

CBSE TEST PAPER-04

SCIENCE & TECHNOLOGY (Class-10)

Chapter 3. Metal and Non-metals

1. Why is sodium kept immersed in kerosene oil? (1 mark)
2. Why are carbonate and sulphide are usually converted into oxides during the process of extraction. (1 mark)
3. Write the name of the process in reaction to metallurgy whereby an ore is heated strongly in absence of air. (1 mark)
4. Draw the electron-dot structures for:
(i) H_2S (ii) F_2 (1 mark)
5. Why copper is used to make hot water tanks but steel (an alloy of iron) is not? (1 mark)
6. An element reacts with oxygen to form an oxide which dissolves in dilute hydrochloric acid. The oxide formed also turns a solution of red litmus blue. Is the element a metal or a non-metal? Explain your answer. (2 marks)
7. Define the term 'alloy'. Write two advantages of making alloys. (2 marks)
8. What would you observe when zinc is added to a solution of iron (II) sulphate? Write the chemical reaction that takes places. (2 marks)
9. Why do ionic compounds have high melting points? (2 marks)
10. You must have seen tarnished copper vessels being cleaned with lemon or tamarind juice. Explain why these sour substances are effective in cleaning the vessels. (2 marks)
11. Give three methods to prevent corrosion of metals. (3 marks)
12. Write a balanced chemical equation for the reaction of the following metals with water:
(i) Ca (ii) Zn (iii) Fe (3 marks)
13. What will happen if a (3 marks)
(i) Strip of zinc is immersed in a solution of copper sulphate.
(ii) Strip of copper is kept immersed in a solution of silver nitrate.
(iii) Iron nails are put into copper sulphate solution.
14. Explain why: (5 marks)
(i) Conc. HNO_3 can be stored in aluminium container.
(ii) Aluminium is used for making transmission wires.
(iii) 24 carat gold can not be used for making ornaments.
(iv) Aluminium is used for making cooking utensils.
(v) Metals generally do not form compounds with hydrogen.