paper	:	CC I –Biology of Invertebrates
Lecture Hours	:	90 Hrs

B. ABOUT THE COURSE:

Course Objectives	Course Outcomes	Teaching
		Methodology
• To understand the	Describe the distinguishing	• Chalk & Talk
systematic and functional	characteristics of the major taxa.	method
morphology of various	Explain the basic aspects of	• Power Point,
groups of invertebrates.	classification details of	• LCD
• To study the	invertebrates.	• OHP
characteristics, economic	• Understand biodiversity,	• e – Module
importance, affinities and	habitat,adaptation,organization	• Lecture
adaptations of	and taxonomic status of	method
invertebrates.	invertebrates.	Discussion
• Understand the non	Recall certain morphological	• Assignment,
chordate animals in the	attributes and physiological	• Drawing mode
world that surrounds us.	processes that are distinct and	method
• Observe the process of	significant to each Phyla.	• Seminar
evolution from unicellular	• Understand the systemic and	
cells to multi cellular	functional morphology of	
organism.	various groups of invertebrates	
Able to recognize	• Explain the basic aspects of	

economically important	structural and functional details	
invertebrate fauna.	of Invertebrates	
	• To compare and understand the	
	general and specific	
	characteristics.	

C. <u>PLAN OF THE WORK:</u>

Unit / Modules	Topic to be covered	Proposed	Lecture	Practical	Remarks
		date	Hrs	Hrs	
Unit I	General characters and		4 Hrs		
Content- 15 hrs	classification up to classes	20.09.2021			
Assessment – 3 hrs	with suitable examples of	to			
Total – 18 hrs	biological interest.	30.09.2021	3 Hrs		
	• Phylum Protozoa -				
	Detailed study of		4 Hrs		
	Paramaecium and			-	-
	Plasmodium				
	• Nutrition in Protozo,				
	Protozoa and Human				
	diseases (Entamoeba,				
	Trypanosoma, Leishmania,		4 Hrs		
	Trichomonas,Toxoplasma,				
	Balantidium with special				
	reference to mode of				
	infection, pathology and				
	control Phylum Porifera				
	• Detailed study of Sycon				
	Canal system in sponges				
	Spicules in sponges.				
Unit II	• Phylum Coelenterata -		4 Hrs	-	-
Content- 15 hrs,	Detailed study of Obelia	01.10.2021			

