

1. Which of the following is a displacement reaction?

- (a) $\text{MgCO}_3 \longrightarrow \text{MgO} + \text{CO}_2$
(b) $2\text{Na} + 2\text{H}_2\text{O} \longrightarrow 2\text{NaOH} + \text{H}_2$
(c) $2\text{H}_2 + \text{O}_2 \longrightarrow 2\text{H}_2\text{O}$
(d) $2\text{Pb}(\text{NO}_3)_2 \xrightarrow{\text{Heat}} 2\text{PbO} + 4\text{NO}_2 + \text{O}_2$

2. Magnesium ribbon is rubbed before burning because it has a coating of

- (a) basic magnesium carbonate (b) basic magnesium oxide
(c) basic magnesium sulphide (d) basic magnesium chloride

3. Oxidation is a process which involves

- (a) addition of oxygen (b) addition of hydrogen
(c) removal of oxygen (d) removal of oxygen

4. The process of reduction involves

- (a) addition of oxygen (b) addition of hydrogen
(c) removal of oxygen (d) removal of hydrogen

5. Give the ratio in which hydrogen and oxygen are present in water by volume.

- (a) 1:2 (b) 1:1 (c) 2:1 (d) 1:8

6. $\text{MnO}_2 + 4\text{HCl} \rightarrow 2\text{H}_2\text{O} + \text{Cl}_2$

Identify the substance oxidized in the above equation.

- (a) MnCl_2 (b) HCl (c) H_2O (d) MnO_2

7. A substance 'X' is used in white-washing and is obtained by heating limestone in the absence of air. Identify 'X'.

- (a) CaOCl_2 (b) $\text{Ca}(\text{OH})_2$ (c) CaO (d) CaCO_3

8. When Ag is exposed to air it gets a black coating of

- (a) AgNO_3 (b) Ag_2S (c) Ag_2O (d) Ag_2CO_3

9. Which of the following is an endothermic process?

- (a) Dilution of sulphuric acid (b) Sublimation of dry ice
(c) Condensation of water vapours (d) Respiration in human beings

10. Which one of the following salts does not contain water of crystallisation?

- (a) Blue vitriol (b) Baking soda (c) Washing soda (d) Gypsum

11. What is formed when zinc reacts with sodium hydroxide?

- (a) Zinc hydroxide and sodium (b) Sodium zincate and hydrogen gas
(c) Sodium zinc-oxide and hydrogen gas (d) Sodium zincate and water

12. Tomato is a natural source of which acid?

- (a) Acetic acid (b) Citric acid (c) Tartaric acid (d) Oxalic acid

13. $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ is

- (a) washing soda (b) baking soda (c) bleaching powder (d) tartaric acid

14. How many water molecules does hydrated calcium sulphate contain?