

## 4. Pre Training Requisite -

### INSTRUCTIONS:

- i) Every participant needs to come prepared for transaction of **any one topic** from the list given.
- ii) The area (Physics/Chemistry/ Biology) can be decided on the basis of their subject in graduation/post graduation.
- iii) The topic can be chosen by the participants according to the **classes they teach.**
- iv) **Actual classroom teaching** will have to be done for a time period of **15-20 minutes.**
- v) Any teaching aid used by the teacher in the above exercise is to be carried along with.

### LIST OF TOPICS:

#### PHYSICS

- |  |             |
|--|-------------|
| 1. SOUND   | VII, IX     |
| 2. MAGNETS & MAGNETIC EFFECTS OF CURRENT                 | VI, VIII, X |
| 3. LIGHT (REFLECTION & REFRACTION)                       | VI – X      |
| 4. GRAVITATION   | VIII, IX    |
| 5. MOTION & LAWS OF MOTION<br>(Graphical interpretation) | VII, IX     |
| 6. CHEMICAL EFFECTS OF CURRENT                           | VIII, X     |
| 7. ELECTRIC POWER  | X           |
| 8. WORK ENERGY & POWER                                   | VI, IX      |

## CHEMISTRY

1. SEPARATION OF SUBSTANCES VII
2. IUPAC NOMENCLATURE OF HYDROCARBONS ( ALKANE, ALKENE & ALKYNE) X
3. IUPAC NOMENCLATURE OF FUNCTIONAL GROUPS ( ALCOHOL, ALDEHYDE, KETONE & CARBOXYLIC ACIDS ) X
4. PROPERTIES OF METALS AND NON METALS VIII X
5. MOLE CONCEPT IX
6. STRUCTURE OF ATOM :- VALENCY VII IX
7. BALANCING OF CHEMICAL EQUATONS VIII X
8. REDOX REACTIONS-CONCEPT OF OXIDATION NUMBER X
9. POLYMERS : NATURAL & SYNTHETHIC VIII
- 10.ACIDS , BASES & SALTS – CHARACTERISTICS VIII X

## BIOLOGY

1. HEREDITY	X
2. EVOLUTION	X
3. EXCRETION IN HUMANS	VII, X
4. TRANSPORTATION IN HUMANS	VII, X
5. TRANSPORTATION IN PLANTS	VII, X
6. IMMUNITY – HOW IT WORKS?	VIII, IX
7. BASIS OF ANIMAL CLASSIFICATION	IX
8. PLANT TISSUES	IX
9. CELL MEMBRANE –TRANSPORT	IX
10.CROP PRODUCTION	VIII
11.PHOTOSYNTHESIS	VI, X
12.RESPIRATION IN HUMANS	VII, X
13.PLANT NUTRITION	VII
14.PLANTS	VI