NCERT Class 12

Biology Practical Syllabus

List of Experiments

1. Study of the reproductive parts of different flowers

2. Study of flowers adapted to pollination by different agencies (wind, insect).

3. Study of per cent pollen germination on a slide.

4. Study pollen tube growth on the stigma.

5. Study fruits and seeds of any common fruit (e.g. legume) at different stages of development.

6. Study and identify stages of gamete development in t.s. testis and t.s. ovary

7. Study mitosis in onion root tips (preparation).

8. Study meiosis in onion bud cells and grasshopper testis (permanent slides).

9. Study of t.s. of blastula through permanent slide.

10. Study Mendelian inheritance using seeds of different colours/size of any plant.

11. Prepare pedigree charts for genetic traits such as rolling of tongue, blood groups, widow's peak, colour-blindness.

12. Exercise on controlled pollination – emasculation, tagging and bagging.

13. Stain tissue section for nucleic acids (aceto carmine stain).

14. To identify common disease-causing organism like Ascaris, Entamoeba, Plasmodium, ring worm. Comment on the symptoms of the diseases that they

cause.

15. Collect and study soil from different sites and study them for texture and moisture content.

16. Study the pH and water holding capacity of soil. Correlate with the kinds of plants found in them.

17. Study plants and animals found in dry conditions. Comment upon on their adaptations/ecosystems.

18. Study plants and animals of aquatic conditions. Comment upon on their adaptations/ecosystems.

19. Collect water from different water bodies around you and study them for pH,

clarity and presence of any living organisms.

20. Study the amount of suspended particulate matter in air at the two widely different sites.

21. Study of plant population density by quadrat method.

22. Study of plant population frequency by quadrat method.

23. Study analogous and homologous organs in various plants and animals.

Study/observation of the following (Spotting)

1. Flowers adapted to pollination by different agencies (wind, insect).

2. Pollen germination on stigma through a permanent slide.

3. Identification of stages of gamete development i.e.T.S. testis andT.S. ovary through permanent

slides (from any mammal).

4. Meiosis in onion bud cell or grass hopper testis through permanent slides.

5. T.S. of blastula through permanent slides.

6. Mendelian inheritance using seeds of different colour/size of any plant.

7. Prepared pedigree charts of genetic traits such as rolling of tongue, blood groups, widow's peak,

colour blindness.

8. Exercise on controlled pollination – Emasculation, tagging and bagging.

9. Identification of common disease-causing organisms like Ascaris, Entamoeba, Plasmodium,

ringworm through permanent slides or specimens. Comment on symptoms of diseases that they

cause.

10. Two plants and two animals found in xerophytic conditions. Comment upon their morphological

adaptations.

11. Plants and animals found in aquatic conditions. Comment upon their morphological adaptations.