

CBSE TEST PAPER-05

SCIENCE & TECHNOLOGY (Class-10)

Chapter 1. Chemical Reaction and Equations

1. A reaction takes place with the absorption of heat energy. What is this reaction called? (1 mark)
2. Name 2 anti-oxidants used in fat & oil containing foods to prevent rancidity. (1 mark)
3. What is chemical equation? (1 mark)
4. Calcium oxide reacts with water to form calcium hydroxide. Name chemical reaction? (1 mark)
5. Why the colour of copper sulphate solution change when an iron nail is dipped in it? (2 marks)
6. Identify the substance that are oxidized and the substances which are reduced in the following reactions. (2 marks)
 - (i) $4\text{Na (s)} + \text{O}_2 \text{ (g)} \rightarrow 2\text{Na}_2\text{O (s)}$
 - (ii) $\text{CuO (s)} + \text{H}_2 \text{ (g)} \rightarrow \text{Cu (s)} + \text{H}_2\text{O (l)}$
7. What is a balanced chemical equation? Why should chemical equations be balanced? (2 marks)
8. Why is respiration considered an exothermic reaction? Explain. (2 marks)
9. "Write the balanced chemical equations for the following and identify the type of reaction in each case: (3 marks)
 - (i) Barium chloride (aq) + potassium sulphate (aq) \rightarrow Barium sulphate (s) + Potassium chloride (aq)
 - (ii) Zinc carbonate (s) \rightarrow Zinc oxide (s) + Carbon dioxide (g)
 - (iii) Magnesium (s) + Hydrochloric acid (aq) \rightarrow Magnesium chloride (aq) + Hydrogen(g)
10. Translate the following statements into chemical equations and then balance them. (3 marks)
 - (i) Hydrogen gas combines with nitrogen to form ammonia.
 - (ii) Hydrogen sulphide gas burns in air to give water and sulphur dioxide.
 - (iii) Barium chloride reacts with aluminium sulphate to give aluminium chloride and a precipitate of barium sulphate.