

staff (202)

Teaching staff (Regular)

Lesson Plan 2021-22 Even semester

Class : B.Sc. (Med.) 6th Semester (Theory)

Subject lesson plan: From April 2022 to June 2022

Teachers: Dr. Santosh Hooda, Mrs. Manju Chhikara

<u>Week & Date</u>	<u>Topics</u>
Week 1	
April 01-08	Study of insect pests of crops and vegetables.
Week 2	
April 09-15	Pest of Sugarcane, Pest of Cotton, Pest of Wheat
Week 3	
April 16-22	Pest of Paddy, Pest of Vegetables, Pest of Stored grains
Week 4	
April 23-30	Insect control: Biological control, its history, requirement and precautions and feasibility of biological agents for control.
Week 5	
May 01-10	Chemical control: History, Categories of pesticides. Important pesticides from each category to pests against which they can be used. Insect repellants and attractants.
Week 6	
May 11-20	Integrated pest management, Important bird and rodent pests of agriculture & their management.
Week 7	
May 21- 4 June	Historical perspectives, aims and scope of developmental biology. Generalized structure of mammalian ovum & sperm. Spermatogenesis and Oogenesis
Week 8	
June 06-11	Fertilization, parthenogenesis, different types of eggs and patterns of cleavage in invertebrates and vertebrates. Process of blastulation in invertebrates and vertebrates, Fate-map construction in frog and chick.
Week 9	
June 13-18	Gastrulation in invertebrates and vertebrates. Gastrulation & formation of three germinal layers in frog and chick.. Elementary knowledge of primary organizers
Week 10	
June 20-25	Extra embryonic membranes: structure & significance in birds and mammals. Concepts of competence, determination and differentiation. Concept of regeneration
Week 11	
June 27-30	Revision

Tests are scheduled after completion of units.

Seema

29/3/2022

Zoology Dept.

Staff (202)

Lesson Plan 2021-22 Even semester

Class : B.Sc. (Med.) 4th Semester (Theory)

Subject lesson plan: From April 2022 to June 2022

Teachers: Dr. Seema Jain (H.O.D), Mrs. Madhuri Kaushik, Mrs Babli Rathee

	<u>Topics</u>
Week 1	
April 01-08	Amphibia: Origin, Evolutionary tree. Type study of frog (<i>Rana tigrina</i>), Parental Care in Amphibia
Week 2	
April 09-15	Reptilia: Type study of Lizard (<i>Hemidactylus</i>), Origin, Evolutionary tree. Extinct reptiles; Poisonous and non-poisonous snakes; Poison apparatus in snakes
Week 3	
April 16-22	Aves: Type study of Pigeon (<i>Columba livia</i>); Flight adaptation, Principles of aerodynamics in Bird flight, migration in birds.
Week 4	
April 23-30	Mammals: Classification, type study of Rat; Adaptive radiations of mammals and dentition.
Week 5	
May 01-10	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, haemopoiesis
Week 6	
May 11-20	Respiration: Exchange of respiratory gases, transport of gases, lung air volumes, oxygen dissociation curve of hemoglobin, Bohr's effect, Hamburger's phenomenon (Chloride shift), control / regulation of respiration.
Week 7	
May 21- 4 June	Excretion: Patterns of excretory products viz. Amonotelic, ureotlic uricotelic, ornithine cycle (Kreb's- Henseleit cycle) for urea formation in liver. Excretion: Urine formation, counter-current mechanism of urine concentration, osmoregulation, micturition
Week 8	
June 06-11	Neural Integration: Nature, origin and propagation of nerve impulse along with medullated & non-medullated nerve fibre, conduction of nerve impulse across synapse.
Week 9	
June 13-18	Chemical integration of Endocrinology: Structure and mechanism of hormone action Physiology of hypothalamus, pituitary, thyroid, parathyroid, adrenal, pancreas and gonads. Reproduction: Spermatogenesis.
Week 10	
June 20-25	Capacitation of spermatozoa, ovulation, formation of corpus luteum, Oestrous-anoestrous cycle, Menstrual cycle in human; fertilization, implantation and gestation.
Week 11	
June 27-30	Revision

Tests are scheduled after completion of units

Seema
 29/3/2022
 Zoology Dept.

Lesson Plan 2021-22 Even Semester

Class : B.Sc. (Med.) 2nd Semester (Theory)

Subject lesson plan: From April 2022 to June 2022

Teachers: Mrs Mamta Khokhar, Dr. Radha Rathee, Mrs Anu Bhargava

Week & Date	Topics
Week 1 April 01-08	Phylum - Annelida: General characters and classification, Biodiversity and economic importance, Type study - Pheretima, Metamerism, Trochophore larva: Affinities, evolutionary significance
Week 2 April 09-15	Phylum - Arthropoda : General characters and classification, Biodiversity and economic importance, Type study - Periplaneta
Week 3 April 16-22	Phylum - Mollusca: General characters and classification, Biodiversity and economic importance, Type study - Pila, Torsion and detorsion in gastropoda.
Week 4 April 23-30	Phylum - Echinodermata: General characters and classification, Biodiversity and economic importance, Type Study - Asteries (Sea Star), Echinoderm larvae, Aristotle's Lantern
Week 5 May 01-10	Phylum - Hemichordata: Type study: Balanoglossus Elements of Heredity and variations, The varieties of gene interactions, Linkage and recombination: Coupling and repulsion hypothesis, crossing-over and chiasma formation; gene mapping
Week 6 May 11-20	Sex determination and its mechanism: male and female heterozygous systems, genetic balance system; role of Y -chromosome, male haploidy, cytoplasmic and environmental factors, role of hormones in sex determination.
Week 7 May 21- 4 June	Sex linked inheritance: Haemophilia and colour blindness in man, eye colour in Drosophila, Nondisjunction of sex-chromosome in Drosophila; Sex-linked and sex influenced inheritance. Extra chromosomal and cytoplasmic inheritance: i) Kappa particles in Paramecium. ii) Shell coiling in snails. iii) Milk factor in mice
Week 8 June 06-11	Multiple allelism: Eye colour in Drosophila; A, B, O blood group in man. Human genetics: Human karyotype, Chromosomal abnormalities involving autosomes and sex chromosomes, monozygotic and dizygotic twins. Inborn errors of metabolism.
Week 9 June 13-18	Nature and function of genetic material; Structure and type of nucleic acids; Protein synthesis. spontaneous and induced (chemical and radiations) mutations; Gene mutations; chemical basis of mutations; transition, transversion, structural chromosomal aberrations; numerical aberrations.
Week 10 June 20-25	Applied genetics: Eugenics, eugenics and euphenics; genetic counseling, pre-natal diagnostics, DNA-finger printing, transgenic animals
Week 11 June 27-30	Revision

Tests are scheduled after completion of units.

Seema
29/3/2022
Zoology