

## Group -A

- Convert 47°C into Kelvin scale.
- Write the rules for sign convention.
- Explain briefly the reason for the blue of the sky.
- Explain Faraday's law of induction with the help of activity.

## Group -B

- Write the electronic configurations of the following. (i) Chlorine (ii) Copper
- Comment on the position of hydrogen in periodic table.
- Suggest an experiment to prove that the presence of air and water are essential for corrosion. Explain the procedure.
- How do you condemn the use of alcohol as a social practice?

## Section - II

4 x 1 = 4

- What are the affecting factors of evaporation?
- Ravi is suffering from Myopia. Which type of lens do you prefer for him?
- If two equal resistances having  $5\Omega$  are connected in series combination. Find the resultant resistance?

12. Balance the chemical equation.  $C_2H_6 + O_2 \rightarrow CO_2 + H_2O$

13. An atom is represented by Lewis dot structure as shown in the figure. Identify the atom.



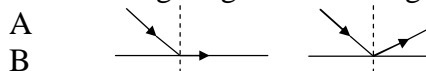
14. Write the names of any two ores having Sulphur. (Sulphide ores)

## Section - III

4 x 4 = 16

## Group -A

- How do you appreciate the role of spherical mirrors in daily life?
- Interpret the following diagrams when light ray gets refraction.



- The focal length of a converging lens is 20cm. An object is 60cm from the lens. Where will the image be formed and what kind of image is it?
- Explain the working of electric motor with a neat diagram.

## Group -B

- A light yellow colour substance (some quantity) on a watch glass is put in the sun light. It changes into gray colour powder.
  - What is the light yellow colour substance?
  - What is the gray colour substance?
  - Which type of chemical reaction it is?
  - Write the chemical equation for the reaction.

20. Moeller's diagram follows Aufbau's rule. – How can you explain this?

- Explain the formation of  $N_2$  molecule with a diagram using valence bond theory.
- Write the differences between alkanes, alkenes and alkynes.

## Section - IV

1 x 5 = 5

- Draw a neat diagram that represents the experiment to verify Ohm's law.
- Draw a neat diagram showing acid solution in water conducts electricity.