



**Chapter – 1 (Chemical Reactions & Equations)**

1. What is meant by chemical reaction? Explain with the help of an example.
2. What do you understand by exothermic and endothermic reaction.
3. Write the balanced equation for the followings:-
  - a) Magnesium Carbonate react with HCl to produce magnesium chloride, carbon dioxide and water.
  - b) Sodium hydroxide reacts with sulphuric acid to produce sodium sulphate and water.
4. Why should magnesium ribbon be cleaned before burning in air?
5. Why does the colour of copper sulphate solution change when an iron nail is dipped in it?
6. Give an example of a double displacement reaction.
7. Identify the substances that are oxidised and the substances that are reduced in the following reactions:-
  - i)  $4\text{Na} + \text{O}_2 \longrightarrow 2\text{Na}_2\text{O}$
  - ii)  $\text{CuO} + \text{H}_2 \longrightarrow \text{Cu} + \text{H}_2\text{O}$
8. What do you mean by precipitation reaction? Explain by giving example.
9. Oil and fats containing food items are flushed with nitrogen why?
10. Explain the following terms with one example each-
  - i) Corrosion
  - ii) Rancidity

**Chapter – 2 ( Acids, Bases and Salts)**

1. Why should curd and sour substances not be kept in brass and copper vessels?
2. Which gas is usually liberated? When an acid reacts with metal. with example.
3. Why does an aqueous solution of an acid conduct electricity?
4. Why does dry HCl gas not change the colour of dry litmus paper?
5. While diluting an acid, Why is it recommended that the acid should be added to water and not water to the acid.
6. Why does distilled water not conduct electricity whereas rain water does.
7. How is bleaching powder formed?
8. How is washing soda formed?
9. A milkman adds a very small amount of baking soda to fresh milk
  - a) Why does he shift the pH of fresh milk from 6 to slightly Alkaline.
  - b) Why does this milk take a longer time to set as curd?
10. Plaster of Paris should be stored in a moisture proof container. Explain Why?

**Chapter – 3(Metal and Non-metals)**

1. Why is sodium kept immersed in Kerosene oil?
2. Write equations for the reactions of:-
  - i) Iron with steam
  - ii) Calcium with water,
  - iii) Potassium with water
3. Show the formation of  $\text{Na}_2\text{O}$  and  $\text{MgO}$  by the transfer of electrons.
4. Define the terms:-
  - i) minerals
  - ii) ore
  - iii) Gangue
5. What are Alloys?
6. What are amphoteric oxide?
7. In the electrolytic refining of metal M, What would you take as the anode, the cathode, and the electrolyte.
8. State two ways to prevent the rusting of iron.
9. What type of oxides are formed when non metals combine with oxygen?
10. Differentiate between metals and non metals on the basis of their properties.

## Chapter – 4 (Carbon and its Compounds)

1. How many structural isomers can you draw for pentane and hexane?
2. Draw the structure of the followings:-
  - i) Ethanoic acid
  - ii) Hexanal
  - iii) Butanone
  - iv) Propanal
3. Why is the conversion of ethanol to ethanoic acid an oxidation reaction?
4. What are oxidising agents?
5. What is homologous series? Explain with an example.
6. How can ethanol and ethanoic acid be differentiated on the basis of their physical and chemical properties?
7. Differentiate between soap and detergents.
8. What is saponification? Write the chemical equation for the reaction involved in this process.
9. What is soap? Name one soap. Describe structure of a soap molecule with the help of a diagram.
10. What happens when ethanoic acid reacts with sodium hydroxide? Write equation.

## Chapter -5 (Periodic Classification of elements)

1. What is Dobereiner's law of triads? Explain with the help of examples.
2. What is Newlands law of octaves? Explain with examples.
3. State Mendeleev's periodic law? Write its three limitations.
4. State modern periodic law? How does the electronic configuration of the atom of an element relate to its position in the modern periodic table.
5. Which are the metals among the first ten elements?
6. N and P belong to group 15 of the periodic table. Write electronic configuration of the two elements which is more electronegative.
7. What property do all elements in the same column of the periodic table as boron have in common?
8. Write properties of groups.
9. Write properties of periods.
10. Write the difference between Mendeleev's periodic table and Modern periodic table.