

Odisha Board Class 12 Biology Practical Syllabus

BIOLOGY - II (Botany) Practical +2 Second Year Science Detailed Syllabus

Major Experiment:

1. Study of the effect of temperature and chemicals (ethanol, acetone, formaldehyde) on leading of pigments in beet root.
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2. Study of plants pigments by paper chromatography.
3. Study of transpiration by Ganong's or Farmer's potometer.
4. Study of relation between transpiration and absorption by T/A apparatus.
5. Effect of different wave length of light on photosynthesis by Wilmott's bubbler.
6. Study of effect of dissolved carbondioxide on photosynthesis by Wilmott's bubbler.
7. Comparative study of rate of transpiration from upper and lower surface of dicot leaf.
8. Collect and study soil from at least two different sites and study them for texture, moisture content, pH and water holding capacity of soil. Correlate with the kinds of plants found in them.
9. Collect water from two different water bodies around you and study them for pH, clarity and presence of any living organisms.
10. Study the presence of suspended particulate matter in air at the two widely different sites.
11. Study of plant population density by quadrat method.
12. Study of plant population frequency by quadrat method.

Minor Experiments:

13. Study of pollen germination on a slide.
14. Study of distribution of stomata on upper and lower surface of a dicot and a monocot leaf.
15. Study of osmosis by potato osmometer.
16. Analysis of samples for verification of Mendelian ratio using Pea seeds or colour beads.
17. Study of plasmolysis.

Spotting:

18. Conditions necessary for seed germination.
19. Types of germination.
20. Phototropism/ Geotropism.
21. Morphological adaptation of hydrophyte and Xerophyte.