

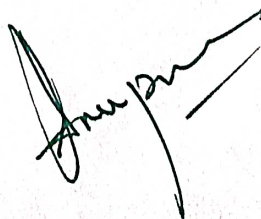
Lesson Plan (Odd Semester)

Class: B.Sc Final year (5th Semester) Medical 2023-24

Teacher's Name : Dr. Poonam

Subject-Zoology

Week	Name of the Topic
1 st week	Introduction to world fisheries: Production, utilization and demand.
2 nd week	Fresh Water fishes of India: River system, Reservoir, pond, tank fisheries.
3 rd week	Captive and culture fisheries, cold water fisheries. Revision and Test
4 th week	Fishing crafts and gears.
5 th week	Fin fishes, Crustaceans, Molluscs and their culture. Seed production: Natural seed resources – its assessment, collection, Hatchery production.
6 th week	Nutrition: Sources of food (Natural, Artificial) and feed composition (Calorie and Chemical ingredients).
7 th week	Field Culture: Ponds-running water, recycled water, cage, culture; poly culture.
8 th week	Culture technology: Biotechnology, gene manipulation and cryopreservation of gametes. Revision and Test
9 th week	Basic concepts of ecology: Definition, significance. Concepts of habitat and ecological niche.
10 th week	Factors affecting environment: Abiotic factors (light-intensity, quality and duration)
11 th week	Temperature, humidity, topography; edaphic factors; biotic factors. Ecosystem: Concept, components, properties and functions.
12 th week	Ecological energetic and energy flow-food chain, food web, trophic structure; ecological pyramids concept of productivity.
13 th week	Revision and Test
14 th week	Biogeochemical cycles: Concept, reservoir pool, gaseous cycles and sedimentary cycles. Population: Growth and regulation.
15 th week	Origin of life. Concept and evidences of organic evolution.
16 th week	Theories of organic evolution. Concept of microevolution and concept of species
17 th week	Concept of macro-and mega-evolution. Phylogeny of horse. Evolution of man.
18 th week	Revision and Test



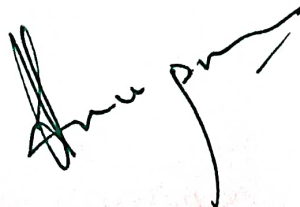
Lesson Plan (Odd Semester)

Class: B.Sc Second year (3rd Semester) Medical 2023-24

Teacher's Name : Dr. Poonam

Subject-Zoology

Week	Name of the Topic
1 st week	Chordates: Principles of classification; Origin and Evolutionary tree. Role of amnion in evolution; Salient features of chordates; Functional morphology of the types with examples emphasizing their biodiversity,
2 nd week	General characters and classification of phyla upto orders with examples emphasizing their biodiversity, economic importance and conservation measures where required.
3 rd week	Protochordates: Systematic position, distribution, ecology, morphology and affinities, economic importance and conservation measures where required.
4 th week	Urochordata: Type study of Herdmania.
5 th week	Cephalochordata: Type study of Amphioxus.
6 th week	Introduction, Classification, Structure, function and general properties of carbohydrates and lipids.
7 th week	Introduction, Classification, Structure, function and general properties of proteins; Nomenclature, Classification and mechanisms of enzyme action.
8 th week	Transport through biomembranes (Active and Passive), buffers.
9 th week	General characters and classification of phyla upto orders.
10 th week	Type study of Petromyzon.
11 th week	General characters and classification of all phyla upto orders.
12 th week	Pisces: Types study of Labeo.
13 th week	Revision and Test
14 th week	Nutrition: Nutritional components; Carbohydrates, fats, lipids, Vitamins and Minerals. Types of nutrition & feeding,
15 th week	Muscles: Types of muscles, ultra-structure of skeletal muscle.
16 th week	Bio-chemical and physical events during muscle contraction; single muscle twitch, tetanus, muscle fatigue muscle, tone, oxygen debt
17 th week	Muscle : Cori's cycle, single unit smooth muscles, their physical and functional properties
18 th week	Bones: Structure and types, classification, bone growth and resorption, effect of ageing on skeletal system and bone disorder
19 th week	Revision and Test



Lesson Plan 2023-24 (Odd Sem)

Class: B.Sc First year (1st sem) Medical

Teacher's Name : Dr. Poonam

Subject- Zoology

Week	Name of the Topic
1 st week	General characters and classification up to order level, Biodiversity and economic importance of Phylum Protozoa -
2 nd week	Type study of Plasmodium
3 rd week	Parasitic protozoans: Life history, mode of infection and pathogenicity of Entamoeba.
4 th week	Life history, Mode of infection and pathogenicity of Trypanosoma, Leishmania and Giardia.
5 th week	General characters and classification up to order level, Biodiversity and economic importance of Phylum Porifera
6 th week	Type study - Sycon.
7 th week	Canal system in sponges, Spicules in sponges
8 th week	Ultrastructure of different cell organelles of animal cell. Plasma Membrane: Fluid mosaic model, various modes of transport across the membrane, mechanism of active and passive transport, endocytosis and exocytosis.
9 th week	Endoplasmic reticulum (ER): types, role of ER in protein synthesis and transportation in animal cell.
10 th week	Goigi complex: Structure, Associated enzymes and role of golgi-complex in animal cell
11 th week	General characters and classification up to order level. Biodiversity, economic importance. Type Study – Obelia
12 th week	Corals and coral reefs. Polymorphism in Siphonophore, Cytoskeleton: Microtubules, microfilaments, centriole and basal body. Cilia and Flagella. Ultrastructure and functions of Nucleus.
13 th week	Test
14 th week	Ribosomes: Types, biogenesis and role in protein synthesis. Lysosomes: Structure, enzyme and their role; polymorphism, Mitochondria.
15 th week	Helminths parasites: Brief account of life history, mode of infection and pathogenesis of Schistosoma, Ancylostoma, Trichinella, Wuchereria and Oxyuris
16 th week	Euchromatin and heterochromatin, lampbrush chromosomes and polytene chromosomes.
17 th week	Mitosis and Meiosis (Cell reproduction). Brief account of causes of Cancer.
18 th week	An elementary idea of cellular basis of Immunity
19 th week	Revision and Test