BSP555 ENVIRONMENTAL PHYSIOLOGY LAB

Course Outcomes:

After successful completion of the course, students will be able to:

CO 1. Conduct experiments in environmental physiology

CO 2. Determine blood indices, blood pressure and thermal stress.

CO 3. Demonstrate rate of transpiration, effect of temperature on the rate of respiration and plant responses to salinity and metal stress..

CO 4. Know how to check the seed health and effect of salinity on seed germination.

CO 5. Check viability of seeds, inducers and inhibitors of germination.

1. Haematology-

Determination of blood indices

Determination of blood pressure.

2. Respiration-

Estimation of oxygen consumption by the organism under stressed condition (thermal stress).

Demonstration of rate of transpiration by photometry.

Effect of temperature on the rate of respiration.

3. Seed physiology–

Seed health testing.

Determination of percent viability of seeds by germination method.
Germination inducers and inhibitors
Determination of β-amylase activity in germinating seeds.
Effect of salinity on seed germination.

4. Stress Physiology-

Plant responses against salinity and metal stress
Radioisotope methodology and its principles (GM Counter and Scintillation Counter)