**Lesson plan**

**Zoology**

**1 st sem w. e. f. 27.10.23 to 5.12.23 (last two days in week )**

**October -** General characters and classification up to classes of Kingdom Protista and Phylum Porifera. Locomotory organelles and locomotion in Protozoa and canal system in sycon.

**November** : General characters and classification up to classes of phylum Cnidaria, Platyhelminthes, Nemathelminthes, Arthropoda and mollusca. Polymorphism in hydrozoa, life cycle of Taenia solium. Parasitic adaptation, metamerism in Annelida, Vision in Arthropod, Metamorphosis in insects, Torsion in gastropods, Water vascular system in asteroidea, Phylogeny of protocordata, Osmoregulation in fishes. General characters and Classification up to classes of class amphibia, reptilia.

**December** :

Parental care in amphibians, poisonous and non poisonous snakes, Biting mechanism in snakes, Flight adaptation in birds and origin of mammals

**Lesson plan**

**Zoology 3rd sem.**

**Session 2023-24**

**w. e. f. 27.10.23 to 5.12. 23**

**October -** Structure of neuron, Resting membrane potential, Graded potential, Origin of action potential and its propagation in myelinated and unmyelinated nerve fibers, Ultrastructure of skeletal muscle, molecular and chemical basis of muscle contraction

**November** - Physiology of digestion in alimentary canal, Absorption of Carbohydrates, proteins, lipids, Pulmonary ventilation, respiratory volumes and capacities, Transport of Oxygen and Carbon dioxide in blood. Structure of nephron, mechanism of urine formation and counter current mechanism.

Glycolysis, Krebs cycle, pentose phosphate pathway, Gluconeogenesis, Glycogen metabolism, Electron transport chain, Biosynthesis and Beta oxidation of palmitic acid, transamination, Deamination and urea cycle

**December -** Introduction, Mechanism of action, Enzyme kinetics, Inhibition and regulation. Composition of blood, homeostasis, structure of heart.