

SWAMI RAMANAND TEERTH MARATHWADA UNIVERSITY, NANDED

Choice Based Credit System (CBCS) Course Structure

Faculty of Science & Technology

B. Sc. First Year Syllabus w.e.f. June, 2019

Zoology

Semester -I

Paper: CCZ-I: Biodiversity of Invertebrates and Chordates

Section -A

Periods : 45

Title of Paper: Paper-I : Biodiversity of Invertebrates

Credits: 02 (Marks: 50)

Objectives:

1. To broadly understand Biodiversity, Habitat, Adaptation, Anatomical organization and taxonomic status of invertebrates phyla in relation to other animal taxa.
2. Understanding the basis of biological classification and its conceptual framework.
3. Appreciating the structural and functional correlation between different invertebrate groups.

UNIT - I

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1. **Introduction of Non-chordates**
2. **Protozoa:** General characters and classification up to class level with suitable examples; Locomotory Organelles and locomotion in Protozoa.  
Structure, Life Cycle, Pathogenicity and Control Measures of *Plasmodium vivax*.
3. **Porifera:** General characters and classification up to class level with suitable examples; Canal System in *Sycon*; Economic importance of Porifera.

UNIT - II

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1. **Coelenterata:** General characters and classification up to class level with suitable examples; Polymorphism in Hydrozoa.
2. **Platyhelminthes:** General characters and classification up to class level with suitable examples; Structure, Life Cycle, Pathogenicity and Control Measures of *Taenia solium*.
3. **Nemathelminthes:** General characters and classification up to class level with suitable examples; Structure, Life Cycle, Pathogenicity and Control Measures of *Ascaris lumbricoides*.

UNIT - III

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1. **Annelida:** General characters and classification up to class level with suitable examples; Metamerism in Annelida; vermiculture and vermicomposting.
2. **Arthropoda:** General characters and classification up to class level with suitable examples; Vision in Arthropoda, Metamorphosis in Insects.  
**Cockroach-** External Morphology, Digestive system, Respiratory system, Nervous system. Economic importance of insects.

UNIT - IV

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1. **Mollusca:** General characters and classification up to class level with suitable examples; Economic importance of mollusca.
2. **Echinodermata:** General characters and classification up to class level with suitable examples; Star Fish- External Morphology, Larval forms in Echinoderms.
3. **Hemichordata:** General Characters and Affinities.



**Outcome of the Course:**

1. The student will be able to identify a given invertebrate upto class level.
2. Ability to understand the contribution of Invertebrates in the biodiversity index of any given habitat.
3. Ability to understand and appreciate the ecological and economic importance of invertebrates and vertebrates.
4. Ability to identify and describe external morphology and internal anatomical features of representative invertebrate species.