CHEMICAL EQUATIONS

1. Balance the following chemical equation: $C_3H8 + O_2 \rightarrow CO_2 + H_2O$
2. Balance the following chemical equation: $Fe_2O_3 + Al \longrightarrow Fe + Al_2O_3$
3. Balance the following chemical equation: $NH_3 + Cl_2 \longrightarrow N_2 + NH_4Cl$
4. Balance the following chemical equation: $KClO_3 \rightarrow KCl + O_2$
5. Balance the following chemical equation: $C_6H_{12}O_6 \rightarrow C_2H_5OH + O_2$
6. Balance the following chemical equation: $Na + H_2O \rightarrow NaOH + H_2$
7. Balance the following chemical equation: $NaOH + H_2SO_4 \rightarrow Na_2SO_4 + H_2O$
8. Balance the following chemical equation: $Mg + I_2 \rightarrow MgI_2$
9. Chemical equations can be made more informative by expressing following characteristics of the reactants and products.

A) Physical State B)Heat changes
C) Gas evolved if any D) Precipitate formed if any
E) Temperature, pressure or catalyst F) All above

10. Physical state of the aluminium $Fe_2O_{3\,(s)} + 2Al_{(s)} \rightarrow 2Fe_{(s)} + Al_2O_{3\,(s)}$

A) liquid B)solid
C) Gas D) precipitate

11. Physical state of the barium chloride $Na_2SO_{4\,(aq)} + BaCl_{2\,(aq)} \rightarrow BaSO_{4(s)} + 2NaCl_{(aq)}$

A) liquid B) aqueous solution
C) Gas D) precipitate

12. $C_{(s)} + O_{2\,(g)} \rightarrow CO_{2\,(g)} + Q$ ( )

A) Endothermic B)Exothermic

13. $N_{2\,(g)} + O_{2\,(g)} \rightarrow 2NO_{(g)} - Q$ ( )

A) Endothermic B)Exothermic

14. $Zn_{(s)} + H_2SO_{4(l)} \rightarrow ZnSO4_{(l)} + H_{2(g)} \uparrow + Q$

A) Endothermic B)Exothermic

15. $C_{(s)} + O_{2g)} \rightarrow CO_{2g)} \uparrow + Q$

A) Endothermic B)Exothermic

16. What is the precipitate :$AgNO_{3\,(aq)} + NaCl_{(aq)} \rightarrow AgCl_{(s)} \downarrow + NaNO3_{(aq)}$

A) $AgNO_3$ B) NaCl
C) AgCl D) $NaNO_3$

17. What is the precipitate : $Na_2SO_{4\,(aq)} + BaCl_{2\,(aq)} \rightarrow BaSO_{4\,(s)} \downarrow + 2NaCl_{(aq)}$

A) $BaCl_2$ B) $BaSO_4$l
C) NaCl D) Na_2SO_4

18. Which gas evolved in the reaction: $6CO_2 + 6\,H_2O \rightarrow C_6H_{12}O_6 + 6O_2 \uparrow$

A) CO_{l2} B) H_2Ol
C) $C_6H_{12}O6$ D) O_2

19. Which gas evolved in the reaction: $2AgCl\,(s) \rightarrow Ag\,(s) + Cl2\,(g) \uparrow$

A) Cl_2 B) Ag
C) AgCl D) H_2O

20. In a reaction $Zn_{(s)} + 2HCl_{(aq)} \rightarrow ZnCl_{2(aq)} + H_{2g)} + Q$ [ ]

A) Gas liberated B) Heat liberated
C) Heat absorbed D) A and B

21. $2AgBr_{(s)} \rightarrow 2Ag_{(s)} + Br_{2g)} \uparrow$ [ ]

A) Reactants are AgBr, Products are Ag, Br_2 B) Gas liberated
C) Endothermic reaction D) All are correct

22. Where is catalyst shown in a chemical equation? [ ]

A) Reactant side B) Product side
C) Above or below the arrow mark D) It cannot be shown in chemical reaction

23. $CaCO_{3\,(s)} \rightarrow CaO_{(s)} + CO_{2g)} \uparrow$ as per the equation, which of the following is NOT correct. [ ]

A) Gas liberated B) Exothermic reaction
C) Endothermic reaction D) Chemical Decomposition reaction

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