CBSE Class 10

Science Practical Syllabus

Unit I

1. A. Finding the pH of the following samples by using pH paper/universal indicator
(i) Dilute Hydrochloric Acid
(ii) Dilute NaOH solution
(iii) Dilute Ethanoic Acid solution
(iv) Lemon juice
(v) Water
(vi) Dilute Hydrogen Carbonate solution

B. Studying the properties of acids and bases (HCl & NaOH) on the basis of their reaction with:

- Litmus solution (Blue/Red)
- Zinc metal
- Solid sodium carbonate

2. Performing and observing the following reactions and classifying them into:

A. Combination reaction
B. Decomposition reaction
C. Displacement reaction
D. Double displacement reaction

i) Action of water on quicklime
ii) Action of heat on ferrous sulphate crystals
iii) Iron nails kept in copper sulphate solution
iv) Reaction between sodium sulphate and barium chloride solutions

3. A. Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions:

- $ZnSO_4(aq)$
- $FeSO_4(aq)$
- $CuSO_4(aq)$
- $Al_2(SO_4)_3(aq)$

B. Arranging Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity based on the above result.

4. Study of the following properties of acetic acid (ethanoic acid)

i) Odour
ii) solubility in water
iii) effect on litmus
iv) reaction with Sodium Hydrogen Carbonate

5. Study of the comparative cleaning capacity of a sample of soap in soft and hard water.

Unit II

1. Preparing a temporary mount of a leaf peel to show stomata.

2. Experimentally show that carbon dioxide is given out during respiration.

3. Studying (a) binary fission in Amoeba and (b) budding in yeast and Hydra with the help of prepared slides.

4. Identification of the different parts of an embryo of a dicot seed (Peas, gram or red kidney bean).

Unit III

1. Determination of the focal length of:
i) Concave mirror
ii) Convex lens
by obtaining the image of a distant object.

2. Tracing the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, and angle of emergence and interpret the result.

3. Tracing the path of the rays of light through a glass prism.

Unit IV

1. Studying the dependence of potential difference (V) across a resistor on the current (I) passing through it and determining its resistance. Also, plotting a graph between V and I.

2. Determination of the equivalent resistance of two resistors when connected in series and parallel.