

CHEMICAL REACTIONS AND EQUATIONS

Q.1) No. of moles of NH_4Cl formed when, 3 moles Barium chloride is allowed to react with 2 moles ammonium phosphate will be-

- (A) 1 (B) 3
(C) 4 (D) 6

Q.2) If the following reaction



which of the following get oxidized

- (A) H (B) H_2S
(C) Cl_2 (D) Both (B) and (C)

Q.3) Upon heating zinc oxide with carbon, zinc and carbon-monoxide are formed is the process

- (A) ZnO get oxidised
(B) C get reduced
(C) ZnO acts as oxidising agent
(D) C acts as oxidising agent

Q.4) During combustion of methane gas

- (A) methane get reduced
(B) Oxygen gas get reduced
(C) Methane gas acts as oxidising agent
(D) Both (A) and (B)

Q.5) Decomposition reaction is

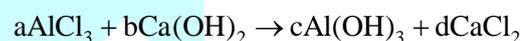
- (A) Mostly exothermic
(B) Mostly endothermic
(C) That reaction in which one substance get decomposed into simpler substances

(D) Both (B) and (C)

Q.6) Which of the following is a decomposition reaction?

- (A) $\text{NaOH} + \text{HCl} \rightarrow \text{NaCl} + \text{H}_2\text{O}$
(B) $\text{NH}_4\text{CNO} \rightarrow \text{H}_2\text{NCONH}_2$
(C) $2\text{KClO}_3 \rightarrow 2\text{KCl} + 3\text{O}_2$
(D) $\text{H}_2 + \text{I}_2 \rightarrow 2\text{HI}$

Q.7) Identify a, b, c, & d in following reaction?



- (A) a = 2 b = 1 c = 3 d = 4
(B) a = 2 b = 3 c = 2 d = 3
(C) a = 3 b = 3 c = 3 d = 3
(D) a = 3 b = 1 c = 3 d = 2

Q.8) Which of the following statements is incorrect?

- (A) In oxidation, oxygen is added to a substance
(B) In reduction, hydrogen is added to a substance
(C) Oxidizing agent is oxidized
(D) Reducing agent is oxidized

Q.9) A reducing agent is a substance which can ?

- (A) donate proton (B) accept electron
(C) donate electron (D) accept proton

Q.10) 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.11) Which of the following statements is correct

- (A) A chemical equation tells us about the substances involved in a reaction.
(B) A chemical equation informs us about the symbols and formulae of the substances involved in a reaction.
(C) A chemical equation tells us about the atoms or molecules of the reactants and products involved in a reaction.
(D) All are correct.

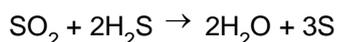
Q.12) $\text{Zn(s)} + \text{H}_2\text{SO}_4\text{(aq)} \longrightarrow \text{ZnSO}_4\text{(aq)} + \text{H}_2\text{(g)}$ is an example of-

- (A) precipitation reaction
(B) endothermic reaction
(C) evolution of gas
(D) change in colour

Q.13) In the reaction $x\text{Pb(NO}_3)_2 \xrightarrow{\text{Heat}} y\text{PbO} + z\text{NO}_2 + \text{O}_2$ x,y and z are -

- (a) 1,1,2 (B) 2,2,4
(C) 1,2,4 (D) 4,2,2

Q.14) When the gases sulphur dioxide and hydrogen sulphide react, the reaction is



Here hydrogen sulphide is acting as -

- (A) an oxidising agent (B) a reducing agent
(C) a dehydrating agent (D) a catalyst

Q.15) 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.16) Which of the following is an example of oxidation reaction ?

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

Q.17) 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) $2\text{Na} + 2\text{H}_2\text{O} \longrightarrow 2\text{NaOH} + \text{H}_2$

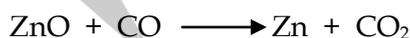
Q.18) Which of the following is/are a decomposition reaction(s)?

