

SYLLABUS IN ZOOLOGY

- **Protozoa:** Paramecium; **Porifera-** Sycon; **Coelenterata-** Aurelia.
- **Platyhelminthes:** - Fasciola; **Nemathelminthes-** Ascaris; **Annelida-** Leech.
- **Athropoda:** Prawn; **Mollusca-** Pila; **Echinodermata-** Starfish.
- **Chordata:** Outline classification, elementary ideas on protochordates, cyclostomes, fishes; Tetrapoda-Amphibia, Reptilia, Aves and Mammalia.
- **Cytology:** Pro-karyotes and Eukaryotes cell types, ultra-structure of cell - organelles, Mitosis and Meiosis.
- **Genetics:** Mendel's laws of inheritance.
- **Ecology:** Concept of Ecosystem and its Components; Pond, grass and forest as ecosystem; Food chain, food web, Trophic levels, Light and Temperature as ecological factors.
- **Bio-Chemistry and Molecular Biology:** Classification, Structure and properties of proteins and carbohydrates; Structure and properties of lipid; Enzymes- Introduction, classification, factors affecting enzyme activity.
- Structure of DNA, structure of RNA, types of RNA (mRNA, tRNA, ribosomal RNA (mostly of Prokaryotes).
- **Embryology:** Spermatogenesis, Oogenesis, Ultrastructure of sperm and ovum, Fertilization, Cleavage, pattern of cleavage in frogs, Study of developmental stages of Frog.
- **Immunology:** Types of antigens and antibody, Antigen-antibody reaction,
- **Economic Zoology:** Economically important aquatic animals of Odisha – Fish culture and prawn culture; Elementary ideas on Sericulture, Apiculture; Life history of honey bee and composition of honey; Economically important fishes, silk moth- life history.
- **Physiology:** Digestive system and physiology of digestion; respiratory system and physiology of respiration; structure and function of human heart, kidney, brain.
- **Endocrinology:** Structure and function of mammalian pituitary, adrenal, thyroid and pancreas.
