

Lesson Plan

Name of the Assistant/ Associate Professor: Sunil Kumar..... Sem...IInd.....

Class and Section: B.Sc. Ist year

Subject: Zoology (Paper: II (Genetics))

Month	Topics
31 st January 2023	Elements of Heredity & Variations,
01 st February to 28 th February 2023	The Varieties of gene interaction; Linkage & REcombination :- Crossing over & chiasma formation; gene mapping. Sex determination & its Mechanism :- male & female Heterozygous System, Role of Y-chromosome; genetic Balance theory; Role of Hormones in Sex determination
1 st March to 31 st October 2023	Sex Linked Inheritance: Haemophilia & Colour blindness in man; eye colour in Drosophila Extrachromosomal & Cytoplasmic inheritance: Kappa particle in paramecium; Shell coiling in Snails; Milk factor in mice.
1 st April to 30 April 2023	Multiple Allelism; ABO blood group in Man. Human genetics: Human Karyotype; chromosomal Abnormalities Inborn errors in Metabolism; Nature & function of Genetic Material: - Structure & type of nucleic Acid; protein Synthesis;
1 st May to 08 th May 2023	Gene mutation; chemical Basis of mutation; Structural Chromosomal aberrations; Applied genetics: Eugenics; genetic counseling, DNA finger printing & transgenic Animals.

Sunil Kumar
Teacher's Signature

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Name of the Assistant/ Associate Professor: Sunil Kumar..... Sem...IVth.....

Class and Section: B.Sc. IInd year Subject: Zoology.....

Month	Topics
17 th January to 31 st January 2023	<u>Paper: I (Life and diversity of Chordates-II):</u> → <u>Amphibia</u> : Origin, evolutionary tree, type Study of frog (<i>Rana tigrina</i>); Parental Care in Amphibia
01 st February to 28 th February 2023	<u>Reptilia</u> : General characters, classification, example and Economic Importance, Origin Evolutionary tree Extinct Reptiles; Poison apparatus in Snakes Type study of Lizard (<i>Hemidactylus</i>) <u>Aves</u> : Type Study Pigeon
1 st March to 31 st October March 2023	<u>Aves</u> : → flight Adaptation, Principles of aerodynamics in Bird flight, Migration in Birds. <u>Mammals</u> : → Classification, type study of Rat; Adaptive Radiations of Mammal dentition
1 st April to 30 April 2023	<u>Paper: II (Mammalian Physiology):</u> → <u>Circulation</u> : - Origin, Conduction and Regulation of Heart Beat Cardiac cycle, electrocardiogram; Composition & function of Blood <u>Respiration</u> : - Exchange of Respiratory gases, transport of gases, lung air volumes, Bohr's effect. <u>Excretion</u> : - Urine formation; Counter Current mechanism, Microratim.
1 st May to 08 th May 2023	<u>Chemical integration & Endocrinology</u> : Structure and Mechanism of Hormone Action. <u>Reproduction</u> : - Spermatogenesis & Oogenesis; Menstrual cycle in Human & Fertilisation;

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