

ZOOLOGY DEPARTMENT

Lesson Plan 2024-25 (Odd Semester)

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

Subject-Zoology

Teacher's Name: Dr. Radha Rathee, Dr. Anu Bhargava

Nomenclature of paper: Major, Minor and Skill

Week	Name of the Topic:
July:22 to 27	<ul style="list-style-type: none">• Phylum- Protozoa -General characters and classification up to order level• Origins of Evolutionary Thought: Linnaeus• Apiculture meaning, definition scope and history
July:29 to 31	<ul style="list-style-type: none">• Type study of Plasmodium;• Wallace/Darwin: Theory of evolution by Natural Selection.• Status of Apiculture Industry in India
Aug: 1 to 3	<ul style="list-style-type: none">• Parasitic protozoans: Life history, mode of infection and pathogenicity of Entamoeba, Trypanosoma• The forces of evolution and the formation of species.• Classification and Life Cycle of Honey Bee.• Identification of Indigenous and exotic Honey bee species
Aug: 5 to 10	<ul style="list-style-type: none">• Phylum- Porifera:• General characters and classification up to order level• Natural selection, Genetic drift,• Cultivable species of Honey Bee with reference to India• Social organization of honey bees: the castes- queen, drone and workers,
Aug: 12 to 17	<ul style="list-style-type: none">• Canal system and Spicules in sponges• Gene flow,• Founder effect.• Nesting behavior of Honey bees, Bee foraging, Seasonal management, swarming in Honey bees,
Aug: 19 to 24	<ul style="list-style-type: none">• Phylum - Coelenterata:• General characters and classification up to order level• Corals and coral reefs• Human variation and race. Human adaptation.• Waggle dance, defense in honey bees
Aug: 26 to 31	<ul style="list-style-type: none">• Phylum - Helminths:• General characters and classification up to order level

Teacher Incharge :

	<ul style="list-style-type: none"> Life History, Primate sociality, social behavior and culture: as an insight of the origin of sociality in humans. Diseases and Enemies. of Bees, Control and Preventive measures.
Sept: 2 to 7	<ul style="list-style-type: none"> Type study - Fasciola hepatica The hominin record. Early hominins and Australopithecus. Role of Bees in cross pollination in horticulture and agriculture
Sept: 09 to 14	<ul style="list-style-type: none"> Helminths parasites: Brief account of life history, mode of infection and pathogenesis of Ancylostoma, Wuchereria Evolution of Human behavior Methods of Artificial Bee keeping
Sept: 16 to 21	<ul style="list-style-type: none"> Phylum - Annelida: General characters and classification up to order level Metamerism in Annelids Neanderthals and contemporaries Equipments used in Bee keeping Industry
Sept: 23 to 28, 30	<ul style="list-style-type: none"> Phylum – Arthropoda: General characters and classification up to order level Methods of extraction of Honey and other products <p>Revision and Test</p>
Oct: 1 to 5	<ul style="list-style-type: none"> Type study – Periplaneta Products of Apiculture Industry and their Uses -Honey, Bee Wax, Royal Jelly
Oct: 7 to 12	<ul style="list-style-type: none"> Phylum - Mollusca: General characters and classification up to order level Bee Venom, Propolis and Pollen
Oct: 14 to 19	<ul style="list-style-type: none"> Torsion and detorsion in gastropoda Bee Keeping Industry: Present and future <p>Revision and Test</p>
Oct: 21 to 26	<ul style="list-style-type: none"> Phylum - Echinodermata: General characters and classification up to order level Prospects of apiculture as self employment venture.
Oct:27 to Nov:03	Diwali Vacations
Nov: 4 to 9	<ul style="list-style-type: none"> Type Study -Asteries (Sea Star) Economics of Apiculture: Expenditure, Net Income, and Additional benefits
Nov: 11 to 16	<ul style="list-style-type: none"> Phylum – Hemichordata:General characters
Nov: 18 to 22	Revision and Test

Teacher Incharge :

Zeel R. Raju

ZOOLOGY DEPARTMENT

Lesson Plan 2024-25 (Odd Semester)

