

## SCIENCE

Book Preferred - N.C.E.R.T and living science for Physics , Chemistry and Biology (Published by Ratna Sagar)

### Unit Test -1

Physics	Ch-10	Light Reflection and Refraction
Chemistry	Ch-1	Chemical Reaction and Equation
Biology	Ch-6	Life Processes

### Unit Test -2

Physics	Ch-12	Electricity
Chemistry	Ch-2	Acids, bases and salts
Biology	Ch-7	Control and coordination

### HALF YEARLY TERM

Physics	Ch-10	Light Reflection and Refraction
	Ch-12	Electricity
	Ch-11	Human Eye and Colourful world
Chemistry	Ch-1	Chemical Reaction and Equations
	Ch-2	Acids, Bases and Salts
	Ch-3	Metals and Non Metals
Biology	Ch-6	Life Processes
	Ch-7	Control and Coordination
	Ch-8	How do Organisms Reproduce

### Practicals.

- Physics 1. Studying the dependence of potential difference (V) across a resistor on the current (I) passing through it and determine its resistance. Also plotting a graph between V and I
- Determination of the equivalent resistance of two resistors when connected in series and parallel.
  - Determination of the focal length of
    - Concave mirror
    - Convex lensby obtaining the image of a distant object.
  - Finding the image distance for varying object distances in case of a convex lens and drawing corresponding ray diagrams to show the nature of image formed.
- Biology 1. Preparing a temporary mount of a leaf peel to show stomata.
- Experimentally show that carbon dioxide is given out during respiration.
- Chemistry 1. A. Finding the pH of the following samples by using pH paper / universal indicator.
- Dilute Hydrochloric acid
  - Dilute NaOH solution
  - Dilute Ethanoic Acid solution
  - Lemon Juice
  - Water
  - Dilute Hydrogen Carbonate solution
- B. Studying the properties of acids and bases (HCl and NaOH) on the basis of their reaction with : Unit -I
- Litmus solution (Blue / Red)
  - Zinc metal
  - Solid sodium carbonate
- Performing and observing the following reactions and classifying them into
    - Combination reaction
    - Decomposition reaction
    - Displacement reaction
    - Double displacement reaction
    - Action of water on quicklime
    - Action of heat on ferrous sulphate crystals
    - Iron nails kept in copper sulphate solution
    - Reaction between sodium sulphate and barium chloride solutions.

3. Observing the action of Zn, Fe, Cu and Al metals on the following salt solutions.
- |                    |                         |
|--------------------|-------------------------|
| i. $ZnSO_4$ (aq)   | ii. $FeSO_4$ (aq)       |
| iii. $CuSO_4$ (aq) | iv. $Al_2(SO_4)_3$ (aq) |
- 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):

Unit - I

- |                       |  |
|-----------------------|--|
| i. Odour              | ii. Solubility in water                      |
| iii. Effect on litmus | iv. reaction with sodium Hydrogen carbonate. |

**Unit Test -3**

Physics Ch-13 Magnetic Effect of Electric Current

Chemistry Ch-4 Carbon and Its Compounds

Biology Ch-9 Heredity and Evolution

**ANNUAL TERM**

Chemistry Ch-1 Chemical reactions and equations

Ch-2 Acids, Bases and Salts

Ch-3 Metals and Non Metals

Ch-4 Carbon and Its Compounds

Ch-5 Periodic classification of Elements

Biology Ch-6 Life Processes

Ch-7 Control and Coordination

Ch-8 How do Organisms Reproduce

Ch-9 Heredity and Evolution

Ch-15 Our Environment

Ch-16 Sustainable Management of natural Resources

Physics Ch-10 Light

Ch-11 Human Eye and its colourful world

Ch-12 Electricity

Ch-13 Magnetic Effect of Electric Current

Ch-14 Sources of Energy

**Practicals**

Physics :1. 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, angle of emergence and interpret the result.

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

1. Studying (a) Binary fission in Amoeba, and (b) budding in yeast and Hydra with the help of prepared slides.

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

Chemistry. 1. Study of the comparative capacity of a sample of soap in soft and hard water

Note : 1. Both annual and half yearly activities along with whole syllabus will come in annual examination

2. Prepare question / answer from Reference book also.

3. In modal test whole syllabus will come.