

## SUBJECT : ZOOLOGY

1. **Cell structure and Function** : Structure of an animal cell, nature and function of cell organells, mitosis and Mciosis, Chromosomes and genes, law of inheritance, mutation.
2. **General Survey and classification of non-chordates** : (upto sub-classes) and chordates (uptoOrders) of following protozoa, porifera Coclenterata, Platyhelminthes, Ascheminthes. Annclida, Arthrpoda, Mollusca, Echinodermate and Chordata.
3. **Structure, reproduction and life history of following types:**  
Amoeba, Monocystis, Plasmodium, Paramccium, Sycon, Hydra, Obelia, Fasciola, Talina, Ascaris, Nereis, Pheretime, Leach, Prawn, Scorpion, Cockroach a bivalve, a snail Balanaglossus, an Ascidian; Amphioxus.
4. **Comparative anatomy of vertebrates** : Integument endoskeleton, locomotory organs, digestive system, respiratory system, heart and circulatory system, urinogenital system and sense organs.
5. **Physiology** : Chemical Composition of protoplasm, nature and function of enzymes colloids and hydrogenion concentration, biological oxidation. Elementary physiology of digestion, excretion, respiration blood, mechanism of circulation with special reference to man, nerve, impulse, conduction and transmission across synäptic junction.
6. **Embryology** : Gametogenesis, fertilization, cleavage, gastrulation; Early development and metamorphogenesis of frog . Ascidian and retrogressive metamorphosis . Neoteny development of foetal membranes in chick and mammals.
7. **Evolution** : Origin of life, Principles and evidences of evolution, speciation mutation and isolation.
8. **Ecology** : ABiotic and abiotic factors, concept of eco -system, , food chain and energy flow, adaptation of aquatic and desert fauna, parasitism and symbiosis. Factors causing environmental population and its prevention Endangered species. Chronobiology and circadium rhythm.
9. **Economic Zoology** : Beneficial and harmful insects.