

**REVISED SYLLABUS- ZOOLOGY
(EFFECTIVE FROM 2003-2004)**

FIRST YEAR INTERMEDIATE COURSE

UNIT – I ZOOLOGY , THE BASICS

(6 Periods)

- i) Nature and scope of zoology.
- ii) Relation between zoology and other sciences.
- iii) Basic principles of classification.
 - a) Need for Classification.
 - b) Only Five Kingdom Classification : viz., Monera , Protista . Plantae. Fungi and Animalia.
 - c) Concept of species –levels of classification – Binomial nomenclature.

UNIT - II LOCOMOTION AND REPRODUCTION IN PROTOZOA –

(6 Periods)

Types of Locomotion:

- a) Types and Structure of locomotory oraganelles – Pseudopodia,Cilia and Flgellae giving examples.
- b) Amoeboid movement (Pseudopodial movement) - Sol – gel theory only.
- c) Ciliary and Flagellar movements – Synchronal and Metachronal movements (Eg. Paramecium) Effective stroke and recovery stroke (Eg. Euglena).

Types of Reproduction:

- a) Asexual reproduction –Binary fission (Transverse and longitudinal).
- b) Sexual reproduction – Conjugation in Vorticella and its significance.

UNIT – III ANIMAL ORGANISATION.

(11 Periods)

- i) Multicellularity – Diploblastic – Triploblastic condition
- ii) Symmetry- Types and characteristic features of each symmetry, giving an example for each type from the representative phyla – Asymmetry, Radial symmetry and Bilateral symmetry.
- iii) Coelome
 - a) Definition of Acoelomates, Pseudocoelomates and Eucoelomates.
 - b) Formation of True coelom. Schizocoelic and Entaerocealic coelom.
- iv)
 - a) Animal Cell – structure only. (Brief)
 - b) Animal tissues.

UNIT – IV PHYLUM ANNELIDA

(10 Periods)

Pheritima type study in detail.

UNIT –V PHYLUM ARTHROPODA**(12 Periods)**

- a) Cockroach – Periplanata americana – External characters, Digestive system, Respiratory and Nervous systems only.
- b) Insect mouth parts of the following types.
 - i) Biting and Chewing type – Eg : Cockroach.
 - ii) Piercing and Sucking type –Eg: Mosquito
 - iii) Sponging and Sucking type – Eg: House fly.
 - iv) Siphoning type – Eg: Butterfly.
- c) Economic importance of insects:
 - a) Useful insects viz, Silk worm, Honey bee, Lac insect their produce and general features.
 - b) Harmful insects viz, Bed bug, Head louse, Mosquito and Housefly –their harmful effects and diseases they spread.

UNIT VI GENERAL CHARACTERS AND CLASSIFICATION OF INVERTEBRATE PHYLA UPTO THE LEVEL OF CLASSES**(12 Periods)**

- i) Phylum : Protozoa , Porifera , Coelenterata (Cnidaria), Patyhelminthes, Nematoda, Annelida, Arthropoda, Mollusca and Echinodermata.

UNIT - VII ANIMAL ASSOCIATIONS:**(11 Periods)**

- a) Definition and one or two examples of the following associations.
 - i) Mutualism / Symbiosis
 - ii) Commensalism
 - iii) Parasitism
 - iv) Predation
- b) Structure and life cycle of the following parasites.
 - i) *Entamoeba histolytica*
 - ii) *Plasmodium vivax*

- iii) *Taenia solium*
- iv) *Wuchereria bancrofti*.

UNIT VIII MAN AND BIOSPHERE

(17 Periods)

I. Elementary aspects of Ecosystem

- i) Abiotic factors – Light, Temperature and Water – their biological effects on organism.
- ii) Biotic factors – Producers , Consumers and Decomposers.
- iii) Lake Ecosystem—Littoral zone ,Limnetic zone and profundel zone- Ecological pyramids and Eneery flow.
- iv) Population ecology , Population density, growth , age distribution and population regulation,

II. ENVIRONMENTAL POLLUTION

- i) Air pollution & Preventive measures
- ii) Water pollution & Preventive measures
- iii) Soil pollution & Preventive measures
- iv) Sound pollution & Preventive measures

Restrict to chief pollutants their sources, their effects on biological systems only

- v) Wild life conservation.
