## **Answer Key Practice Question – Set 1**

**Subject – Chemistry** 

Class - X

Q1) Assertion: Silver chloride left open in sunlight turns brown.

Reason: The type of reaction involved is decomposition.

**(1)** 

Ans. (iv)

- Q2) Identify the substance oxidised and the substance reduced in each of the following reactions.
- (i)  $CuO + H_2 \rightarrow Cu + H_2O$

(ii) 
$$MnO_2 + 4HCl \rightarrow MnCl_2 + 2H_2O + Cl_2$$
 (2)

Ans. i) Substance oxidised – H<sub>2</sub>

**Substance Reduced – CuO** 

ii) Substance oxidised - HCl

**Substance Reduced – MnO<sub>2</sub>** 

- Q3) i) Limestone <u>heat</u> A + B
- ii)  $A + H_2O \rightarrow Slaked lime$
- a) Identify the exothermic and endothermic reactions from the above.
- b) Identify B. Write the balanced chemical equation when B reacts with slaked lime. (2)

Ans. a) Reaction i) is endothermic and

Reaction ii) is exothermic

- b) B Carbon dioxide or CO<sub>2</sub>
- (ii)  $Ca(OH)_2 + CO_2 \rightarrow CaCO_3 + H_2O$
- Q4) 2g of ferrous sulphate crystals are heated in a dry boiling tube.
- (i) List any two observations.
- (ii) Write the chemical equation for the reaction.

**(2)** 

Ans. (i) •Green colour of FeSO<sub>4</sub> disappears and brown solid is formed.

- Smell of burning sulphur is obtained.
- (ii)  $2\text{FeSO}_4 \rightarrow \text{Fe}_2\text{O}_3 + \text{SO}_2 + \text{SO}_3$
- Q5) State the type of each of the following reactions stating the reason for your answers:
- (a)  $Fe_2O_3 + 2Al \rightarrow Al_2O_3 + 2Fe$

(b) 
$$Pb(NO_3)_2 + 2KI \rightarrow PbI_2 + 2KNO_3$$
 (2)

Ans. (a) – Displacement, as Al, a more reactive metal displaces a less reactive metal iron.

Or Redox reaction, as Al has reduced iron(II) oxide to iron.

(b) – Double Displacement, as there is an exchange of ions between reactants.

Or Precipitation as precipitate of lead iodide is formed.

Q6) (a) A silver article generally turns black when kept in the open for a few days. The article, when rubbed with toothpaste again, starts shining.

Why do silver articles turn black when kept in the open for a few days? Define the phenomenon involved.

(b) What type of chemical reaction is involved when oily foods get rancid? (3)

Answer. a) The silver article turns black when kept in the air due to formation of silver sulphide  $Ag_2S$ .

This phenomenon is called corrosion which is defined as the process of tarnishing of metals due to reaction with atmospheric agents like oxygen, moisture etc.

- b) Oxidation.
- Q7) The following diagram displays a chemical reaction.



- (a) How will the colour of the salt change?
- (b) Name the reddish-brown gas evolved.
- (c) Write the chemical equation of the reaction that takes place. Mention the state symbols for the reactants and products involved. (3)

Ans. (a) From white to yellow.

- (b) nitrogen dioxide.
- (b)  $2Pb(NO_3)_2(s) \rightarrow 2PbO(s) + 4NO_2(g) + O_2(g)$ .