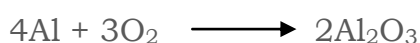


QUIZ: TYPES OF CHEMICAL REACTIONS

1. Identify the decomposition reaction?

- (a) $2\text{Pb}(\text{NO}_3)_2 \longrightarrow 2\text{PbO}(\text{s}) + 4\text{NO}_2 + \text{O}_2$
 (b) $\text{AgNO}_3 + \text{NaCl} \longrightarrow \text{AgCl} + \text{NaNO}_3$
 (c) $\text{Ca}(\text{OH})_2 + \text{CO}_2 \longrightarrow \text{CaCO}_3 + \text{H}_2\text{O}$
 (d) $\text{CH}_4 + \text{Cl}_2 \longrightarrow \text{CH}_3\text{Cl} + \text{HCl}$

2. Which of the following is correct about the reaction

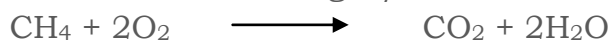


Options	Type of reaction	Species oxidized/reduced
(a)	Decomposition	Al is reduced
(b)	Combination	Al is oxidized
(c)	Double displacement	Al is oxidized
(d)	Combination	Al is reduced

3. Match the chemical reactions with their types:

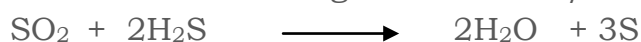
- (A) Combination (P) $\text{Cu} + 2\text{AgNO}_3 \longrightarrow \text{Cu}(\text{NO}_3)_2 + 2\text{Ag}$
 (B) Decomposition (Q) $\text{BaCl}_2 + \text{CuSO}_4 \longrightarrow \text{CuCl}_2 + \text{BaSO}_4$
 (C) Displacement (R) $2\text{Mg} + \text{O}_2 \longrightarrow 2\text{MgO}$
 (D) Double displacement (S) $\text{PbCO}_3 \longrightarrow \text{PbO} + \text{CO}_2$

4. Which of the following is/are correct for the reaction



- (a) Methane is reduced and oxygen is oxidized
 (b) Methane is oxidized and oxygen is reduced
 (c) Methane is an oxidizing agent.
 (d) Oxygen is an oxidizing agent.

5. Which of the following statements is/are correct about the reaction:



- (a) Sulphur dioxide is oxidised
 (b) Hydrogen sulphide is reduced
 (c) Sulphur dioxide is reduced to sulphur

(d) Hydrogen sulphide is oxidised to sulphur

Answers:

1. (a)

Explanation: In (a), one reactant, lead nitrate breaks down to simpler products, namely lead oxide, nitrogen dioxide and oxygen.

2. (b)

Explanation: It is a combination reaction in which aluminium and oxygen combine together to form a compound. Also, aluminium gains oxygen & is oxidized to aluminium oxide.

3.

(a) A — R

(b) B — S

(c) C — P

(d) D — Q

Note for Teacher: Use different sets of reactions for their classification in different types.

4. (b) & (d)

Explanation: Methane gains oxygen and is oxidized to carbon dioxide. Oxygen is reduced to water as it gains hydrogen from methane.

5. (c) & (d)

Explanation: In the above reaction, there are three atoms of sulphur, two sulphur atoms arise by the oxidation of hydrogen sulphide(loss of hydrogen) and one atom arise by the reduction of sulphur dioxide(loss of oxygen).