

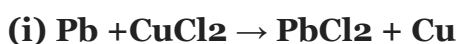
# CBSE Class 10 Science Important Questions for Chapter 1 Chemical Reactions and Equations

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## Class 10 Science Chemical Reaction and Equations MCQs (1 Marks)

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**1. Which among the following is (are) double displacement reaction(s)?**



a) (i) and (iv)

b) (ii) only

c) (i) and (ii)

d) (iii) and (iv)

**2. Which of the following is not a physical change?**

a) Boiling of water to give water vapour

b) Melting of ice to give water

c) Dissolution of salt water

d) Combustion of liquefied Petroleum Gas (LPG)

**3. Which of the following observations help(s) us to determine that a chemical change has taken place?**

a) Change in temperature

b) Evolution of gas

c) Change in colour

d) All of these

**4. The following reaction is used for preparation of oxygen gas in the laboratory**  $\text{Heat } 2\text{KClO}_3(\text{s}) \rightarrow 2\text{KCl}(\text{s}) + 3\text{O}_2(\text{g})$

**Which of the following statement(s) is (are) correct about the reaction?**

- a) It is a decomposition reaction and endothermic in nature.
- b) It is a combination reaction
- c) It is a decomposition reaction and is accompanied by release of heat.
- d) It is a photo chemical decomposition reaction and exothermic in nature.

**5. Chemically the rust is**

- a) Ferric sulphate
- b) Hydrated ferrous oxide
- c) Ferric oxide
- d) Hydrated ferric oxide

**Ans:** 1. b) 2.d) 3.d) 4.a) 5. d)

**Chemical Reaction and Equations Important Question of 1 Marks Very Short Answer Questions**

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**1. Identify in the following reaction:**



- a) The substance oxidised and**
- b) The substance reduced.**

**Ans:**

- A. Carbon is oxidized to CO.
- B. PbO is getting reduced to Pb.

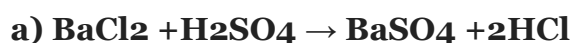
**2. A shiny brown coloured element “x” on heating in air becomes black in colour. Name the element “x” and the black coloured compound formed.**

**Ans:** Element ‘x’ is Copper and the black coloured compound is cupric oxide CuO

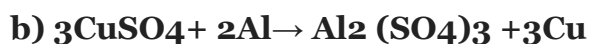
**Chemical Reaction and Equations Important Question of 2 Marks Short Answer Type Questions**

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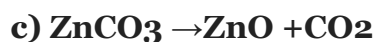
**1. Classify the following reaction as combination, decomposition, displacement & double displacement reactions:**



**Ans:** Double displacement reaction.



**Ans:** Displacement reaction.



**Ans:** Decomposition reaction.



**Ans:** Combination reaction.

## **2. What is a precipitation reaction? Give an example.**

**Ans:** Reaction in which an insoluble substance or precipitate is formed  $\text{Na}_2\text{SO}_4 + \text{BaCl}_2 \rightarrow \text{BaSO}_4 + 2\text{NaCl}$

## **Chemical Reaction and Equations Important Question of 3 Marks Short Answer Type Questions**

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**1. Give an example, each for thermal decomposition and photochemical decomposition reactions. Write balanced equation for the same.**

**Ans:** Thermal decomposition – Heating of lime stone.

$\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$  Photochemical decomposition – Action of light on silver bromide.  
 $2\text{AgBr} \rightarrow 2\text{Ag} + \text{Br}_2$

## **Chemical Reaction and Equations Important Question of 5 Marks Very Long Answer Type Questions**

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**1. (i) Write chemical equations for the following and balance them.**

**a) Zinc carbonate(s)  $\rightarrow$  Zinc oxide + Carbon dioxide**

**Ans:**  $\text{ZnCO}_3 \rightarrow \text{ZnO} + \text{CO}_2$

**b) Potassium bromide (aq) + Barium iodide (aq)  $\rightarrow$  Potassium iodide + Barium bromide.**

**Ans:**  $2\text{KBr} + \text{BaI}_2 \rightarrow 2\text{KI} + \text{BaBr}_2$

**c) Nitrogen + Hydrogen  $\rightarrow$  Ammonia**

**Ans:**  $\text{N}_2 + 3\text{H}_2 \rightarrow 2\text{NH}_3$

**ii) What happens when electricity is passed through acidified water?**

**Ans:** Decomposition of water takes place resulting in the formation of hydrogen and oxygen