OPTIONAL SUBJECT - ZOOLOGY


2. Origin of chordates, general features and life history of Branchiostoma, Herdmania (Ascidian tadpole larva) & Petromyzon (Ammocoete larva). Comparative functional anatomy of various systems of vertebrates [Integument & its derivatives, digestive system, respiratory system, circulatory system including heart and aortic arches, urinogenital system, brain & sense organs (eye & ear)]

3. Structure and function of cell and its organelles (Plasma membrane, mitochondria, golgi bodies, endoplasmic reticulum, ribosome's, lysosomes, nucleus), cell division (mitosis & meiosis), mitotic spindle and mitotic apparatus, chromosome movement.
Chemical constituents of living cells: Biomolecules, structure and function of proteins, carbohydrates, lipids & nucleic acids.


Principles and practices of the following: Vermiculture, Lac culture, Apiculture, Poultry culture, Pisciculture, Pearl culture.
Economic importance of Protozoa, corals and coral reefs, Helminthes, Arthropods, insects and their management.

   Methods of studying animal behaviour.
   Biostatistics: Mean, mode, median, standard deviation, Probability.

10. Immunology: Types of immunology, organs of immune system, antigen-antibody reactions.
   Immunity regulating cells, mechanism of humoral and cell mediated immunity. vaccines, pathogens and parasites.
   Definition, scope and application of biotechnology, recombinant DNA technology, human genome project.
   Brief concept of animal cell, tissue, organ and embryo culture, transgenic animals.

Note :- Pattern of Question Paper
   1. Objective type paper
   2. Maximum Marks : 200
   3. Number of Questions : 120
   4. Duration of Paper : Three Hours
   5. All questions carry equal marks.
   6. There will be Negative Marking.