Assessment - 3 results and Cora reers to the first organization and affinities. Total - 18 hrs Ctenophora-General 13.10.2021 Total - 18 hrs Phylum-Playhelminthes- Detailed study of <i>Fasciola</i> hepatica. Parasites affecting Man & Domestic animals (<i>Schistosoma</i> haematobium, <i>Taenia</i> solium, <i>Hymenolepis</i> nana, <i>Diphyllobothrium</i> latum, <i>Schistosoma</i> nasolis and <i>Echinococcus</i> granulosa) Unit III Phylum- Content - 15 hrs Nemathelminthes Detailed study of Ascaris to SHrs Total - 18 hrs Nemathelminthes Detailed Nematode parasites in 09.11.2021 5 Hrs Total - 18 hrs Mematobius vermicularis, <i>Ancyclostomaduodenale,</i> <i>Wuchereria bancrofiti,</i> <i>Dracunculus medinensis,</i> <i>Trichinella spiralis</i> with special reference to mode of infection, pathology and control). Phylum Annelida- Detailed study of Nereis Adaptive radiation in Polychaetes	According to 2		to	4 11.00		
Total - 18 hrsorganization and affinities. Phylum-Platyhelminthes- Detailed study of Fasciola hepatica.3 llrs• Phylum-Platyhelminthes- Detailed study of Fasciola hepatica.4 llrs• Parasites affecting Man & Domestic animals (Schistosoma haematobium, Taenia solum, Hymenolepis nana,Diphyllobothrium latum, Schistosoma nasolis and Echinococcus granulosa)4 llrsUnit III Content - 15 hrs• Phylum- Nemathelminthes Detailed study of Ascaris5 HrsAssessment - 3 hrs Total - 18 hrs• Nematode parasites in man (Enterobius vermicularis, Ancyclostomaduodenale, Wuchereria bancrofti, Dracunculus medinensis, Trichinella spiralis with special reference to mode of infection, pathology and control).5 Hrs• Phylum Annelida- Detailed study of Nereis • Adaptive radiation in5 Hrs	Assessment – 3	Corals and Coral reefs	to	4 Hrs		
10tal - 18 hrs• Phylum-Platyhelminthes- Detailed study of Fasciola hepatica.3 Hrs• Parasites affecting Man & Domestic animals (Schistosoma haematobium, Taenia solium, Hymenolepis 	hrs		13.10.2021			
 Detailed study of Fasciola hepatica. Parasites affecting Man & Domestic animals (Schistosoma haematobium, Taenia solium, Hymenolepis nana,Diphyllobothrium latum, Schistosoma nasolis and Echinococcus granulosa) Phylum- S Hrs Memathelminthes Detailed 18.10.2021 S Hrs Nemathelminthes Detailed Nematode parasites in 09.11.2021 S Hrs Nematode parasites in 09.11.2021 S Hrs Nematode parasites in Nematode parasites in Nematode parasites in Muchereria bancrofti, Dracunculus medinensis, Trichinella spiralis with special reference to mode of infection, pathology and control). Phylum Annelida- Detailed study of Nereis Adaptive radiation in 	Total – 18 hrs	organization and affinities.				
hepatica.hepatica.4 HrsParasites affecting Man & Domestic animals (Schistosoma haematobium, Taenia solium, Hymenolepis nana,Diphyllobothrium latum, Schistosoma nasolis and Echinococcus granulosa)4 HrsUnit III••Content- 15 hrs•18.10.2021Assessment - 3 hrs••Total - 18 hrs•09.11.2021Study of Ascaris09.11.2021••• <td></td> <td>• Phylum-Platyhelminthes-</td> <td></td> <td>3 Hrs</td> <td></td> <td></td>		• Phylum -Platyhelminthes-		3 Hrs		
 Parasites affecting Man & Domestic animals (<i>Schistosoma</i> haematobium, Taenia solium, Hymenolepis nana,Diphyllobothrium latum, Schistosoma nasolis and Echinococcus granulosa) Phylum- S Hrs S Hrs S Hrs S Hrs S Hrs S Hrs Nemathelminthes Detailed Nematode parasites in man (<i>Enterobius</i> vermicularis, S Hrs S Hrs<!--</td--><td></td><td>Detailed study of Fasciola</td><td></td><td></td><td></td><td></td>		Detailed study of Fasciola				
Unit IIIOmestic animals (Schistosoma haematobium, Taenia solium, Hymenolepis nana, Diphyllobothrium latum, Schistosoma nasolis and Echinococcus granulosa)5 HrsUnit III• Phylum- study of Ascaris5 HrsContent- 15 hrsNemathelminthes Detailed study of Ascaris18.10.2021 toAssessment - 3 hrs• Nematode parasites in wermicularis, vermicularis, Dracunculus medinensis, Trichinella spiralis with special reference to mode of infection, pathology and control).5 Hrs• Phylum Annelida- Detailed study of Nereis • Adaptive radiation in5 Hrs		hepatica.				
(Schistosoma haematobium, Taenia solium, Hymenolepis nana, Diphyllobothrium latum, Schistosoma nasolis and Echinococcus granulosa)Ise and the second		• Parasites affecting Man &		4 Hrs		
haematobium, Taenia solium, Hymenolepis nana,Diphyllobothrium latum, Schistosoma nasolis and Echinococcus granulosa)Image: Second Se		Domestic animals				
solium, Hymenolepis nana, Diphyllobothrium latum, Schistosoma nasolis and Echinococcus granulosa)solia second second second to second to seco		(Schistosoma				
nana,Diphyllobothrium latum, Schistosoma nasolis and Echinococcus granulosa)Image: Second S		haematobium, Taenia				
latum, Schistosoma nasolis and Echinococcus granulosa)latum, Schistosoma nasolis and Echinococcus granulosa)latum, Schistosoma nasolis and Echinococcus granulosa)Unit III• Phylum•5 HrsContent- 15 hrs• Nemathelminthes Detailed study of Ascaris18.10.2021Assessment - 3 hrs• Nematode parasites in man (Enterobius vermicularis,09.11.2021Total - 18 hrs• Nematode parasites in man (Enterobius vermicularis,09.11.2021Dracunculus medinensis, Dracunculus medinensis,5 HrsTrichinella spiralis with special reference to mode of infection, pathology and control).5 HrsPhylum Annelida- Detailed study of Nereis • Adaptive radiation in-		solium, Hymenolepis				
Assessment - 3 hrs- Nematode parasites in man (Enterobius vermicularis,5 Hrs6 HrsTotal - 18 hrs09.11.20215 HrsAncyclostomaduodenale, Wuchereria bancrofti,09.11.20215 HrsAncyclostomaduodenale, Wuchereria bancrofti,5 HrsAncyclostomaduodenale, Wuchereria bancrofti,5 HrsAncyclostomaduodenale, Wuchereria bancrofti,5 HrsAncyclostomaduodenale, Wuchereria bancrofti,5 HrsAncyclostomaduodenale, Wuchereria bancrofti,Barbard Dracunculus medinensis, Trichinella spiralis with special reference to mode of infection, pathology and control)Hotal - 10, Detailed study of Nereis Hotal - 10, Hotal - 10, Hotal - 10, 		nana,Diphyllobothrium				
Image: granulosaImage: granulosaImage		latum, Schistosoma nasolis				
Image: control in the second		and Echinococcus				
Content- 15 hrsNemathelminthes Detailed18.10.2021Nemathelminthes DetailedAssessment - 3 hrsstudy of Ascaris09.11.20215 HrsTotal - 18 hrsman (Enterobius vermicularis,09.11.20215 HrsAncyclostomaduodenale, Wuchereria bancrofti,Ancyclostomaduodenale, Dracunculus medinensis,5 HrsTrichinella spiralis with special reference to mode of infection, pathology and control).5 Hrs14.1Phylum Annelida- Detailed study of NereisAdaptive radiation in		granulosa)				
Content- 15 hrsNemathelminthes Detailed18.10.2021Nemathelminthes DetailedAssessment - 3 hrsstudy of Ascaris09.11.20215 HrsTotal - 18 hrsman (Enterobius vermicularis,09.11.20215 HrsAncyclostomaduodenale, Wuchereria bancrofti,Ancyclostomaduodenale, Dracunculus medinensis,5 HrsTrichinella spiralis with special reference to mode of infection, pathology and control).5 Hrs14.1Phylum Annelida- Detailed study of NereisAdaptive radiation in						
Assessment - 3 hrsstudy of AscaristoAssessment - 3 hrsNematode parasites in man (Enterobius vermicularis,09.11.20215 HrsTotal - 18 hrsman (Enterobius vermicularis,Ancyclostomaduodenale, Wuchereria bancrofti, Dracunculus medinensis, Trichinella spiralis with special reference to mode of infection, pathology and control).5 Hrs-•Phylum Annelida- Detailed study of Nereis ••Adaptive radiation in	Unit III	• Phylum-		5 Hrs		
Assessment - 3 hrs• Nematode parasites in man (Enterobius vermicularis,09.11.20215 HrsTotal - 18 hrsman (Enterobius vermicularis,Ancyclostomaduodenale, Wuchereria bancrofti, Dracunculus medinensis,Dracunculus medinensis, rrichinella spiralis with special reference to mode of infection, pathology and control).5 Hrs-• Phylum Annelida- Detailed study of Nereis • Adaptive radiation in	Content- 15 hrs	Nemathelminthes Detailed	18.10.2021			
Total - 18 hrs• Nematode parasites in man (Enterobius vermicularis,09.11.20215 HrsITotal - 18 hrsman (Enterobius vermicularis,Ancyclostomaduodenale, Wuchereria bancrofti, Dracunculus medinensis, Trichinella spiralis with special reference to mode of infection, pathology and control).5 HrsIIPhylum Annelida- Detailed study of Nereis iAdaptive radiation inIIIII	Assessment – 3 hrs	study of Ascaris	to			
vermicularis,-Ancyclostomaduodenale,-Wuchereria bancrofti,-Dracunculus medinensis,5 HrsTrichinella spiralis with-special reference to mode-of infection, pathology and-control)Phylum AnnelidaDetailed study of Nereis-•Adaptive radiation in		Nematode parasites in	09.11.2021	5 Hrs		
Ancyclostomaduodenale,Wuchereria bancrofti,Dracunculus medinensis,Trichinella spiralis withspecial reference to modeof infection, pathology andcontrol).Phylum Annelida-Detailed study of NereisAdaptive radiation in	Total – 18 hrs	man (<i>Enterobius</i>				
Wuchereria bancrofti, Dracunculus medinensis,5 HrsTrichinella spiralis with5 Hrsspecial reference to mode4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		vermicularis,			-	-
Dracunculus medinensis, Trichinella spiralis with special reference to mode of infection, pathology and control).5 HrsPhylum Annelida- Detailed study of Nereis144Adaptive radiation in144		Ancyclostomaduodenale,				
Trichinella spiralis with special reference to mode of infection, pathology and control). Phylum Annelida- Detailed study of Nereis Adaptive radiation in		Wuchereria bancrofti,				
 special reference to mode of infection, pathology and control). Phylum Annelida- Detailed study of Nereis Adaptive radiation in 		Dracunculus medinensis,		5 Hrs		
of infection, pathology and control). • Phylum Annelida- Detailed study of Nereis • Adaptive radiation in		Trichinella spiralis with				
control).Phylum Annelida- Detailed study of Nereis• Adaptive radiation in		special reference to mode				
 Phylum Annelida- Detailed study of Nereis Adaptive radiation in 		of infection, pathology and				
Detailed study of Nereis Adaptive radiation in 		control).				
Detailed study of Nereis Adaptive radiation in 		• Phylum Annelida-				
Adaptive radiation in						
		_				
		,				

Unit IV	• Phylum Arthopoda -	12.11.2021	5 Hrs		
Content- 15 hrs	Detailed study of Penaeus	to			
Assessment – 3 hrs	monodo	09.12.2021	5 Hrs	-	-
Total – 18 hrs	• Organisation & affinities of				
	Peripatus				
	• Crustacean larvae & their		5 Hrs		
	significance, Economic				
	importance of Insects				
Unit V		10.12.2021	4 Hrs	-	-
Content- 15 hrs,	• Phylum-	to			
Assessment – 3 hrs	Nemathelminthes Detailed	24.12.2021	2 Hrs		
Total – 18 hrs	study of Ascaris				
10tal - 10 1115	• Nematode parasites in		4 Hrs		
	man (Enterobius				
	vermicularis,		5 Hrs		
	• Ancyclostomaduodenale,				
	Wuchereria bancrofti,				
	• Dracunculus medinensis,				
	Trichinella spiralis with				
	special reference to mode				
	of infection, pathology and				
	control).				

