

(SECTION-B)
(Short Answers)

Note: Answer any EIGHT of the following questions. Each question carrier 03 marks.

- Q.1 Differentiate between the Physical and analytical chemistry.
- Q.2 Describe relationship between empirical and molecular formula. Explain with examples.
- Q.3 Balance the given equations by inspection method:
(i) $\text{NH}_3 + \text{O}_2 \rightarrow \text{NO} + \text{H}_2\text{O}$ (ii) $\text{CO} + \text{O}_2 \rightarrow \text{CO}_2$
(iii) $\text{KClO}_3 \rightarrow \text{KCl} + \text{O}_2$
- Q.4 What are limitations of Bohr's Atomic model.
- Q.5 Identify that which halogens exist as gases, liquid and solid.
- Q.6 Write characteristics of ionic compounds.
- Q.7 Define the allotropy with examples.
- Q.8 Define the following:
(i) Boiling point (ii) melting point (iii) Freezing Point
- Q.9 Differentiate between the saturated and unsaturated solution?
- Q.10 Define oxidizing and reducing agent with examples.
- Q.11 Define oxidizing and reducing agent with examples.
- Q.12 How many moles are required to prepare 40gm H_2SO_4
- Q.13 What to you mean by chemical species, explain ion, molecular and free radical?
- Q.14 How many protons, neutrons and electrons are present in the following?
- Q.15 Define metallic bonds are formed?
- Q.16 The pressure of a sample gas is 8 atm and volume is 15 liters. If the pressure is reduced to 6 atm, what is the volume?
- Q.7 Define the term solubility. How does nature of solute and solvent determine the extent of dissolution?
- Q.18 Explain process of electrolysis in electrolytic cell.