**TENTATIVE LESSON PLAN (SEMESTERS)**

SESSION: 2023-24 even semester

Name of the Teacher: Dr. Madhu Bala Department: Zoology

Subject/Course: Paper I Life and Diversity of Chordates-II Programme: B.Sc. IInd Year

Semester: IV

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| Unit | Name of Topic/Contents | Tentative Dates/Days |
|  | Amphibia: Origin, Evolutionary tree. Type study of frog (Ranatigrina), Parental Care in Amphibia | February |
|  | Reptilia: Type study of Lizard (Hemidactylus), Origin, Evolutionary tree. Extinct reptiles; Poisonous and non-poisonous snakes; Poison apparatus in snakes. | March |
|  | Aves: Type study of Pigeon (Columba livia); Flight adaptation, Principles of aerodynamics in Bird flight, migration in birds. migration in birds. | April |
|  | mammels: character and classification Type study of Rat Adaptive radiation and dentition in mammals | May |

Subject/Course: paper 2 Mammalian physiology II Programme: B.Sc. IInd Year

Semester: IV

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| Unit | Name of Topic/Contents | Tentative Dates/Days |
|  | Circulation: Origin, conduction and regulation of heart beat, cardiac cycle, electrocardiogram, cardiac output, fluid pressure and flow pressure in closed and open circulatory system; Composition and functions of blood & lymph; Mechanism of coagulation of blood, coagulation factors; anticoagulants, haempoiesis. | February |
|  | Respiration: Exchange of respiratory gases, transport of gases, lung air volumes, oxygen dissociation curve of hemoglobin, Bohr’s effect, Haburger’s phenomenon (Chloride shift), control / regulation of respiration. | March |
|  | Excretion: Patterns of excretory products viz. Amonotelic, ureotlic uricotelic, ornithine cycle (Kreb’s – Henseleit cycle) for urea formation in liver. Urine formation, counter-current mechanism of urine concentration, osmoregulation, micturition. Neural Integration: Nature, origin and propagation of nerve impulse alongwithmeddullated& non-medullated nerve fibre, conduction of nerve impulse across synapse. | April |
|  | Chemical integration of Endocrinology: Structure and mechanism of hormone action; physiology of hypothalamus, pituitary, thyroid, parathyroid, adrenal, pancreas and gonads. Reproduction: Spermatogenesis, Capacitation of spermatozoa, ovulation, formation of corpus luteum, oestrous-anoestrous cycle, Menstrual cycle in human; fertilization, implantation and gestation. | May |

Subject/Course: paper 1. Aquaculture &Pest Management I Programme: B.Sc. 3rd Year

Semester: v

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| Unit | Name of Topic/Contents | Tentative Dates/Days |
|  | Introduction to world fisheries: Production, utilization and demand.,Fresh Water fishes of India:River system, reservoir, pond, tank fisheries;captive and culture fisheries, cold water fisheries | February |
|  | Fishing crafts and gears,Details of different type of nets,,Fin fishes, Crustaceans, Molluscs and their culture. | March |
|  | Study of important insect pests of crops and vegetables:,Sugercane leaf-hopper (Pyrillaperpusilla) (b) Sugercane Whitefly (Aleurolobusbarodensis),Sugercane top borer (Sciropophaganivella) (d) Sugercane root borer (Emmaloceradepresella),Gurdaspur borer (Bissetiasteniellus) | April |
|  | With their systematic position, habits and nature of damage cause. Life cycle and control of Pyrillaperpusillaonly.,Pink bollworm (Pestinophoragossypfolla) (b) Red cotton bug (DysdercusCingulatus),Cotton grey weevil (Myllocerusundecimpustulatus) (d) =Cotton Jassid (Amrascadevastans),Wheat stem borer (Sesamiainferens) with its systematics position, habits, nature of damage caused. Life cycle and control.,(a) Gundhi bug (Leptocorisaacuta) (b) Rice grasshopper (Hieroglyphusbanian) (c) Rice stem borer (Scirpophagaincertullus) (d) Rice Hispa (Diceladispaarmigera),Their systematics position, habits and nature of damage caused. Life cycle and control of Aulacophorafaveicollis. | May |

Subject/Course: paper 2.. Aquaculture &Pest Management II Programme: B.Sc. 3rd Year

Semester: v

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| Unit | Name of Topic/Contents | Tentative Dates/Days |
|  | Seed production: Natural seed resources – its assessment, collection, Hatchery production 2. Nutrition: Sources of food (Natural, Artificial) and feed composition (Calorie and Chemical ingredients | February |
|  | Field Culture: Ponds-running water, recycled water, cage, culture; poly culture. 4. Culture technology: Biotechnology, gene manipulation and cryopreservation of gametes | March |
|  | Their systematic position, habits and nature of damage caused. Life cycle and control of Trogodermagranarium. 6. Insect control: Biological control,feasibility of biological agents for control. 7. Chemical control: History, Categories of pesticides | April |
|  | Important pesticides from each category to pests against which they can be used. Insect repellants and attractants., | May |

Subject/ Course : science/Animal diversity of chordates

**Programme Bsc 1st year**

Semester 3

| Unit | NameofTopic/Contents | TentativeDates/Days |
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| 1. | salient features, classification of chordates and protochordates characters.Type study of Herdmania | Feburary |
| 2. | General character and classification of class pisces, fins, Type study of labeo.General character and classification of class amphibians and reptiles | March |
| 3. | Type study of frog,General character and classification of class aves, General character and classification of mammalia. | April |
| 4. | Type study of Rat | May |