

# WEST BENGAL COUNCIL OF HIGHER SECONDARY EDUCATION

## SUBJECT : BIOLOGICAL SCIENCE ( BIOS )

CLASS – XII

PRACTICAL

FULL MARKS: 30

EVALUATION SCHEME.	MARKS
One major experiment. 5.	6
One minor experiment. 2 and 3.	5
Slide preparation. 1 and 4. (Any one)	3
Spotting. (three)	6(2x3)
Practical record+Viva voce	5(3+2)
Investigatory project viva voce	5(3+2)
Total : SEM-I= 12 PRACTICAL CLASSES + SEM-II = 10 PRACTICAL CLASSES ( 14.66 HRS).	30

### A. List of experiments.

1. Prepare a temporary mount to observe pollen germination.
2. Study the plant population density by quadrat method.
3. Study the plant population frequency by quadrat method.
4. Prepare a temporary mount on onion root tip to study mitosis.
5. Isolate DNA from available plant material, such as Spinach, Green pea seeds, Papaya or any other suitable materials.

### B. Study and observe the following. (Spotting)

1. Flowers adapted to pollination by different agencies (Wind, Insects, Birds, etc.).
2. Pollen germination on stigma through a permanent slide.
3. Identification of stages of gamete development i.e., T.S. of Mammalian Testis and TS of Mammalian Ovary through permanent slides.
4. Meiosis in Onion Bud cell or Grasshopper testis through permanent slides.
5. TS of Blastula through permanent slides (Mammalian.)
6. Prepare pedigree charts of any one of the genetic traits, such as rolling of tongue, blood groups, ear lobes, Widow's peak and colour blindness.
7. Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through Permanent slides/Models or virtual images or specimens, Comment on symptoms of diseases that they cause
8. Models, specimen showing symbiotic association in root nodules of leguminous plants, Cuscuta on host, Lichens.
9. Flash card models showing examples of homologous and analogous organs.

[Note: \*22 Hours reserved for Remedial classes, Tutorials and Home Assignments.]