

Government PG College, Ambala Cantt.

Subject: Zoology Name of Teacher : Dr. Ratesh Kumar

Lesson Plan Session 2022-23 Class: B.Sc. 2nd sem.

Month	Details
January 2023	1. Phylum – Annelida : i) General characters and classification up to order level ii) Biodiversity and economic importance of Annelida iii) Type study – <i>Pheretima</i> (Earthworm) vi) Metamerism in Annelida v) Trochophore larva
February 2023	2. Phylum – Arthropoda : i) General characters and classification up to order level ii) Biodiversity and economic importance of insects vi) Type study – <i>Grasshopper</i>
March 2023	2. Phylum – Echinodermata : i) General characters and classification up to order level ii) Biodiversity and economic importance vii) Type study – <i>Asteries</i> (Sea Star) viii) Echinoderm larvae ix) Aristotle's Lantern
April 2023	1. Phylum - Mollusca: i) General characters and classification up to order level ii) Biodiversity and economic importance iii) Type study of - <i>Pila</i> iv) Torsion and detorsion in gastropoda v) Respiration and foot 3. Phylum Hemichordate : General Character; Type Study of <i>Ballangosus</i>
May 2023	6. Nature and function of genetic material : Structure and type of nucleic acids; Protein synthesis. 7. Eugenics, eugenics and euphenics; spontaneous and induced (chemical and radiations) mutations; gene mutations; chemical basis of mutations; transition, transversion, structural chromosomal aberrations (deletion, duplication, inversion and translocation); Numerical aberrations (autopolyploidy, euploidy and polyploidy in animals) 8. Applied genetics : genetic counseling, pre-natal diagnostics, DNA-finger printing, transgenic animals.

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Subject: Zoology Name of Teacher : Dr. Ratesh Kumar

Lesson Plan Session 2022-23 Class: B.Sc. 4th sem.

Month	Details
January 2023	1. Amphibia: Origin, Evolutionary tree. Type study of frog (<i>Rana tigrina</i>), Parental Care in Amphibia
February 2023	2. Reptilia: Type study of Lizard (<i>Hemidactylus</i>), Origin, Evolutionary tree. Extinct reptiles; Poisonous and non-poisonous snakes; Poison apparatus in snakes.
March 2023	3. Aves: Type study of Pigeon (<i>Columba livia</i>); Flight adaptation, Principles of aerodynamics in Bird flight, migration in birds.
April 2023	4. Mammals: Classification, type study of Rat Class Test
May 2023	Adaptive radiations of mammals dentition.

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Subject: Zoology Name of Teacher : Dr. Ratesh Kumar
Lesson Plan Session 2022-23 Class: B.Sc. 6th sem.

Month	Details
January 2023	1. 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 2023	3. Field Culture: Ponds-running water, recycled water, cage, culture; poly culture. 4. Culture technology: Biotechnology, gene manipulation and cryopreservation of gametes.
March 2023	5. Stored grains: (a) Pulse beetle (<i>Callosobruchus maculatus</i>) (b) Rice weevil (<i>Sitophilus oryzae</i>) (c) Wheat weevil (<i>Trogoderma granarium</i>) (d) Rust Red Flour beetles (<i>Tribolium castaneum</i>) (e) Lesser grain borer (<i>Rhizopertha dominica</i>) (f) Grain & Flour moth (<i>Sitotroga cerealella</i>) 6. Insect control: Biological control, its history, requirement and precautions and feasibility of biological agents for control. Class test
April 2023	7. Chemical control: History, Categories of pesticides. Important pesticides from each category to pests against which they can be used. Insect repellants and attractants. 8. Integrated pest management.
May 2023	9. Important bird and rodent pests of agriculture & their management.

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