



## Nallamuthu Gounder Mahalingam College

(Autonomous)  
Re-Accredited by NAAC and ISO 9001:2015 Certified Institution  
Affiliated to Bharathiar University, Coimbatore  
Pollachi – 642 001



INTERNAL QUALITY ASSURANCE CELL (IQAC)

### Department of Zoology

### Board of Studies 2020- 2021

### Percentage of the Syllabus revision on 22-02-2020

UG (2020-2023 BATCH)

S. No	Year	Semester	Paper Code	Paper Title	Changes		% of modifications	Reason for change
					Removed (if any)	Added (if any)		
1.	2020-2023	I	20UZY101	Core Paper –I Nonchordata	Unit I Type study- <i>Plasmodium</i> Economic importance of Protozoa Unit II Coral reefs-Types and Formation Unit III Phylum Aschelminthes Economic importance of Aschelminthes Phylum Annelida Type study –Earthworm Unit IV Peripatus as a Connecting Link.	Unit I Type study- <i>Paramecium</i> Protozoa in Human Diseases Unit II Polymorphism in coelenterates Unit- III Phylum Annelida Type study Neries Metamerism in Annelids	35%	Suggested by subject expert
2.	2020-2023	II	20UZY202	Core Paper –II Chordata	Unit I Pisces Urinogenital system Unit II Class Amphibia-Frog Cranial nerves	Unit I Pisces Placoid scales Excretory system Reproductive system	20%	Suggested by faculty


					Origin of Amphibia Unit III Urinogenital system Unit IV Aves- Flightless birds	Unit II Class Amphibia-Frog Heart Parental care in frogs Unit III Excretory system Reproductive system Unit IV Aves- Flight Adaptation		
3.	2020-2023	II	20UZY203	Major Practical - I (Non-Semester Pattern) Nonchordata & Chordata	Spotters A. Earthworm B. Human Brain C. Sponge gemmules D. Emu	Spotters A. <i>Leucosolenia</i> Neries Pila B.L.S. of Leucosolenia Placoid scale Rabbit Brain C. Archaeopteryx Salamader Bat D. Sea horse, Platypus, Sepia	15%	Suggested by Subject expert
4.	2020-2023	I	20UBY1A 1	Ancillary Zoology Paper I Nonchordata and Chordata	Unit III Lamellidens - Circulatory system Unit IV Migration of fishes Unit V Calotes-Brain Frog- Reproductive system Mammalia – Rabbit excretory system	Unit V Digestive system of pigeon	10%	Suggested by faculty
5.	2020-2023	II	20UBY2A 2	Ancillary Zoology Paper –II Economic Zoology	Unit – V Arthropod vectors and Human disease	Unit -III Scope of sericulture Vegetative propagation Unit -IV Scope of poultry Unit – V Vermiculture	20%	Suggested by students
6.	2020-2023	II	20UBY2A 3	Ancillary Zoology Practical (Non-Semester Pattern) Paper I & II	Spotters <i>Taenia solium</i> Pigeon-Quill feather Snake – Poison apparatus Foot and mouth disease – virus, Bird flu	Obelia colony Leucosolenia Flight muscles Bat Peripatus, Silk gland, Octopus	5%	Suggested by Faculty

