

CHEMICAL EQUATIONS

1. Balance the following chemical equation: $C_3H_8 + O_2 \rightarrow CO_2 + H_2O$
2. Balance the following chemical equation: $Fe_2O_3 + Al \rightarrow Fe + Al_2O_3$
3. Balance the following chemical equation: $NH_3 + Cl_2 \rightarrow N_2 + NH_4Cl$
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. $Zn(s) + H_2SO_4(l) \rightarrow ZnSO_4(l) + H_2(g) \uparrow + Q$
 - A) Endothermic
 - B) Exothermic
15. $C(s) + O_2(g) \rightarrow CO_2(g) \uparrow + Q$
 - A) Endothermic
 - B) Exothermic
16. What is the precipitate: $AgNO_3(aq) + NaCl(aq) \rightarrow AgCl(s) \downarrow + NaNO_3(aq)$
 - 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) $BaSO_4$
 - C) $NaCl$
 - D) Na_2SO_4
18. Which gas evolved in the reaction: $6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2 \uparrow$
 - A) CO_2
 - B) H_2O
 - C) $C_6H_{12}O_6$
 - D) O_2
19. Which gas evolved in the reaction: $2AgCl(s) \rightarrow Ag(s) + Cl_2(g) \uparrow$
 - A) Cl_2
 - B) Ag
 - C) $AgCl$
 - D) H_2O
20. In a reaction $Zn(s) + 2HCl(aq) \rightarrow ZnCl_2(aq) + H_2(g) + Q$ []
 - A) Gas liberated
 - B) Heat liberated
 - C) Heat absorbed
 - D) A and B
21. $2AgBr(s) \rightarrow 2Ag(s) + Br_2(g) \uparrow$ []
 - 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. $CaCO_3(s) \rightarrow CaO(s) + CO_2(g) \uparrow$ as per the equation, which of the following is NOT correct. []
 - A) Gas liberated
 - B) Exothermic reaction
 - C) Endothermic reaction
 - D) Chemical Decomposition reaction