D. <u>ACTIVITIES:</u>

Activities Name	Details
Test	Monthly Test- Unit-I (August)
	Monthly Test - Unit-II (September) CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2 ½ Units
	(November)

	Monthly Test– Unit –IV (September)		
	27.12.2021 to 05.01.2022		
	CIA / Model Examination -Unit-III(Second 1/2 Unit) –Unit-V- 2 ½ Units		
Assignment	Assignment I –Unit –I and Unit –II (August)		
	Assignment II – Unit –III and Unit – IV (September)		
Quiz	Two Mark Quiz Test - Unit I – Unit – V (December)		
Seminar	Unit –V (September and December)		
Tutor Ward Meeting	Monthly Once		

R. Dom PRINCIPAL

Principal A.D.M. College For Women Autonemous, Nagapattinam.

E. GENERAL INFORMATION

Name of the Faculty	:	Dr. S. VANITHA
Department	:	Zoology
Programme	:	M.Sc (I M Sc Zoology)
Programme Code	:	PSZ
Name of the Paper	:	CC II – CELL AND MOLECULAR BIOLOGY
Lecture Hours	:	90 Hrs

F. <u>ABOUT THE COURSE:</u>

Course Objectives	Course Outcomes	Teaching
		Methodology
Course Objectives:	.Understand the cell	Methodology
 To understand the cell structure in molecular level. .To provide the basic idea about cell cycle and regulation To know the structure and importance of 	 structure in molecular level. Understand basic idea of cell cycle and regulation to apply in research Job offers: Research Scientist in Cancer Research center, Adayar Research Scientist in Tata Memorial Centre for Advanved 	adopted are Power Point e – Module Chalk & Talk Method Lecture Method Discussion Method Study Assignment Method,

genetic	Treatment in Cancer,	• Problem
material	Parel Mumbai	Solving
• To study the	• .Technical officer in	Method
RNA synthesis	Centre for cellular and	• Seminar
in prokaryotes	Molecular	Method
and	Biology(CCMB), TIFR	
eukaryotes	at Hyderabad	
• To understand		
the		
prokaryotes		
and		
eukaryotes		
gene		
expression and		
regulation		

G. PLAN OF THE WORK:

Unit /	Topic to be covered	Propos	Lecture Hrs	Practical	Remarks
Modules		ed date		Hrs	
Unit I	Cell membrane:		5 Hrs		
Content-5hrs	Molecular	25.09.2021			
Assessment	25rganization-	to			
-3 hrs.	molecular models –	17.10.2021			
Total -18hrs	cell permeability – cell				
	surface				
	differentiations and		5 Hrs	-	-
	cell.				

	• cell communication –				
	secretion and				
	endocytic pathways.				
	Structure and				
	functions of cells:				
	Cell organelles –				
	Mitochondria, Golgi				
	complex, Endoplasmic				
	reticulum, Ribosomes		5 Hrs		
	and Lysosomes.				
	Peroxisome.structure				
	& function of				
	cytoskeleton and its				
	role in motility.				
	• Methods of cell study :				
	Micrometry – cell				
	culture methods – cell				
	fractionation				
	technique –				
	cytochemical staining				
	methods –				
	cytophotometry –				
	immunochemistry and				
	autoradiography				
Unit II	Nucleus:		5 Hrs		
Content	Nucleoplasm and	20.10.2021	5 1115		
-5hrs	cytoplasmic relationship-	to			
Assessment	Hammeling's experiment,	19.11.2021			
- 3 hrs.	isolation techniques;				
Total -	ultrastructure of nuclear				
18hrs	envelop and nucleoplasm.				
	Chromosomes:-		5 Hrs	-	-

	Piochomicture Ouropination				
	Biochemistry – Organization				
	of chromatin; Chromosomal				
	types – polytene and lamp				
	brush chromosome.				
	• Cell division :Cell				
	cycle and mitosis-				
	significance of mitosis;		5 Hrs		
	meiosis and reproductive				
	cycle- regulation				
	andsignificance of				
	meiosis.cell cycle-(steps –				
	regulation and control).				
11		00.44	F 11		
Unit III	DNA replication:	22.11.	5 Hrs	-	-
Content - 5hrs	Types of replication-	2021			
Assessment	conservative, dispersive and	to			
- 3 hrs.	semiconservative methods;	10.12.			
Total -18hrs	Process of replication –	2021			
	Origin, replication fork,				
	regulation in prokaryotes				
	and eukaryotes; Role of				
	enzymes and other protein				
	factors in DNA synthesis.		5 Hrs		
	• DNA damage:				
	Sources and types of DNA				
	damage; Nuclear versus				
	mitochondrial DNA damage;				
	Senescence and apoptosis;				
	DNA damage and mutations.		5Hrs		
	• DNA repairing				
	mechanism: Excision repair,				
	SOS repair and mismatch				
	repair.				
	1		1	I	

Unit IV	RNA synthesis:	13.12.	5 Hrs	
Content	Process of transcription-	2021		
- 5hrs.	preinitiation, initiation,	to		
Assessment	promoter clearance,	24.12.		
- 3 hrs.	elongation and termination;	2021		
Total -18hrs	role of enzymes and other		5Hrs	
	protein factors; Measuring			
	and detecting transcription;			
	reverse transcription;			
	synthesis of mRNA in		5 Hrs	
	prokaryotes and eukaryotes;			
	synthesis of rRNA; synthesis			
	of tRNA; RNA processing-			
	capping and			
	polyadenylation.RNA editing,			
	Splicing.			
Unit V	• Genetic code: Process	27.12.	5 Hrs	
Content	of translation – initiation,	2021		
- 5hrs	elongation and termination	to		
Assessment	and post translational	12.01.		
- 3 hrs.	process; role of enzymes and	2022		
Total -18hrs	proteins in protein synthesis			
	– Genetic code.			
	• Gene regulation: Lac		5 Hrs	
	operon- Structure, genetic			
	nomenclature, lactose			
	analogs, regulation in cyclic			
	AMP and uses in molecular			

biology; Trp operon-			
repression and atten	ation.		
Protein transpor			
Intracellular		5Hrs	
compartments and			
protein sorting; ve			
traffic in secretory	and		
endocytic pathway	,		
transport from ER			
through Golgi to ly	sosome		
and endosome.			
Control of gen	2		
expression at transc			
level regulation of p	_		
virus. Prokaryotic a	_		
eukaryotic gene exp			
role of chromatin in			
regulating gene exp	ression		
and gene silencing.			