7.	2020-2023	III	20UZY304	<b>Core Paper –IV</b> Cell Biology	<b>Unit I</b> 1.HIV virus <b>Unit II</b> 2.Cytoplasmic matrix <b>Unit III</b> 3.mDNA 4.Protein synthesis components	<b>Unit IV</b> 1.Centrosome – Structure and function. 2.Types of chromosome	10%	Suggested by subject expert
8.	2020-2023	III	20UZY3N1	<b>Non- Major Elective (NME)</b> Public Health and Hygiene	<b>Unit IV</b> Malaria, Filariasis <b>Unit V</b> Global health council	<b>Unit I</b> Dynamics of Disease Transmission-Malaria <b>Unit IV</b> Influenza , Chicken pox	10%	Suggested by subject expert
9	2020-2023	III	20UZY3N2	<b>Non- Major Elective (NME)</b> Ornamental Fish Culture	Nil	Nil	0%	-
10.	2020-2023	IV	20UZY405	<b>Core Paper –V</b> Genetics	<b>Unit II</b> 1. Interference and coincidence 2. XX-XO type- Grasshopper 3. Bridge's genic balance theory <b>Unit III</b> 4. Eye colour in drosophila <b>Unit V</b> 5. Bacteriophage infection 6. Biochemical evidences in DNA genetic material 7. Molecular basis of gene mutation Population genetics	<b>Unit IV</b> 2. Euphenics <b>Unit V</b> 3. Genetic counseling	20%	Suggested by Alumni and Faculty
11.	2020-2023	IV	20UZY406	<b>Major Practical – II</b> (Non-Semester Pattern) Cell biology & Genetics	<b>Spotters :</b> <b>Cell Biology</b> 1. Cell cycle 2. Cancer cell <b>Genetics</b> 3. Pedigree analysis	<b>Spotters :</b> <b>Cell Biology</b> 1. Polytene chromosome	5%	Suggested by subject expert
12.	2020-2023	IV	20UZY4N3	<b>Non-Major Elective (NME)</b> Food and Nutrition	Nil	Nil	0	-

13.	2020-2023	IV	20UZY4N4	<b>Non-Major Elective (NME)</b> Apiculture (NME)	<b>Unit -II</b> <i>Apis mellifera</i>	<b>Unit- II</b> Relationship between plants and bee- Plant as habitat- symbiosis-pollination	5%	suggested by subject expert
14.	2020-2023	V	20UZY 507	<b>Core Paper – VII</b> Developmental Biology	<b>Unit- I</b> Definition-Ontogeny-Phylogeny <b>Unit-III</b> Comparison of the cleavage and gastrulation of frog and chick – <b>Unit-IV</b> Nuclear transplantation types- techniques	<b>Unit-I</b> Introduction to developmental biology	10%	Suggested by subject expert
15.	2020-2023	V	20UZY508	<b>Core Paper – VIII</b> Biotechnology	<b>Unit I</b> : Gene map lambda DNA <b>Unit III</b> Monoclonal antibody Retroviral and embryonic methods <b>Unit V</b> : Biochips Possible dangers of GEO Implementation of biosafety guidelines	<b>Unit III.</b> Biolistics (SS) <b>Unit IV:</b> Scope and application of nano biotechnology	10%	Suggested by Alumni
16.			20UZY509	<b>Core Paper – IX</b> Biostatistics& Biophysics	<b>Unit II</b> 1. Merits and demerits <b>Unit III</b> 2. Null hypothesis 3. Probability <b>Unit IV</b> 4. Mechanism of Bioluminescence <b>Unit V</b> 5. Spectrophotometer	<b>Unit II</b> 1. Mean deviation -Measures of dispersion <b>Unit III</b> 2.Student t test	5%	Suggested by Faculty
17.	2020-2023	V	20UZY510	<b>Core Paper – X</b> Biochemistry and Bioinformatics	<b>Unit -I</b> 1.Hexoses 2.Nonreducing sugar and reducing sugar 3.Heparin 4.Starch 5.Wax 6.Glycolipids 7.Fattyacid and cholesterol	-	20%	Suggested by Alumni
18.	2020-2023	V	20UZY 5E1	<b>Core Elective Paper – I</b> Medical Laboratory Techniques	<b>Unit-I</b> Automatic analyzer <b>Unit-V</b> Venereal Disease	<b>Unit-I</b> Urinometer, Albumino meter <b>Unit-V</b> Gonorrhoea Disease	15%	Suggested by subject expert

