

CBSE TEST PAPER-01

SCIENCE & TECHNOLOGY (Class-10)

Chapter 1. Chemical Reaction and Equations

1. When iron is heated with sulphur, iron sulphide is formed. Name the reaction. (1 mark)
2. Aluminium metal displaces iron from ferric oxide (Fe_2O_3) giving aluminium oxide and iron. Which is more reactive aluminium or iron? (1 mark)
3. The taste and smell of food changes when kept for long time in open. What is it called? (1 mark)
4. What is the general name of the chemicals which are added to fat and oil containing foods to prevent the development of rancidity. (1 mark)
5. A solution of a substance 'X' is used for white washing: (2 marks)
 - (i) Name the substance 'X' and write its formula.
 - (ii) Write the reaction of the substance 'X' named in (i) above with water.
6. Write the balanced chemical equation to represent the following statements: (2 marks)
 - (i) Carbon (coke) burns in air to form carbon dioxide.
 - (ii) A piece of sodium metal on putting in water forms caustic soda and hydrogen gas
7. Identify the substances that are oxidised and the substances that are reduced in the following reactions: (2 marks)
 - (i) $4\text{Na (s)} + \text{O}_2\text{ (g)} \longrightarrow 2\text{Na}_2\text{O (s)}$
 - (ii) $\text{CuO (s)} + \text{H}_2\text{ (g)} \longrightarrow \text{Cu (s)} + \text{H}_2\text{O (l)}$
8. Explain the term corrosion with an example (2 marks)
9. Explain the following in terms of gain or loss of oxygen with one example of each:
 - (i) oxidation
 - (ii) reduction
10. Why is photosynthesis considered an endothermic reaction? (2 marks)
11. Write the balanced equation for the following chemical reactions:
 - (i) Hydrogen + Chlorine \longrightarrow Hydrogen Chloride
 - (ii) Barium Chloride + Aluminium Sulphate \longrightarrow Barium Sulphate + Aluminium Chloride
 - (iii) Sodium + Water \longrightarrow Sodium Hydroxide + Hydrogen (3 marks)
12. Magnesium is more reactive than copper or iron but iron is more reactive than copper:
 - (i) A solution of magnesium sulphate is put into copper pot.
 - (ii) A solution of copper sulphate is put into iron pot.
 - (iii) A solution of magnesium sulphate is put into iron pot.Which of the above pots will get damaged? Why? What is this reaction called? (3 marks)