H. <u>ACTIVITIES:</u>

Activities Name	Details	
Test	Monthly Test- Unit-I (August) Monthly Test - Unit-II (September)	
	CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2 ½ Units	
	(November) Monthly Test– Unit –IV (September)	

	27.12.2021 to 05.01.2022
	CIA / Model Examination -Unit-III(Second 1/2 Unit) –Unit-V- 2 ½ Units
Assignment	
	Assignment I –Unit –I and Unit –II (August)
	Assignment II – Unit –III and Unit – IV (September)
Quiz	
	Two Mark Quiz Test - Unit I – Unit – V (December)
Seminar	
	Unit –V (September and December)
Tutor Ward	
Meeting	Monthly Once

R.D.

PRINCIPAL

Principal A.D.M. College For Women Autonemous, Nagapattinam.

ODD SEMESTER 2021 - 2022

TEACHING PLAN

A. GENERAL INFORMATION

Name of the Faculty	:	Dr.K.G.Selvi
Department	:	Zoology
Programme	:	I B.Sc Chemistry- Allied Zoology
Programme Code	:	USZ
Name of the Paper	:	Biology of Invertebrates and Chordates
Lecture Hours	:	60 Hrs

B. ABOUT THE COURSE:

Course Objectives	Course Outcomes	Teaching
		Methodology
• To understood the	• Understood the	Power Point
Organization and .life history	Organization and .life	• E – Module
of Single cell Organism.	history of Single cell	• Chalk & Talk
• To acquired knowledge	Organism.	Method
on the characteristics and	•Acquired knowledge on the	• Lecture
life history of helminthes.	characteristics and life	Method
• To learn the	history of helminthes.	Discussion
organization, life cycle and	• Learn the organization, life	Method
adaptations of prawn, Mussel	cycle and adaptations of	Assignment
and Earthworm	prawn, Mussel and	Method,
• To study the internal	Earthworm	• Problem
anatomy of Pisces,	• Study the internal anatomy	

Amphibian and Reptiles.	of Pisces, Amphibian and	Solving
• To understand the	Reptiles.	• Method
morphology and anatomy of	• Understand the	• Seminar
Aves and Mammals	morphology and anatomy	Method
	of Aves and Mammals	

C. PLAN OF THE WORK:

Unit / Modules	Topic to be covered	Propose	Lectur	Practica	Remark
		d date	e Hrs	l Hrs	S
Unit I	Organisation	9.8.21	3		
Content- 9 hrs.	and life history	to			
Assessment-	• Phylum	31.8.21			
3 hrs.	Protozoa -				
Total - 12 hrs	Paramaecium.		3		
	• Phylum				
	Porifera -				
	Ascon sponge		3		
	Phylum Coelenterata				
	- Obelia				
Unit II	• Organisation and life	1.9.21 to			
Content- 9 hrs.	history	22.9.21	3		
Assessment-	• Phylum				
3 hrs.	Platyhelminthes -				
Total - 12 hrs	Taenia solium		3		
	• Phylum				
	Ashelminthes -		3		
	Ascaris				
	• Phylum Annelida -				

	Earthworm			
Unit III	Organisation	23.9.21	3	
Content- 9 hrs.	and life history	to		
Assessment-	• Phylum	18.10.21		
3 hrs.	Arthropoda -			
Total - 12 hrs	Tiger Prawn		3	
	• Phylum			
	Mollusca -			
	Freshwater		3	
	mussel			
	• Phylum			
	Echinodermata			
	- Star fish			
Unit IV	• Pisces – Shark –	20.10.21		
Content- 9 hrs.	External feature &	to	3	
Assessment-	Respiratory system	19.11.21		
3 hrs.				
Total - 12 hrs	• Amphibia – Frog –			
	External feature,			
	Excretory &		3	
	Circulatory system			
	• Reptilia – Calotes –			
	External feature &		3	
	Structure of Brain			
Unit V	Aves – Pigeon –	20.11.21	3	
Content- 9 hrs.	External feature ,	to	Ĵ	
Assessment-		24.12.21		
3 hrs.	Respiratory			
Total - 12 hrs	system & Flight		3	
_				

adaptation		
• Mammalia – Rabbit	3	
– Dentition,		
Digestive system		
and Urinogenital system		
system		

D. ACTIVITIES:

Activities Name	Details		
Test	Monthly Test- Unit-I (August)		
	Monthly Test - Unit-II (September)		
	CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2 ½ Units		
	(November)		
	Monthly Test– Unit –IV (September)		
	27.12.2021 to 05.01.2022		
	CIA / Model Examination -Unit-III(Second 1/2 Unit) –Unit-V- 2 ½ Units		
Assignment			
	Assignment I –Unit –I and Unit –II (August)		
Quiz	Assignment II – Unit –III and Unit – IV (September)		
Seminar	Two Mark Quiz Test - Unit I – Unit – V (December)		
	Unit –V (September and December)		
Tutor Ward	Monthly Once		
Meeting			

R. Dom PRINCIPAL

Principal A.D.M. College For Women Autonemous, Nagapattinam.

A. GENERAL INFORMATION

Name of the Faculty	:	Dr.K.G.Selvi
Department	:	Zoology
Programme	:	III B.Sc Zoology
Programme Code	:	USZ
Name of the Paper	:	Applied Entomology
Lecture Hours	:	90 Hrs

B. ABOUT THE COURSE:

Course Objectives	Course Outcomes	Teaching
		Methodology
• To understand the	Know about the steps	Power Point
classification and	required to do insect	• E – Module
working of insect	systematic and classify	• Chalk & Talk
systems	• insect pest using key	Method
• To understand their	characters.	• Lecture
adaptations to the	Understand morphology	Method
environment	of insect pest.	Discussion
• To look into some	• Apply the skill for	Method
commercial	various sustainable	Assignment
applications of	commercial production	Method,
entomology with	of	• Problem
• special reference to	• apiculture, sericulture	Solving
• beneficial insects,	and lac culture.	• Method
sericulture, insect	• Understandtheimpact of	• Seminar

pests and their	harmful insect pest in	Method
control, vector	agriculture.	
• borne diseases etc.	• Analyze and apply multi-	
• Skill to rear and mass	disciplinary approaches	
production of	related to integrated pest	
commercially	control	
important		

C. PLAN OF THE WORK:

Unit /	Topic to be covered	Propose	Lectur	Practica	Remark
Modules		d date	e Hrs	l Hrs	S
Unit I	Taxonomy and	9.8.21 to	5		
Content	Classification:	31.8.21			
- 15 hrs.	Classification and				
Assessment	key				
- 3 hrs.	• characters of				
Total -18hrs	important Orders		5		
	such as Coleoptera				
	(Rhinoceros beetle),.				
	• Lepidoptera (Plain				
	tiger butterfly),.		5		
	• Diptera (Aedes				
	mosquito),				
	Hemiptera(Bed bug),				
	• Hymenoptera				
	(Indian Honey Bee),				
	Orthoptera (
	Grasshopper) ,				
	Isoptera,(Termites).				