19	2020-2023	V	20UZY 5E2	<b>Core Elective Paper – II</b> Poultry Science and Management Technology	Nil	Nil	0%	-
20.	2020-2023	VI	20UZY611	<b>Core Paper –XI</b> Animal Physiology and Endocrinology	<b>Unit-III</b> <b>Sexual cycle in human:</b> Puberty, Spermiation, Ovulation, Menstrual cycle Pregnancy and Parturition.	-	10%	Suggested by the Faculty
21.	2020-2023	VI	20UZY612	<b>Core Paper – XII</b> Ecology & Evolution	-	-	0%	-
22.	2020-2023	VI	20UZY613	<b>Core Paper – XIII</b> Microbiology and Immunology	<b>Unit II</b> Bacteriophages _Life cycle Lytic and Lysogenic Life cycle	<b>Unit II</b> Structure of Bacteriophages  <b>Unit III</b> Biochemical changes of Food Spoilage <b>Unit –V</b> Types of tumor -, Causes of tumor –factors involved in tumor immunity	10%	Suggested by subject expert
23.	2020-2023	VI	20UZY6E3	<b>Core Elective Paper-III</b> Sericulture	<b>Unit I.</b> 1. Central and state silkboard functions	<b>Unit III</b> 1. Bed cleaning and its methods <b>Unit IV</b> 2. Chawki rearing in india <b>Unit V</b> 3. Indian uzi fly	10%	Suggested by faculty
24.	2020-2023	VI	20UZY6E4	<b>Core Elective Paper-IV</b> Insect Pest Management	Nil	Nil	0%	-
25.	2020-2023	VI	20UZY6E5	<b>Core Elective Paper-III</b> Aquaculture	-	-	0%	-
26.	2020-2023	VI	20UZY614	<b>Major Practical – III</b> (Non-Semester Pattern) Developmental Biology, Animal Physiology & Endocrinology,	Preparation of haemincrystals Frog yolk plug Chick egg Mammalian heart Sahli's heamometer	Estimation of haemoglobin by using haemoglobinometer Estimation of Erythrocyte Sedimentatio rate in human Estimation of glucose using	25%	Suggested by Students

				Biostatistics & Biophysics, Bioinformatics & Biochemistry & MLT	BP apparatus PH meter Ultracentrifuge Structure of sucrose Structure of starch	digital method Frog- Blastula Placenta of sheep Human foetus BLAST		
27.	2020- 2023	VI	20UZY 615	MAJOR ZOOLOGY PRACTICAL - IV (Ecology, Evolution, Biotechnology, Microbiology, Sericulture and Aquaculture)	SPOTTERS Sacculina on Crab Coccyx Peppered moth	SPOTTERS Sucker fish Giraffe Lung fish Silk gland Pebrine Lernaeasis Live feed-Daphnia	10%	Suggested by faculty
28.	2020- 2023	VI	20UZY6S3	Skill Based Elective (SBE) Vermiculture	Unit III Diseases and Predators of Earthworm control measures Unit IV Biomass Nutrient content of Soil and Biomass Unit V Nutrient value of vermicompost	Unit I Economic importance of Earthworm Unit III Collection of earth worms, Methods of vermicomposting Unit IV Indoor vermicomposting Precautions need for vermicomposting Nutrient content of vermicompost	20%	Suggested by subject expert
29.	2020- 2023	VI	20UZY 6S4	Skill Based Elective (SBE) Biopharmaceuticals (SBE)	Unit V Quality assurance and quality control Fundamental of quality assurance, benefits, structure of quality management, documentation, quality assurance in manufacturing	-	0	-

  
Signature of the BoS Chairman

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Principal  
PRINCIPAL  
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**Department of Zoology**  
**Board of Studies 2020- 2021**

**New papers (Courses) introduced**

S.No	Year	Sem	Paper Code	Paper Title	Changes		% of modification	Reason for Introduction
					Removed (if any)	Added (if any)		
1	2020-2023	VI	20UZY6E6	Core Elective Paper – VI Wildlife Conservation	Dairy farming and management Technology	Wildlife Conservation	100%	Suggested by Alumni

  
Signature of the BoS Chairman

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Principal

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