Chapter 1 Chemical Reactions and Equations

1. Which of the following is a displacement reaction?

(a) $MgCO_3 \longrightarrow MgO + CO_2$

(b)
$$2Na + 2H_2O \longrightarrow 2NaOH + H_2$$

(c) $2H_2 + O_2 \longrightarrow 2H_2O$

(d)
$$2Pb (NO_3)_2 \xrightarrow{Heat} 2PbO + 4NO_2 + O_2$$

Answer/Explanation

Answer: b

Explanation: Reason: Here sodium (Na) displaces to form sodium hydroxide.

- 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

Answer

Answer: a

- 3. Which of the following statements about the given reaction are correct? 3Fe (s) + $4H_2O$ (g) \rightarrow Fe₃O₄ (s) + $4H_2$ (g)
- (i) Iron metal is getting oxidised
- (ii) Water is getting reduced
- (iii) Water is acting as reducing agent
- (iv) Water is acting as oxidising agent
- (a) (i), (ii) and (iii)
- (b) (in) and (iv)
- (c) (i), (ii) and (iv)
- (d) (ii) and (iv)

Answer

Answer: c

- 4. Which of the following are exothermic processes?
- (i) Reaction of water with quick lime
- (ii) Dilution of an acid
- (iii) Evaporation of water
- (iv) Sublimation of camphor (crystals)
- (a) (i) and (ii)
- (b) (ii) and (iii)

- (c) (i) and (iv) (d) (ii) and (iv)

Answer/ Explanation

Answer: a

Explanation: Reason: In both the cases, heat energy is evolved.

- 5. Oxidation is a process which involves
- (a) addition of oxygen(b) addition of hydrogen(c) removal of oxygen
- (d) removal of hydrogen

Answer

Answer: a