

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
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13. $N_2(g) + O_2(g) \rightarrow 2NO(g) - Q$ ()

A) Endothermic	B) Exothermic
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14. $Zn(s) + H_2SO_4(l) \rightarrow ZnSO_4(l) + H_2(g) \uparrow + Q$

A) Endothermic	B) Exothermic
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15. $C(s) + O_2(g) \rightarrow CO_2(g) \uparrow + Q$

A) Endothermic	B) Exothermic
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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