

BSP407 CELL BIOLOGY LAB

After undergoing the course, students will be able to :

CO 1. Acquire skills required in Cell Biology

CO 2. Learn methods to study cell division and cell cycle

CO 3. Develop skills in histological staining techniques isolate the sub-cellular organelles.

CO 4. Perform experiments in cell biology

1. Micrometry and camera lucida drawings

2. Cell (RBC) counting using haemocytometer

3. Study of plasmolysis in cells of *Rheoleaves*.

4. Determination of mitotic index in onion root tips

5. Preparation of tissues for histology, Sectioning & Staining - Differential staining of tissue sections

6. Histochemistry-localization of a) Carbohydrates b) Proteins c) Nucleic acids

7. Hematoxylin staining and study on histology of liver, intestine, stomach, ovary, etc.,

8. Study of mitotic stages in onion root tip

9. Study of meiosis in Onion inflorescence/grasshopper testis

10. Study of chromosomal aberration in *Allium cepa* after chemical induction

11. Cell viability assays

12. Isolation of Sub cellular organelles

13. Measurement of Na-K ATPase in membrane fractions

14. Determination of osmotic fragility of erythrocyte membranes