Unit II	• Biology of insects:	1.9.2 to	4	
Content	General organization	22.9.21		
- 15 hrs.	of a typical Insect -			
Assessment	• types of head;			
- 3 hrs.	Thorax – Abdomen –			
Total -18hrs	Antenna – Mouth			
	Parts			
	• -Legs -Wings - Sense			
	organs; Sound			
	producing organs.			
			4	
	• Structure of			
	Digestive system –			
	Circulatory system –			
	• Excretory system –		4	
	Respiratory system -			
	Nervous system –			
	Reproductive			
	system.		3	
	 Metamorphosis and 			
	types; Types of larvae			
	and pupae.			
	Role of endocrine			
	and			
	pheromones.			
Unit III	Commercial	23.9.21	5	
Content	• Commercial Entomology:	to		
- 15 hrs.	Apiculture- Biology	18.10.21		
Assessment	and lifehistory	10110121		
- 3 hrs.	of honeybees:			
Total -18hrs	Methods			

		ofbeekeeping –			
		Equipment and			
		tools-Apiary			
		management, Bee		5	
		products, Diseases of			
		honeybees.			
		• Sericulture-		5	
		Mulberry sericulture			
		- Non-Mulberry ,			
		sericulture.			
		• Lac culture:-			
		Propagation of lac			
		insects –Natural			
		enemies of lac			
		insects and their			
		management-Lac			
		extraction			
Unit IV	•	Harmful insects:Vector	20.10.21		
Content		borne diseases: Method	to	5	
- 15 hrs.		of transmission of	19.11.21		
Assessment		parasitic agents with			
- 3 hrs.		special reference to			
Total -18hrs		mosquitoes and			
		housefly.			
	•	Host – parasite		5	
		interaction with			
		examples.			
	•	Polyphagous insect			
	•	pests: Locusts, termites,		5	
		hairy caterpillars,			
		cutworms, grampod			
		bore.			
Unit V	•	Insect pests and their	20.11.21	5	

Content	Γ	control	to		
- 15 hrs.	•	Insects as crop pests:	24.12.21		
Assessment		Major pests of the			
- 3 hrs.		following crops and their			
Total -18hrs		life cycles.			
				5	
	•	Types ofinjuries and			
		nature of amage caused			
		to paddy (Brown pant			
		hopper), sugarcane			
		(Root borer),.			
				5	
	•	pulses (plume moth),			
		vegetables (brinjal-Shoot			
		and fruit borer), Coconut			
		(Red Palm Weevil)and			
		stored grain pests (Pulse			
		beetle).			

Activities Name	Details
Test	Monthly Test- Unit-I (August)
	Monthly Test - Unit-II (September)
	CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2 ½ Units
	(November)
	Monthly Test– Unit –IV (September)
	27.12.2021 to 05.01.2022
	CIA / Model Examination -Unit-III(Second 1/2 Unit) –Unit-V- 2 ½ Units
Assignment	
	Assignment I –Unit –I and Unit –II (August)
	Assignment II – Unit –III and Unit – IV (September)

Quiz	
	Two Mark Quiz Test - Unit I – Unit – V (December)
Seminar	
	Unit –V (September and December)
Tutor Ward	
Meeting	Monthly Once

R. Dom > r PRINCIPAL

Principal A.D.M. College For Women Autonomous, Nagapattinam.

A. GENERAL INFORMATION

Name of the Faculty	:	Dr.K.G.Selvi
Department	:	Zoology
Programme	:	II M.Sc Zoology
Programme Code	:	PSZ
Name of the Paper	:	Bioinformatics and Computer Application in
		Biology
Lecture Hours	:	90 Hrs

B. ABOUT THE COURSE:

Course Objectives	Course Outcomes	Teaching
		Methodology
	Understand the	Power Point
• To understand the	Biological databases	• E – Module
importance of bioinformatics	and its scope	• Chalk & Talk
in biology	Learn sequence	Method
• To familiar with application	alignment to	• Lecture
of bioinformatics tool	construct	Method
• To know the concept of	phylogenetic tree	Discussion
biostatistics	using of bioinformatic	Method
• To understand the	tools	• Assignment
applications of biostatistics in	Skill to predict	Method,
biology	protein structure	• Problem
• To obtain in depth knowledge	using RASMol	Solving
in computer and its	package.	• Method

application	• Understand the	• Seminar
	concept of computer	
	programming which	
	make it necessary	
	• to integrate	
	informatics when	
	solving biological	
	problems.	
	• Understand it has	
	become an important	
	focus for industry,	
	particularly in the	
	• post-genomic era.	

C. PLAN OF THE WORK:

Unit /	Topic to be covered	Propose	Lectur	Practica	Remark
Modules		d date	e Hrs	l Hrs	S
Unit I	Objectives of	9.8.21	5		
Content	Bioinformatics, kinds	to			
- 5hrs.	of data used, Data	31.8.21			
Assessment	integration, Data				
- 3 hrs.	analysis, Carriers in				
Total -18hrs	Bioinformatics,				
	Scope of				
	bioinformatics –				
	Useful				
	bioinformatics sites				
	– Bioinformatics in				
	Pharmaceutical				

	in du atur			1
	industry –		5	
	Bioinformatics			
	orientation in IT			
	industry.			
	Biological databases			
	-Tools for Searching		5	
	biological databases			
	– Sequence and			
	Structural databases			
	– Nucleotide			
	Sequence Databases			
	- NCBI, GENE BANK,			
	EMBL DDBJ			
	Protein Sequence			
	databases –			
	Swissprot, PIR –			
	Structural database			
	• (PDB, CATH, and			
	SCOP)			
Unit II	Sequence alignment	1.9.2 to	5	
Content	– Methods of pair	22.9.21		
- 5hrs.	wise alignment –			
Assessment	Algorithms-			
- 3 hrs.	Needleman &wunch			
Total -18hrs	algorithm – Smith			
	waterman algorithm			
	Amino acid substitution		5	
	matrices – PAM –			
	BLOSUM- Multiple			
	sequence alignment			
	(MSA) – Clustal W.			
	Phylogenetic			
	analysis: Concept of		5	

	trees, Methods of			
	Phylogenetic			
	• analysis - Distance			
	matrix methods,			
	Characters based			
	methods- Steps on			
	Constructing			
	alignments and			
	phylogenies			
Unit III	Conceptual models	23.9.21	5	
Content	of protein structure	to		
- 5hrs.	- Predicting Protein	18.10.21		
Assessment	structure and			
- 3 hrs.	function from			
Total -18hrs	sequence.			
	• Determination of			
	structure – feature		5	
	detection –			
	secondary structure			
	prediction .			
	• Predicting 3 D			
	structure - the			
	relationship of		5	
	protein three –			
	didimension			
	structure to protein			
	function.			
Unit IV	Introduction to	20.10.21	5	
Content	computer: History of	to		
- 5hrs.	computer –	19.11.21		
Assessment	components of a			
- 3 hrs.	computer .			
	*			

