

- 3.2 Determination of percent viability of seeds by germination method.
- 3.3 Germination inducers and inhibitors
- 3.4 Determination of  $\beta$ -amylase activity in germinating seeds.
- 3.5 Effect of salinity on seed germination.
- 4. Stress Physiology-
  - 4.1 Plant responses against salinity and metalstress
  - 4.2 Radioisotope methodology and its principles (GM Counter and Scintillation counter)

### **BSP 556 DEVELOPMENTAL BIOLOGY LAB**

#### **Course Outcomes:**

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

- CO 1. Develop practical skills using model organisms in developmental biology
- CO 2. Gain the skills to isolate and mount the imaginal discs, sex comb, genital plate.
- CO 3. Carry out practicals on developmental mutants in *Drosophila* and *Arabidopsis*.
- CO 4. Carry out staining techniques for gametes and embryo.

- 1. Study of model organisms used in developmental Biology.
- 2. Isolation and mounting of imaginal discs.
- 3. Structure of sperms and eggs.
- 4. Isolation and mounting of sex comb and genital plate in *Drosophila*.
- 5. Study of developmental mutants in *Drosophila* and *Arabidopsis*.
- 6. Spiral cleavage and general development in snail.
- 7. Study of hemimetabolous and holometabolous development in insects.
- 8. Life cycle and metamorphosis in frogs.
- 9. Structure of *Drosophila* and chick egg.
- 10. Study of chick embryo by vital staining technique.
- 11. Developmental stages in frog.
- 12. Developmental stages in chick.
- 13. Study of spermatogenesis in rat.

### **BSP 557 NUTRITIONAL BIOLOGY LAB**

#### **Course Outcomes:**

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

- CO 1. Understand and prepare meal plans using food exchange lists for different age groups and physiological conditions
  - CO 2. Create awareness about low-cost nutritional rich food for children.
  - CO 3. Describe different adulteration tests for foods.
  - CO 4. Understand the food spoilage microorganisms.
- 1. Adulteration tests (3 samples- cereal/sugar products, milk/milk products, spices and condiments)
  - 2. Planning balanced diet for reference man and woman using ICMR RDA
  - 3. Planning and preparing two different low-cost weaning foods
  - 4. Planning a diet for PEM and Nutritional anaemia
  - 5. Planning a diet for: Adolescent child, Pregnant woman, Lactating woman, Elderly
  - 6. Estimation of total microbial count of yeast and molds from spoiled food samples