

CBSE TEST PAPER-03

SCIENCE & TECHNOLOGY (Class-10)

Chapter 1. Chemical Reaction and Equations

1. When hydrogen burns in oxygen, water is formed and when water is electrolysed, then hydrogen and oxygen are produced. What type of reaction take place: (1 mark)
(i) in first case (ii) in second case
2. Why do we apply paint on iron articles? (1 mark)
3. Oil and fat containing food items are flushed with nitrogen. Why? (1 mark)
4. How is the salt solution in water indicated in a chemical reaction? (1 mark)
5. Aluminium burns in chlorine to form aluminium chloride. Write a balanced equation for this reaction. (1 mark)
6. What do you mean by a precipitation reaction? Explain giving an example. (2 marks)
7. What is balanced chemical equation? What should chemical equations be balanced (2 marks)
8. Why are decomposition reactions called the opposite of combination reaction? Explain with equations of these reactions. (2 marks)
9. When a green iron salt is heated strongly, its colour finally changes to brown and smell of burning sulphur is given out: (2 marks)
(i) Name the iron salt and name the type of reaction that takes place during the heating of iron salt.
(ii) Write a chemical equation for the reaction involved.
10. What happens when a zinc strip is dipped into a copper sulphate solution? (2 marks)
(i) Write the equation for the reaction that takes place.
(ii) Name the type of reaction involved.
11. Why should a magnesium ribbon be cleaned before burning in air? (2 marks)
12. What do you understand by exothermic and endothermic reaction? Give one example of an exothermic reaction and one of an endothermic reaction. (3 marks)
13. (i) What is meant by 'reduction' in terms of oxygen?
(ii) In the reaction represented by the following equation:
$$\text{CuO (s)} + \text{H}_2 \text{ (s)} \longrightarrow \text{Cu (s)} + \text{H}_2\text{O (l)}$$

(a) Name the substance oxidised (b) Name the substance reduced
(c) Name the oxidizing agent (d) Name the reducing agent. (5 marks)

Or

Write an activity to show the electrolysis of water, as an example of decomposition reaction.