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

Subject-Zoology

Nomenclature of paper: Type study and Physiology

Teacher's Name: Dr. Madhuri, Ms. Babli Rather

Week	Name of the Topic
July:22 to 27	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,
July:29 to 31	General characters and classification of phyla upto orders with examples emphasizing their biodiversity, economic importance and conservation measures where required.
Aug: 1 to 3	Protochordates: Systematic position, distribution, ecology, morphology and affinities, economic importance and conservation measures where required.
Aug: 5 to 10	Urochordata: Type study of Herdmania.
Aug: 12 to 17	Cephalochordata: Type study of Amphioxus. Revision and Test
Aug: 19 to 24	Introduction, Classification, Structure, function and general properties of carbohydrates and lipids.
Aug: 26 to 31	Introduction, Classification, Structure, function and general properties of proteins; Nomenclature, Classification and mechanisms of enzyme action.
Sept: 2 to 7	Transport through biomembranes (Active and Passive), buffers. Revision and Test
Sept: 09 to 14	Type study of Petromyzon.
Sept: 16 to 21	General characters and classification of phyla upto orders.
Sept: 23 to 28, 30	Pisces: Types study of Labeo.
Oct: 1 to 5	Nutrition: Nutritional components; Carbohydrates, fats, lipids, Vitamins and Minerals. Types of nutrition & feeding. Revision and Test
Oct: 7 to 12	Muscles: Types of muscles, ultra-structure of skeletal muscle.
Oct: 14 to 19	Bio-chemical and physical events during muscle contraction; single muscle twitch, tetanus, muscle fatigue muscle, tone, oxygen debt.
Oct: 21 to 26	Muscle : Cori's cycle, single unit smooth muscles, their physical and functional properties
Oct:27 to Nov:03	Diwali Vacations
Nov: 4 to 9	Bones: Structure and types, classification, bone growth and resorption,
Nov: 11 to 16	Effect of ageing on skeletal system and bone disorder.
Nov: 18 to 22	Revision

Babli

Teacher Incharge :

ZOOLOGY DEPARTMENT

Lesson Plan 2024-25 (Odd Semester)

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

Teacher's name- Dr. Mamta Khokhar, Dr Manju Chikkara

Nomenclature of paper-Fish and Fisheries, Ecology and Evolution

Subject-Zoology

Week	Name of the Topic
July:22 to 27	Basic concepts of ecology: Definition, significance. Concepts of habitat and ecological niche.
July:29 to 31	Factors affecting environment: Abiotic factors (light-intensity, quality and duration)
Aug: 1 to 3	Origin of life. Concept and evidences of organic evolution.
Aug: 5 to 10	Theories of organic evolution. Concept of microevolution and concept of species
Aug: 12 to 17	Temperature, humidity, topography; edaphic factors; biotic factors.
Aug: 19 to 24	Revision and Test
Aug: 26 to 31	Ecosystem: Concept, components, properties and functions.
Sept: 2 to 7	Ecological energetic and energy flow-food chain, food web, trophic structure; ecological pyramids concept of productivity.
Sept: 09 to 14	Concept of macro-and mega-evolution. Phylogeny of horse.
Sept: 16 to 21	Biogeochemical cycles: Concept, reservoir pool, gaseous cycles and sedimentary cycles. Revision and Test
Sept: 23 to 28, 30	Population: Growth and regulation. Evolution of man.
Oct: 1 to 5	Introduction to world fisheries: Production, utilization and demand.
Oct: 7 to 12	Fresh Water fishes of India: River system, Reservoir, pond, tank fisheries.
Oct: 14 to 19	Captive and culture fisheries, cold water fisheries. Revision and Test
Oct: 21 to 26	Fishing crafts and gears. Fin fish, Crustacean and Molluscs and their culture.
Oct:27 to Nov:03	Seed production and Nutrition.
Nov: 4 to 9	Diwali Vacations
Nov: 11 to 16	Culture technology: Biotechnology, gene manipulation and cryopreservation of gametes.
Nov: 18 to 22	Field Culture: Ponds-running water, recycled water, cage, culture; poly culture.
	Revision

Teacher Incharge : 1-