PRACTICAL -III

ENVIRONMENTAL BIOLOGY AND EVOLUTION

Semester	Subject Code	Category	Practical		Theory	Practical	Credits
			Hrs/ week	Total Hours/ Semester			
II	21CPZO23	Core Practical-III	4	60	Nil	60	4

COURSE OBJECTIVES:

- Isolation and identification of Plankton (Freshwater).
- To understand the mechanisms and factors involving in aquatic system
- To study the interaction and adaptation among species

ENVIRONMENTAL BIOLOGY **50 Hours**

1. Estimation of Aquatic - Primary productivity - Dark and Light bottle.
2. Estimation of Dissolved oxygen, Salinity, Nitrites, Phosphates, Calcium, Silicates and Alkalinity in water samples.
3. Analysis of Industrial effluent - TDS, TSS, BOD, (COD - Demonstration).
4. Collection, isolation and identification of Plankton (Freshwater).
5. Study of sandy, muddy and rocky shore fauna with special reference to the adaptation to the environment (any FOUR).
6. Animal Association - parasitism, mutualism and commensalisms (any ONE/TWO)
7. Visit to:-
    a). Drinking water treatment plant.
    b). Effluent treatment plant
    c). Sewage treatment plant.
    d). Sandy, Muddy and Rocky Shores.

EVOLUTION (Slides / Specimens /Models) **10 Hours**

1. Observation of forelimbs and hindlimbs of vertebrates (Frog, Calotes, Bird and Mammal) to study the common pattern of pentadactyl limb and common ancestry of vertebrates.
2. Observation of fossils to study paleontological evidences of evolution.
3. Observation of leaf insects and stick insects in the museum to study adaptation by cryptic colouration and natural selection.
4. Observation of Monarch and Viceroy butterflies to study Batesian mimicry.

SYLLABUS DESIGNERS

- Dr D.Sasikala, Assistant Professor & HOD
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