PRACTICAL-IV : ENVIRONMENTAL BIOLOGY, IMMUNOLOGYAND MICROBIOLOGY

Semester	Subject Code	Category	Practical		Theory		Practical	Credits
			Hrs/ week	Total Hours/ Semester	Hrs/ week	Total Hours/ Semester		
VI	21CZO62	Practical-IV	3	45	-	-	45	3

A) ENVIRONMENTAL BIOLOGY

1. Estimation of Dissolved Oxygen
2. Estimation of Salinity
3. Estimation of pH
4. Estimation of Free CO_2
5. Estimation of Carbonate and Bicarbonates in Water Samples.
6. Plankton Study- Fresh Water and Marine Plankton.
7. Adaptations of Aquatic and Terrestrial Animals Based on Study of Museum Specimens (Rocky Shore, Sandy Shore, Benthic and Aerial).

ENVIRONMENTAL BIOLOGY-APPLIANCES

1. Rain Gauge,
2. Maximum and Minimum Thermometer
3. Hygrometer
4. Anemometer.
5. Study of Natural Ecosystem and Field Report.

B) IMMUNOLOGY

1. Study of Antigen- Antibody Reaction
2. Human Blood Grouping (ABO and Rh)
3. Study of Prepared Slides of Histology:

a) Thymus
b) Spleen
c) Bone Marrow
d) Lymph Node.

4. Types of Immunoglobins- IgA, IgG, IgM, IgD and IgE.

C. **MICROBIOLOGY**

Sterilization technique- Laminar Air Flow, Incubator and Autoclave.
Demonstration of Media preparation.
Culturing techniques- Spread plate, Streak plate.
Demonstration of Colony Forming Unit (CFU)
Diffusion Techniques- Well Diffusion Method, Disc Diffusion Method.
Zone of Inhibition