Total -18hrs	Block diagram –		5	
	input devices –			
	output devices-			
	classification of			
	computer –		5	
	_		5	
	computer virus.			
	Computer			
	Programming			
	concepts:			
	Algorithms,			
	Flowchart.			
	Computer operating			
	system: DOS and			
	WINDOWS			
Unit V	MS office	20.11.21	5	
Content	application: Word	to		
- 5hrs.	Processor : MS -	24.12.21		
Assessment	Word			
- 3 hrs.	• ii)Data Processor :			
Total -18hrs	MS - Excel		5	
	• iii)Presentation : MS			
	Power point			
	Computer			
	application: Office			
	automation: E-mail		5	
	and Internet.			
	Applications of			
	statistical packages:			
	SPSS.			

Monthly Test- Unit-I (August) Monthly Test - Unit-II (September)					
Monthly Test - Unit-II (September)					
CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2 ½ Units					
lovember)					
Monthly Test– Unit –IV (September)					
27.12.2021 to 05.01.2022					
CIA / Model Examination -Unit-III(Second 1/2 Unit) –Unit-V- 2 ½ Units					
Assignment I –Unit –I and Unit –II (August)					
Assignment II – Unit –III and Unit – IV (September)					
Гwo Mark Quiz Test - Unit I – Unit – V (December)					
Unit –V (September and December)					
Monthly Once					

R. Dom PRINCIPAL

Principal A.D.M. College For Women Autonomous, Nagapattinam.

A. GENERAL INFORMATION

Name of the Faculty	:	Dr. T.SUMATHI
Department	:	Zoology
Programme	:	M.Sc
Programme Code	:	PSZ
Name of the Paper	:	RESEARCH METHODOLOGY
Lecture Hours	:	90 Hrs

B. <u>ABOUT THE COURSE:</u>

Course Objectives	Course Outcomes	Teaching Methodology
Objectives to	Students will be able to	Methodology adopted
		are
 This study is being 	• Understand the	
undertaken within	basic concept of	• Chalk & Talk method
a framework of a	research.	• Power Point ,
set of approaches	• Learn the	• LCD
and uses	importance and	• e – Module
procedures,	sources of	• Lecture method
methods and	literature and	Discussion
techniques that	hypothesis testing	• Assignment ,
have been tested	concept	• Drawing mode method
for their validity	• Efficient in	• Seminar
and reliability.	document	
 Biostatistics 	preparation,	

.1 1	1 1	
provides a clear	research article	
specification of the	writing and project	
hypothesis to be	proposal writing	
tested.	• Learn data	
 Know the basic 	collection and	
concept of	descriptive	
biostatistics	statistics	
• 4. Understand the	• Ability to use the	
applications of	applications of	
statistic in	biostatistics to	
biological data 5.	conduct research in	
Obtain in depth	the area of biology.	
knowledge in data		
collection		

C. <u>PLAN OF THE WORK:</u>

Unit /	Topic to be covered	Proposed	Lecture	Practical	Remarks
Modules		date	Hrs	Hrs	
Unit I	• Basic concepts of		4 Hrs	-	-
Total 18 Hrs	research	09.08.2021 to	3 Hrs		
Test-1Hr	• Types of Research	17.08.2021	4 Hrs		
Assignment-	• Empirical.		3 Hrs		
1Hr	Research Methods				
Seminar-1Hr	versus Methodology				
Quiz-1Hr					
Unit II	• Importance of		4Hrs	-	-
Total 18 Hrs	literature	18.08.2021 to			
Test-1Hr	reviewing	14.09.2021	4Hrs		
Assignment-	• Identifying gap				
1Hr	areas from		3Hrs		

Seminar-1Hr	literature review				
	• Hypothesis – Null		4Hrs		
	and Alternate				
	 references, tables 				
	and figures,				
	bibliography.				
Unit III	Research and		3 Hrs	-	-
Total 18 Hrs	Documentation	12.10.2021 to	4 Hrs		
Test-1Hr	• Abstracts and research	03.10.2021			
Assignment-	papers – Preparation		3Hrs		
1Hr	 peer reviewed 		4 Hrs		
Seminar-1Hr	journals- citation index				
Quiz-1Hr	– h-index - impact				
	factors				
	 Project Proposal 				
	writing, Research				
	articles, Oral				
	Communications				
Unit IV	• data in Biostatistics		4Hrs	-	-
Total 18 Hrs	frequency distribution,	08.10.2021 to			
Test-1Hr	handling of data.	23.10.2021	3Hrs		
Assignment-	 standard deviation, 				
1Hr	coefficient of				
Seminar-1Hr	variations, probability		3Hrs		
Quiz-1Hr	distribution				
	• arithmetic mean, other		4Hrs		
	means, median, mode				
	 hypothesis testing. 				
Unit V	• Student's t, confidence			-	-
Total 18 Hrs	limit, analysis of	13.11.2021 to	4Hrs		
Test-1Hr	variance	28.11.2021	2Hrs		
Assignment-	• two way analysis of		4 Hrs		
1Hr			4Hrs		

Seminar-1Hr	variance, assumptions,		
Quiz-1Hr	regression, correlation.		
	Multivariate analysis		
	Principal components		
	using correlation		
	matrix,		

Activities Name	Details
Test	Monthly Test- Unit-I (August)
	Monthly Test - Unit-II (September)
	CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2 ½ Units
	(November)
	Monthly Test– Unit –IV (September)
	27.12.2021 to 05.01.2022
	CIA / Model Examination -Unit-III(Second 1/2 Unit) –Unit-V- 2 ½ Units
Assignment	
	Assignment I –Unit –I and Unit –II (August)
	Assignment II – Unit –III and Unit – IV (September)
Quiz	
	Two Mark Quiz Test - Unit I – Unit – V (December)
Seminar	
	Unit –V (September and December)
Tutor Ward	
Meeting	Monthly Once
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R.D. PRINCIPAL

Principal A.D.M. College For Women Autonemous, Nagapattinam.

A. GENERAL INFORMATION

Name of the Faculty	:	Dr. T.SUMATHI
Department	:	Zoology
Programme	:	B.Sc
Programme Code	:	USZ
Name of the Paper	:	VERMICULTURE
Lecture Hours	:	75Hrs (5 UNITS)

B. <u>ABOUT THE COURSE:</u>

Course Objectives	Course Objectives Course Outcomes	
Course	• Learners will be able to	Methodology
Objectives:		adopted are
	• Understand the	
• To study about	classification and	Power Point
the History and	diversity of earthworm	• e – Module
scope of	• Know the morphology	• Chalk & Talk Method
Microbiology	and lifecycle of	• Lecture Method
• To learn about	earthworm.	Discussion Method
microbes in food	• Aware of the role of	• Study Assignment
• To acquire the	earthworm in sustainable	Method,
knowledge of	agriculture and its feeding	Problem Solving
diseases caused	habits.	Method
by the microbes	• Apply the advanced	Seminar Method
	techniques in organic	
	wastes.	

