

**TELANGANA STATE BOARD OF INTERMEDIATE EDUCATION,  
HYDERABAD**

**ZOOLOGY - I**

**SYLLABUS**

**(w.e.f. 2012-13)**

**UNIT- I: ZOOLOGY - Diversity of Living World**

- 1.1. What is life?
- 1.2. Nature, Scope & meaning of zoology
- 1.3. Branches of Zoology
- 1.4. Need for classification- Zoos as tools for the study of taxonomy
- 1.5. Basic principles of Classification: Biological system of classification- (Phylogenetic classification only)
- 1.6. Levels or Hierarchy of classification
- 1.7. Nomenclature – Bi & Trinominal
- 1.8. Species concept
- 1.9. Kingdom Animalia
- 1.10. Biodiversity – Meaning and distribution (Genetic diversity, Species diversity, Ecosystem diversity (alpha,beta and gama), other attributes of biodiversity, role of biodiversity, threats to biodiveristy, methods of conservation, IUCN Red data books, Conservation of wild life in India – Legislation, Preservation, Organisations, Threatened species.

**UNIT- II: STRUCTURAL ORGANIZATION IN ANIMALS**

- 2.1. Levels of organization, Multicellularity: Diploblastic & Triploblastic conditions
- 2.2. Asymmetry, Symmetry: Radial symmetry, and Bilateral symmetry
- 2.3. Acoelomates, Pseudocoelomates and Eucoelomates: Schizo & Entero coelomates
- 2.4. Tissues: Epithelial, Connective, Muscular and Nervous tissues. (make it a little more elobarative)

### **UNIT- III: ANIMAL DIVERSITY - I:**

***INVERTEBRATE PHYLA* General Characters – Strictly restrict to 8 salient features only classification up to Classes with two or three examples – Brief account only**

- 3.1. Porifera
- 3.2. Cnidaria
- 3.3. Ctenophora
- 3.4. Platyhelminthes
- 3.5. Nematoda
- 3.6. Annelida (Including Brief type study of Earthworm)
- 3.7. Arthropoda
- 3.8. Mollusca
- 3.9. Echinodermata
- 3.10. Hemichordata

### **UNIT- IV: ANIMAL DIVERSITY - II: PHYLUM : CHORDATA**

- 4.0. Phylum :Chordata
- 4.1. Sub phylum: Urochordata
- 4.2. Sub phylum: Cephalochordata
- 4.3. Sub phylum : Vertebrata
- 4.4. Super class: Agnatha
- 4.4.1. Class Cyclostomata
- 4.5. Super class: Gnathostomata
- 4.5.1. Super class pisces
- 4.5.2. Class: Chondrichthyes
- 4.5.3. Class: Osteichthyes
- 4.6. Tetrapoda
- 4.6.1. Class: Amphibia (Including brief type study of Frog)
- 4.6.2. Class: Reptilia
- 4.6.3. Class: Aves
- 4.6.4. Class: Mammalia

## **UNIT- V: LOCOMOTION & REPRODUCTION IN PROTOZOA**

- 5.1. Locomotion: Definition, types of locomotor structures pseudopodia (basic idea of pseudopodia without going into different types), flagella & cilia (Brief account giving two examples each)
- 5.2. Flagellar & Ciliary movement – Effective & Recovery strokes in Euglena, Synchronal & Metachronal movements in Paramecium.
- 5.3. Reproduction: Definition, types. Asexual Reproduction: Transeverse binary fission in Paramecium & Longitudinal binary fission in Euglena. Multiple fission,
- 5.4. Sexual Reproduction.

## **UNIT- VI: BIOLOGY & HUMAN WELFARE**

- 6.1. Parasitism and parasitic adaptation
- 6.2. Health and disease: introduction (follow NCERT) Life cycle, Pathogenecity, Treatment & Prevention (Brief account only)
  1. *Entamoeba histolytica* 2. *Plasmodium vivax* 3. *Ascaris lumbricoides*
  4. *Wuchereria bancrofti*
- 6.3. Brief account of pathogenecity, treatment & prevention of Typhoid, Pneumonia, Common cold, & Ring worm.
- 6.4. Drugs and Alcohol abuse

## **UNIT- VII: TYPE STUDY OF PERIPLANETA AMERICANA**

- 7.1. Habitat and habits
- 7.2. External features
- 7.3. Locomotion
- 7.4. Digestive system
- 7.5. Respiratory system
- 7.6. Circulatory system
- 7.7. Excretory system
- 7.8. Nervous system – sense organs, structure of Ommatidium.
- 7.9. Reproductive system

## **UNIT- VIII: ECOLOGY & ENVIRONMENT**

- 8.1. Organisms and Environment: Ecology, population, communities, habitat, niche, biome and ecosphere (definitions only)
- 8.2. Ecosystem: Elementary aspects only Abiotic factors- Light, Temperature & Water (Biological effects only), Ecological adaptations
- 8.3. Population interactions
- 8.4. Ecosystems: Types, Components, Lake ecosystem
- 8.5. Food chains, Food web, Productivity and Energy flow in Ecosystem, Ecological pyramids – Pyramids of numbers, biomass and energy.
- 8.6. Nutrient cycling – Carbon, Nitrogen, & Phosphorous cycles (Brief account)
- 8.7. Population attributes: Growth, Natality and Mortality, Age distribution, Population regulation.
- 8.8. Environmental issues

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