

Q.1. In the balanced equation -

$a\text{Fe}_2\text{O}_3 + b\text{H}_2 \longrightarrow c\text{Fe} + d\text{H}_2\text{O}$ The values of a,b,c,d are respectively -

- (A) 1,1,2,3 (B) 1,1,1,1
(C) 1,3,2,3 (D) 1,2,2,3

Q.2. Which of the following reactions is not balanced ?

- (A) $2\text{NaHCO}_3 \longrightarrow \text{Na}_2\text{CO}_3 + \text{H}_2\text{O} + \text{CO}_2$
(B) $2\text{C}_4\text{H}_{10} + 12\text{O}_2 \longrightarrow 8\text{CO}_2 + 10\text{H}_2\text{O}$
(C) $2\text{Al} + 6\text{H}_2\text{O} \longrightarrow 2\text{Al}(\text{OH})_3 + 3\text{H}_2$
(D) $4\text{NH}_3 + 5\text{O}_2 \longrightarrow 4\text{NO} + 6\text{H}_2\text{O}$

Q.3. Neutralization reaction is an example of -

- (A) Exothermic reaction
(B) Endothermic reaction
(C) Oxidation
(D) None of these

Q.4. Which of the following statements is/are true ?

- (A) The total mass of the substance remains same in a chemical change.
(B) A chemical change is permanent and irreversible.
(C) A physical change is temporary and reversible.
(D) All the these.

Q.5. In the reaction $\text{FeSO}_4 + x \longrightarrow \text{Na}_2\text{SO}_4 + \text{Fe}(\text{OH})_2$, x is -

- (A) Na_2SO_4 (B) H_2SO_4
(C) NaOH (D) None of these

Q.6. Which of the following equations is representing combination of two elements?

- (A) $\text{CaO} + \text{CO}_2 \longrightarrow \text{CaCO}_3$
(B) $4\text{Na} + \text{O}_2 \longrightarrow 2\text{Na}_2\text{O}$
(C) $\text{SO}_2 + 1/2\text{O}_2 \longrightarrow \text{SO}_3$
(D) $2\text{Na} + 2\text{H}_2\text{O} \longrightarrow 2\text{NaOH} + \text{H}_2$

Q.7. Which of the following equations is not an example of single displacement reaction?

- (A) $2\text{Al} + \text{Fe}_2\text{O}_3 \longrightarrow \text{Al}_2\text{O}_3 + 2\text{Fe}$
(B) $\text{Ca} + \text{Cl}_2 \longrightarrow \text{CaCl}_2$
(C) $2\text{KI} + \text{Cl}_2 \longrightarrow 2\text{KCl} + \text{I}_2$
(D) $2\text{Na} + 2\text{H}_2\text{O} \longrightarrow 2\text{NaOH} + \text{H}_2$

Q.8. Match the following -

Column A	Column B
Types of chemical reaction	Chemical equations

- (a) Combination (i) $\text{CaCO}_3 \xrightarrow{\Delta} \text{CaO} + \text{CO}_2$
(b) Decomposition (ii) $2\text{H}_2 + \text{O}_2 \xrightarrow{\text{Electricity}} 2\text{H}_2\text{O}$
(c) Displacement (iii) $\text{CaO} + \text{CO}_2 \longrightarrow \text{CaCO}_3$
(d) Synthesis (iv) $\text{Fe} + \text{CuSO}_4(\text{aq.}) \longrightarrow \text{FeSO}_4(\text{aq.}) + \text{Cu}$

- (A) a (ii), B (i), C (iv), d (iii)
(B) a (i), b (ii), c (iii), d (iv)
(C) a (iii), b (i), c (iv), d (ii)
(D) a (iii), b (i), c (iii), d (iv)

Q.9. $\text{AgNO}_3(\text{aq}) + \text{NaCl}(\text{aq}) \longrightarrow \text{AgCl}(\text{s}) + \text{NaNO}_3(\text{aq})$

Above reaction is a -

- (A) Precipitation reaction
(B) Double displacement reaction
(C) Combination reaction
(D) (A) and (B) both

Q.10. $\text{H}_2\text{SO}_4 + 2\text{NaOH} \longrightarrow \text{Na}_2\text{SO}_4 + 2\text{H}_2\text{O}$

Above equation is a

- (i) neutralization reaction
(ii) double displacement reaction
(iii) decomposition reaction (iv) addition reaction
(A) (i) to (iv) all (B) (i) and (ii)
(C) (i) and (iii) (D) (ii) and (iv)

Q.11. In the reaction $\text{Mg} + \text{Cl}_2 \rightarrow \text{MgCl}_2$

Chlorine may be regarded as -

- (A) An oxidising agent
- (B) A reducing agent
- (C) A catalyst
- (D) Providing an inert medium

Q.12. Which of the following statements is/are false for oxidation reaction?

- (A) Gain or addition of electronegative radical
- (B) Removal of hydrogen atom.
- (C) Removal or loss of electropositive radical or element
- (D) None of these

Q.13. $\text{CuO} + \text{H}_2 \rightarrow \text{H}_2\text{O} + \text{Cu}$, reaction is an example of -

- (A) Redox reaction
- (B) Synthesis reaction
- (C) Neutralization
- (D) Analysis reaction

Q.14. Which of the following is an example of oxidation reaction ?

- (A) $\text{Sn}^{+2} - 2e^- \rightarrow \text{Sn}^{+4}$
- (B) $\text{Fe}^{+3} + e^- \rightarrow \text{Fe}^{+2}$
- (C) $\text{Cl}_2 + 2e^- \rightarrow 2\text{Cl}^-$
- (D) None of these

Q.15. A substance which oxidises itself and reduces other is known as-

- (A) An oxidising agent
- (B) A reducing agent
- (C) Both of these
- (D) None of these

Q.16. Which of the following is not a decomposition reaction?

- (A) $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$
- (B) $2\text{KClO}_3 \rightarrow 2\text{KCl} + 3\text{O}_2$
- (C) Digestion of food in the body
- (D) $\text{H}_2 + \text{Cl}_2 \rightarrow 2\text{HCl}$

Q.17. Which of the following is a displacement reaction?

- (A) $\text{CaCO}_3 \rightarrow \text{CaO} + \text{CO}_2$
- (B) $\text{CaO} + 2\text{HCl} \rightarrow \text{CaCl}_2 + \text{H}_2\text{O}$
- (C) $\text{Fe} + \text{CuSO}_4 \rightarrow \text{FeSO}_4 + \text{Cu}$
- (D) $\text{NaOH} + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O}$

Q.18. The reaction $\text{H}_2 + \text{Cl}_2 \rightarrow 2\text{HCl}$ is a -

- (A) Decomposition reaction
- (B) Combination reaction
- (C) Double displacement reaction
- (D) Displacement reaction

Q.19. Which of the following is a combustion reaction

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- (A) Boiling of water
- (B) Melting of wax
- (C) Burning of petrol
- (D) None of these

Q.20. $\text{Fe}_2\text{O}_3 + 2\text{Al} \rightarrow \text{Al}_2\text{O}_3 + 2\text{Fe}$ This reaction is an example of -

- (A) Combination reaction
- (B) Double displacement reaction
- (C) Decomposition reaction
- (D) Displacement reaction