## **BIOLOGY**

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## UNIT VI: PRINCIPLES RELATED TO PRACTICAL BIOLOGY

- Study and describe the locally available common flowering plants of the family (Solanaceae) including dissection and display of floral whorls and anther and ovary to show number of chambers. Types of root (Tap and Adventitious); Stem (Herbaceous and woody); Leaf (arrangement, shape, venation, simple and compound).
- 2. Preparation and study of T.S. of dicot and monocot roots and stems (primary).
- 3. Study of distribution of stomata in the upper and lower surface of leaves.
- 4. Test for the presence of sugar, starch, proteins and fats and to detect them in suitable plant and animal materials.
- 5. Separation of plant pigments through paper chromatography.
- 6. To study the rate of respiration in flower buds/leaf tissue and germinating seeds.
- 7. To test the presence of urea in urine.
- To detect the presence of sugar in urine/blood sample.
- 9. To detect the presence of albumin in urine.
- 10. To detect the presence of bile salts in urine.
- 11. Study pollen germination on a slide.
- 12. Preparation and analysis of pedigree charts.
- 13. Collect water from two different water bodies around you and study them for presence of any living organisms.
- 14. Study of plant population density and population frequency by quadrate method.
- 15. Preparation of a temporary mount of onion root tip to study mitosis.
- 16. Study of the effect of different temperatures and three different pH on the activity of salivary