Understand different	
methods of	
vermincomposting.	

C. PLAN OF THE WORK:

Unit / Modules		Topic to be covered	Proposed	Lecture	Practical	Remarks
			date	Hrs	Hrs	
Unit I	•	History , Scope and	10.08.2021	4Hrs	-	-
Total 15Hrs		classification	to			
	•	Earth worms –	17.10.2021	3Hrs		
Test-1Hr		Outline Classification				
Assignment-1Hr		-		4Hrs		
Seminar-1Hr	•	Features of				
Quiz-1Hr		Eudrilidae –				
		Megascolidae				
	•	Lumbricidae –				
		Ecological				
		Classification –				
	•	Epigeic – Anecie and				
		Endogeic forms –				
		Humus Feeders –				
		Humus Formers.				
Unit II	•	General body	19.10.2021	3Hrs	-	-
Total 15 Hrs		structures of	to			
		earthworms.	30.11.2021	4Hrs		
Test-1Hr	•	Morphology – Coelom				
Assignment-1Hr		– Body wall				
Seminar-1Hr	•	LocomotionExcretion-		4Hrs		
Quiz-1Hr		Respiration-				
		Digestive, Circulatory,				
		Nervous and				
		Reproductive				

	1	systems- Cocoon				
		formation				
Unit III			01.12.2021	2Hrs	_	_
	•	Food and Feeding of earthworm –	to	21113	_	-
Total 15 Hrs			16.12.2021	3Hrs		
	•	Humus feeders-	10.12.2021	5115		
m . 411		Humus formers-		211		
Test-1Hr		Saprophages		3Hrs		
0	•	DetritivoresGeophage				
Seminar-1Hr		s Role of earthworms		3Hrs		
Quiz-1Hr		in sustainable				
		agriculture –				
	•	organic farming –				
		Earthworm activities-				
	•	soil fertility and				
		texture- soil aeration-				
		water percolation-				
		decomposition and				
		moisture.				
Unit IV	•	Organic wastes:	01.12.2021	2Hrs		
Total 15 Hrs		Municipal,	to			
		Agricultural and other	16.12.2021	3Hrs		
Test-1Hr		wastes				
Assignment-1Hr	•	vermiwash-		3Hrs		
Seminar-1Hr		preparation of pre-				
Quiz-1Hr		digested materials.		2Hrs		
	•	Methods of				
		harvesting, packing				
		and storage.				
		C C				
Unit V	-		17.12.2021	3Hrs		
	•	Composting –	to			
Total 15 Hrs		Vermicomposting –	03.01.2022	3Hrs		
	•	Methods – Pit, Heap	-	_		
	Ĺ	incuious inclinup				

Test-1Hr		and Tank. Advantages		
Assignment-1Hr	•	– Products –	2 Hrs	
Seminar-1Hr		Vermicompost and		
Quiz-1Hr		Verrmiwash –	3 Hrs	
	•	Earthworms in waste		
		water management.		
		Economy of		
		Vermiculture. Cost		
		benefits analysis.		

D. <u>ACTIVITIES:</u>

Activities Name	Details
Test	Monthly Test- Unit-I (August)
	Monthly Test - Unit-II (September)
	CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2 ½ Units
	(November)
	Monthly Test– Unit –IV (September)
	27.12.2021 to 05.01.2022
	CIA / Model Examination -Unit-III(Second 1/2 Unit) –Unit-V- 2 ½
Assignment	Units
	Assignment I –Unit –I and Unit –II (August)
	Assignment II – Unit –III and Unit – IV (September)
Quiz	
	Two Mark Quiz Test - Unit I – Unit – V (December)
Seminar	
	Unit –V (September and December)
Tutor Ward Meeting	Monthly Once

R. Dom PRINCIPAL

Principal A.D.M. College For Women Autonomous, Nagapattinam.

E. GENERAL INFORMATION

Name of the Faculty	:	Dr. T.SUMATHI
Department	:	Zoology
Programme	:	B.Sc
Programme Code	:	USZ
Name of the Paper	:	NME I - PUBLIC HEALTH AND HYGINE
Lecture Hours	:	75 Hrs (5 UNITS)

F. <u>ABOUT THE COURSE:</u>

Course Objectives	Course Outcomes	Teaching Methodology
Course Objectives:	Learners will be able to	Methodology
		adopted are
• 1. To enlighten the	• Understand the	
non- major	classification and	Power Point
elective students	diversity of	• e – Module
about the general	earthworm	• Chalk & Talk Method
knowledge on	• Know the	• Lecture Method
their health and	morphology and	• Discussion Method
hygiene.	lifecycle of	• Study Assignment
• To create general	earthworm.	Method,
health awareness	• Aware of the role of	Problem Solving
the hazardous	earthworm in	Method
impacts and	sustainable	• Seminar Method
remedy.	agriculture and its	
• Understand the	feeding habits.	

communicable	• Apply the advanced
and non	techniques in organic
communicable	wastes.
disease and its	• Understand
prevention.	different methods of
• Understand the	vermincomposting.
different	
environmental	
pollution and its	
hazards.	
• Learn WHO	
programme of	
public health and	
hazards.	

G. PLAN OF THE WORK:

Unit /	Topic to be covered	Proposed	Lecture	Practical	Remarks
Modules		date	Hrs	Hrs	
Unit I	Scope of Public	10.08.2021	3Hrs	-	-
	health and Hygiene –	to			
Total 15 Hrs	• nutrition and health	17.10.2021	4Hrs		
	– classification of				
Test-1Hr	foods		4Hrs		
Assignment-	 – Nutritional 				
1Hr	deficiency diseases-				
Seminar-1Hr	• Vitamin deficiency				
Quiz-1Hr	diseases.				
Unit II	• Environment and Health	19.10.2021	4Hrs	-	-
Total 15 Hrs	hazards:	to			
	Environmental	30.11.2021	4Hrs		
Test-1Hr	degradation				
Assignment-	• – Pollution – Air, Water,				

1Hr	Land and Noise-		3Hrs		
Seminar-1Hr	associated health				
Quiz-1Hr	hazards				
	•				
Unit III	Communicable diseases	01.12.2021	4 Hrs	-	-
Total 15 Hrs	and their preventive and	to			
	control measures.	16.12.2021	3Hrs		
Test-1Hr	• Measles, Hepatitis, HIV				
Assignment-	/AIDS,Cholera,		4 Hrs		
1Hr	• Malaria and Filariasis				
Seminar-1Hr					
Quiz-1Hr					
Unit IV	Non-Communicable	01.12.2021	4 Hrs		
Total 15 Hrs	diseases and their	to			
	preventive measures.	16.12.2021	3Hrs		
Test-1Hr	• .Genetic diseases,				
Assignment-	Cancer, Cardio vascular		4Hrs		
1Hr	diseases				
Seminar-1Hr	• , Chronic respiratory				
Quiz-1Hr	disease, Diabetes,				
	Epilepsy				
Unit V		17.12.2021	4 Hrs		
	Health Education in	to			
Total 15 Hrs	India – WHO	03.01.2022			
	Programmes		3Hrs		
Test-1Hr	• – Government and				
Assignment-	Voluntary Organizations				
1Hr	and their health services		4Hrs		
Seminar-1Hr	-				
Quiz-1Hr	• Precautions, First Aid				
	and awareness on				
	epidemic/sporadic				
	diseases				