- (A) $2\text{HgO} \xrightarrow{\text{Heat}} 2\text{Hg} + \text{O}_2$
(B) $\text{CaCO}_3 \xrightarrow{\text{Heat}} \text{CaO} + \text{CO}_2$
(C) $2\text{H}_2\text{O} \xrightarrow{\text{Electrolysis}} \text{H}_2 + \text{O}_2$
(D) All of these

Q.19) Which of the following is a redox reaction-

- (A) $\text{CaCO}_3 \longrightarrow \text{CaO} + \text{CO}_2$
(B) $\text{H}_2 + \text{Cl}_2 \longrightarrow 2\text{HCl}$
(C) $\text{CaO} + 2\text{HCl} \longrightarrow \text{CaCl}_2 + \text{H}_2\text{O}$
(D) $\text{NaOH} + \text{HCl} \longrightarrow \text{NaCl} + \text{H}_2\text{O}$

Q.20) Which statement is correct about the following reaction?



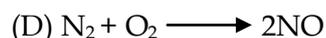
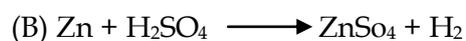
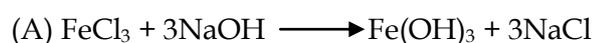
- (A) ZnO is being oxidized
(B) CO is being reduced
(C) CO₂ is being oxidized
(D) ZnO is being reduced

Q.21) $\text{Fe}_2\text{O}_3 + 2\text{Al} \longrightarrow \text{Al}_2\text{O}_3 + 2\text{Fe}$ This reaction is an example of -

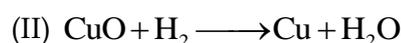
- (A) Combination reaction
(B) Double displacement reaction
(C) Decomposition reaction
(D) Displacement reaction

Q.22) Which of the following reaction is metathesis

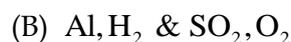
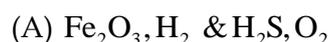
reaction?



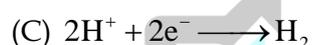
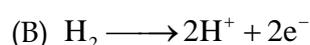
Q.23) There are four types of reactions given



The reducing agents in I & II and oxidising agents in III & IV are



Q.24) In which of the following reaction 'Zn' undergo oxidation?



Q.25) The formula for rust is



Q.26) According to electronic concept

(A) Oxidation is gain of electron

(B) Electron donating species is called oxidising agent

(C) Reduction is gain of electron

(D) Electron accepting species is called reducing agent

Q.27) Rancidity can be checked using

(A) Oxidants

(B) anti oxidants

(C) not using nitrogen gas

(D) by loose packing and keeping food in air

Q.28) Photosynthesis is an example of

(A) exothermic reaction

(B) endothermic reaction

(C) the reaction in which plant absorb methane gas

(D) the reaction in which plant get reduced

Q.29) Lime water can be used for testing carbon dioxide gas because :

(A) the gas can readily dissolve in lime water

(B) a white precipitate is immediately formed on passing gas through lime water

(C) lime water becomes milky.

(D) lime water initially becomes milky and the milkiness disappears after sometime on passing the gas in excess

Q.30) The basis of black and white photography is -

(A) decomposition of lead salts

(B) combination of lead salts

(C) decomposition of silver salts

(D) combination of silver salts

Answer Sheet

Q.1	D	Q.11	D	Q.21	D
Q.2	B	Q.12	C	Q.22	A
Q.3	B	Q.13	B	Q.23	B
Q.4	B	Q.14	B	Q.24	D
Q.5	D	Q.15	D	Q.25	B
Q.6	C	Q.16	A	Q.26	C
Q.7	B	Q.17	B	Q.27	B
Q.8	C	Q.18	D	Q.28	B
Q.9	C	Q.19	B	Q.29	D
Q.10	B	Q.20	D	Q.30	C