

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: Zoology

Name of the Teacher: D. S. Binu Lakshmanan

Year 2021 - 2022

Title of the Paper: Biophysics & Biochemistry

Subject Code: 20.PZ.0309

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From: 9.08.2021 To: 11.10.2021	<u>Unit III</u> <u>Histological techniques</u> - Preparation of sample, serial sections, histochemical staining techniques, Immunological techniques - RIA, ELISA & Flow cytometry	15 hrs	→	NIL	<u>[Signature]</u>	<u>[Signature]</u>
II From: 12.10.2021 To: 24.12.2021	<u>Unit IV</u> <u>Chromatography</u> Paper column, HPLC, Electrophoresis - Paper, agarose, PAGE & Southern, Northern & Western blotting	15 hrs	→	NIL	<u>[Signature]</u>	<u>[Signature]</u>

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: Zoology Name of the Teacher: Mrs. S. Binukumar Year 2021 - 2022
 Title of the Paper: Ecology Subject Code: 1910 ZD 504 Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From : 9.08.2021 To : 11.10.2021	<u>Unit I</u> <u>Abiotic factors of the environment - Temperature, light, oxygen, carbon dioxide, Radiation, and biological mutation.</u> <u>Biotic factors of the environment - Commensalism, Symbiosis and Mutualism, Parasitism.</u>	15 hrs	-	NIL	<u>[Signature]</u>	<u>[Signature]</u>
II From : 12.10.2021 To : 24.12.2021	<u>Unit II</u> <u>Ecosystem.</u> <u>Components of an ecosystem, Ponds as an example of ecosystem - Food chain - Food web.</u> <u>Ecological pyramid & energy flow</u>	15 hrs	-	NIL	<u>[Signature]</u>	<u>[Signature]</u>

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 2

ACADEMIC PLANNING

Department: Zoology

Name of the Teacher: Dr. S. Binu Kureddy

Year 2021-2022

Title of the Paper: Cell and Molecular Biology

Subject Code: 211VZ0303

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
I	<u>unit 2</u> <u>cell organelles & functions</u> Structure and functions of Plasma membrane, lysosomes, Golgi bodies & Ribosomes	15 hrs	-	<u>NIL</u>	<u>[Signature]</u>	<u>[Signature]</u>
II	<u>unit 5</u> <u>Structure & functions of DNA & RNA</u> Nucleic acids - Structure & functions of DNA & RNA, DNA replication, Protein synthesis - cell aging & cancer	15 hrs	-	<u>NIL</u>	<u>[Signature]</u>	<u>[Signature]</u>

Department: Zoology

Title of the Paper: Cell and Molecular Biology

ACADEMIC PLANNING

Department: Zoology Name of the Teacher: D. S. Prakash Kumar Year 2021 - 2022

Title of the Paper: M.Sc. Environmental Biology & Toxicology Subject Code: 21PZ04E2 Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From: 21.02.2022 To: 11.04.2022	<u>Unit IV Environmental Quality Awareness</u> <u>Indicators of the environment</u> <u>Education & Awareness, Environmental</u> <u>and Environmental Impact Assessment</u> <u>(EIA), Environmental Management and</u> <u>bio remediation.</u>	15 hrs	-	Nil	<i>[Signature]</i>	<i>[Signature]</i>
II From: 25.04.2022 To: 11.06.2022	<u>Unit V Toxicology</u> <u>Scope & Significance, Classification of Toxic</u> <u>Substances, Absorption & Excretion of Toxicants</u> <u>Toxicity - Mode of action of poisons, Toxicity</u> <u>Acute & Chronic toxicity, Toxicological testing methods</u> <u>Valuation of toxicity in organisms - L50 in aquatic</u> <u>organisms, L50 in terrestrial organisms, Environmental</u> <u>auditing, system planning, Sustainable development</u> <u>Physiology regulation, Bioethics, Environmental</u> <u>act.</u>	15 hrs	-	Nil	<i>[Signature]</i>	<i>[Signature]</i>

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29

ACADEMIC PLANNING

Department: Zoology

Name of the Teacher: Dr. S. Renukumar

Year 2021 - 2022

Title of the Paper: Molecular Genetics Subject Code: 21PZ0205 Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From: 21.01.2022 To: 11.04.2022	Unit I Chromatin structure and nucleosome concept, Organization and function of genetic material, Repetitive DNA.	7 1/2	—	Nil		
II From: 25.04.2022 To: 11.06.2022	Unit II Overlapping genes, Mitochondrial DNA, Types & structure of RNA, Transposons, Genetic structure & analysis of eukaryotic genomes	7 1/2	—	Nil		

Department:

Title of the Paper:

ACADEMIC PLANNING

Department: Zoology

Name of the Teacher: Dr. S. Rajakumar

Year 2021-2022

Title of the Paper: Biodiversity & Evolution, Subject Code: 2.0120411

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From : 21.02.2022 To : 11.04.2022	Unit I <u>Biodiversity</u> concept and definition - Values of biodiversity Methodology for valuation of biodiversity, Bio geographic Zones of India	7 1/2	—	NIL	<i>[Signature]</i>	<i>[Signature]</i>
II From : 25.04.2022 To : 11.06.2022	Unit I <u>Wild life of India</u> (study of mammals, Birds reptiles Amphibians and fishes (examples in each family) wildlife Management in India Biodiversity Hot Spots.	7 1/2	—	NIL	<i>[Signature]</i>	<i>[Signature]</i>

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: Zoology

Name of the Teacher: Dr. S. Raju Kumar

Year 2021 - 2022

Title of the Paper: Biochemistry Subject Code: 19.V.Z.O.B.10

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From : 21.01.2022 To : 11.04.2022	<u>Unit I Molecular Tools of Genetic Engineering</u> Biotechnology definition, Scope <u>Endonuclease</u> - Eco nuclease, Restriction endonuclease, Reverse transcriptase, ligase, Alkaline phosphatase, polymerase. cloning vectors - pBR322, λ phage, yeast vector - Yac Vector, Yec Vector shuttle vector	15 hrs	—	nil		
II From : 25.04.2022 To : 11.06.2022	<u>Unit II Techniques in Genetic Engineering</u> Probes - Construction & labeling Radioactive - Random primed method, non Radioactive - Biotinylation method, Blotting techniques - Southern blotting	15 hrs	—	nil		

KONGUNADU ARTS AND SCIENCE COLLEGE (AUTONOMOUS), COIMBATORE - 29.

ACADEMIC PLANNING

Department: of Zoology

Name of the Teacher: Dr. S. Rajalakshmi

Year 2021 - 2022

Title of the Paper: Physiology Subject Code: BAU-Zo-404

Semester: ODD / EVEN

Test No. & Period	Topics allotted	No. of hours required for completion	Dates & hrs of handling	Topics not covered, if any	Signature of	
					Staff	HOD
I From: 21.02.2022 To: 11.04.2022	<u>Unit I Nutrition & Respiration</u> Types of Nutrition, feeding mechanism Digestion - Extra & Intracellular Metabolism of carbohydrates, fats & Protein, vitamins & Minerals. <u>Respiration</u> Types, pigments, transport of gases, Bohr's effect Chloride shift.	15 hrs	—	nil	<u>[Signature]</u>	<u>[Signature]</u>
II From: 25.04.2022 To: 11.06.2022	<u>Unit II. Nerve Physiology</u> Types of Nerves, myelination & non-myelinated nerve fibres, synapse, origin and conduction of nerve impulse, inter-neuronal transmission, neuromuscular junction, reflex action.	15 hrs	—	nil	<u>[Signature]</u>	<u>[Signature]</u>