Activities Name	Details
Test	Monthly Test- Unit-I (August)
	Monthly Test - Unit-II (September)
	CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2 ½
	Units (November)
	Monthly Test– Unit –IV (September)
	27.12.2021 to 05.01.2022
	CIA / Model Examination -Unit-III(Second 1/2 Unit) –Unit-V- 2
Assignment	1/2 Units
	Assignment I –Unit –I and Unit –II (August)
	Assignment II – Unit –III and Unit – IV (September)
Quiz	Two Mark Quiz Test - Unit I – Unit – V (December)
	Unit –V (September and December)
Seminar	Monthly Once
Tutor Ward Meeting	

R. Dom C

PRINCIPAL

Principal A.D.M. College For Women Autonomous, Nagapattinam.

A. GENERAL INFORMATION

Name of the Faculty	:	Dr. T.SUMATHI
Department	:	Zoology
Programme	:	M.Sc
Programme Code	:	PSZ
Name of the Paper	:	Animal Phylogeny and Biodiversity
Lecture Hours	:	90 Hrs

B. <u>ABOUT THE COURSE:</u>

Course Objectives	Course Outcomes	Teaching Methodology
Objectives to	Students will be able to	Methodology adopted
		are
Objectives:	• Understand and	
• To give a thorough	study of the Origin	Chalk & Talk method
understanding in	and phylogeny of	• Power Point ,
the origin of life in	Invertebrates and	• LCD
Invertebrate	Chordates	• e – Module
animals. To acquire	• Understand the	• Lecture method
an in-depth	primitive forms of	Discussion
knowledge on the	invertebrates and	• Assignment ,
paleontology in	vertebrates	• Drawing mode method
animal world.	distribution	• Seminar
• To develop an	• Understand the	
holistic	status and mode of	
appreciation on the	living of different	

phylogeny,	forms of animals.
relationships	Learn the animal
 adaptations in 	phylogeny and its
animals To	evolution
understand	Students
theories of primate	understand the
characteristic	biodiversity of
features,	Invertebrates and
classification and	Chordates
affinities.	
• Learn the animal	
diversity which is	
an essential topic	
for biologists to	
know the	
distribution, and	
phylogeny of	
animal	

C. <u>PLAN OF THE WORK:</u>

Unit /	Topic to be covered	Proposed	Lecture	Practical	Remarks
Modules		date	Hrs	Hrs	
Unit I	Phylogeny of		4 Hrs	-	-
	Invertebrates:	09.08.2021			
Total 18 Hrs	Biogenetic Law –	to			
	Gastrea Theory –	17.08.2021			
Test-1Hr	Origin of Matazova.				
Assignment-	• Origin of Bilateria:		3 Hrs		
1Hr	Trochophore				
Seminar-1Hr	theory, syncytial,				
Quiz-1Hr	• Planuloid theory,				

	Ctenophore theory		4 Hrs		
	– Origin and		1 1115		
	 Phylogeny of 				
	• Annelida: Corn or				
			3Hrs		
	Fission theory		5015		
	• – Origin of				
	Arthropoda –				
	Onychophora –				
	Trilobita –				
	Eurypterida –				
	Xiphosura				
Unit II	Phylogeny of		4 Hrs	-	-
	Invertebrates:	18.08.2021			
Total 18 Hrs	• Origin of Mollusca –	to	3Hrs		
	Phylogeny of	14.09.2021			
Test-1Hr	Mollusca :Neopilina		3 Hrs		
Assignment-	, Nautiloids,				
1Hr	Ammonoids and		4 Hrs		
Seminar-1Hr	Belemnites. –				
Quiz-1Hr	Origin of				
	Echinodermata:				
	Coelenterate				
	ancestry.				
	• , Annelidan				
	ancestry,				
	Laphophorate				
	ancestry,				
Unit III	Phylogeny of		3 Hrs	-	-
	Vertebrates: Origin of	12.10.2021	3Hrs		
Total 18 Hrs	chordates.	to			
	• Theories of origin of	03.10.2021	4 Hrs		
Test-1Hr	Chordates.		4 Hrs		
Assignment-	Ostracoderm:				

1Hr	characteristic features,				
Seminar-1Hr	classification and				
Quiz-1Hr	affinities.				
	• Origin of vertebrates –				
	Theories for the origin				
	of vertebrates				
	.Placoderms:				
Unit IV	Phylogeny of		4 Hrs	-	-
	Vertebrates: Origin of	08.10.2021			
Total 18 Hrs	Reptilia	to	3 Hrs		
	• : connecting link	23.10.2021			
Test-1Hr	between amphibian				
Assignment-	and reptilian,		4Hrs		
1Hr	Evolution of reptilian,				
Seminar-1Hr	Golden Age of reptiles,		3Hrs		
Quiz-1Hr	Ratitae.				
	• Origin of Birds: Fossil				
	birdArchaeopteryx,				
	• Origin of flight in birds.				
	Prototheria and				
	Metatheria:				
	characteristic features,				
	classification and				
	affinities.				
Unit V	Biodiversity: definition			-	-
	– types – genetic,	13.11.2021	4 Hrs		
Total 18 Hrs	species and ecosystem	to	3 Hrs		
	diversity.	28.11.2021	4 Hrs		
Test-1Hr	• Values and uses of		3Hrs		
Assignment-	biodiversity.				
1Hr	Biodiversity				
Seminar-1Hr	measurements, Mega				
Quiz-1Hr	diversity centres. Loss				

of biodiversity.
Conservation of
biodiversity : in situ
(afforestation, social
forestry, agro forestry.
Biosphere reserves,
national parks and
sanctuaries), ex situ
(Cryopreservation,
gene banks, sperm
banks.

Activities Name	Details		
Test	Monthly Test- Unit-I (August)		
	Monthly Test - Unit-II (September)		
	CIA / Mid Semester – Unit-I - Unit-III (First 1/2 Unit)- 2 ½ Units		
	(November)		
	Monthly Test– Unit –IV (September)		
	27.12.2021 to 05.01.2022		
	CIA / Model Examination -Unit-III(Second 1/2 Unit) –Unit-V- 2		
Assignment	1/2 Units		
	Assignment I –Unit –I and Unit –II (August)		
Quiz	Assignment II – Unit –III and Unit – IV (September)		
Seminar	Two Mark Quiz Test - Unit I – Unit – V (December)		
	Unit –V (September and December)		
Tutor Ward Meeting	Monthly Once		

R. Don 0 PRINCIPAL

Principal A.D.M. College For Women Autonomous, Nagapattinam.