



Assignment

Chemical Reactions and Equations

1. One of the following does not happen during a chemical reaction. This is:
 - (a) Breaking of old chemical bonds and formation of new chemical bonds
 - (b) Formation of new substances with entirely different properties
 - (c) Atoms of one element change into those of another element to form new products
 - (d) A rearrangement of atoms takes place to form new products
2. Which of the following does not involve a chemical Reaction?
 - (a) Digestion of food in our body
 - (b) Process of respiration
 - (c) Burning of candle wax when heated
 - (d) melting of candle wax on heating
3. You are given the solution of lead nitrate. In order to obtain a yellow precipitate, you should mix it with a solution of:
 - (a) Potassium chloride
 - (b) Potassium Nitride
 - (c) Potassium sulphate
 - (d) Potassium Iodide
4. An acid which can decolorize purple coloured potassium permanganate solution is:
 - (a) Sulphuric acid
 - (b) Citric acid
 - (c) Carbonic acid
 - (d) Hydrochloric acid
5. The chemical reaction between quick lime and water is characterized by:
 - (a) evolution of hydrogen gas
 - (b) Formation of slaked lime precipitate
 - (c) Change in temperature of mixture
 - (d) Change in colour of the product
6. One of the following is an exothermic reaction. This is:
 - (a) Electrolysis of water



- (b) Conversion of lime stone into quick lime
 - (c) Process of respiration
 - (d) Process of Photosynthesis
7. The Chemical equations are balanced to satisfy one of the following laws in chemical reactions. This law is known as
- (a) law of conservation of momentum
 - (b) law of conservation of mass
 - (c) law of conservation of motion
 - (d) law of conservation of magnetism
8. The Chemical reaction between Quick lime and water is characterized by:
- (a) Evolution of hydrogen gas
 - (b) Formation of slaked lime precipitate
 - (c) Change in temperature of mixture
 - (d) Change in colour of product
9. $2\text{Pb}(\text{NO}_3)_2 \rightarrow 2\text{PbO} + n\text{A} + \text{O}_2$
- (a) 4NO
 - (b) 4NO_2
 - (c) 2PbNO_2
 - (d) NO_2
10. Which of the following reaction will not take place?
- (a) $\text{Zn} + \text{FeSO}_4 \rightarrow \text{ZnSO}_4 + \text{Fe}$
 - (b) $2\text{KI} + \text{Cl}_2 \rightarrow 2\text{KCl} + \text{I}_2$
 - (c) $\text{Zn} + \text{MgSO}_4 \rightarrow \text{ZnSO}_4 + \text{Mg}$
 - (d) $\text{Mg} + \text{CuSO}_4 \rightarrow \text{MgSO}_4 + \text{Cu}$
11. The equation $\text{Cu} + \text{XHNO}_3 \rightarrow \text{Cu}(\text{NO}_3)_2 + \text{YNO}_2 + 2\text{H}_2\text{O}$, the value of X and Y are:
- (a) 3 and 1 respectively
 - (b) 8 and 6 respectively
 - (c) 4 and 2 respectively
 - (d) 7 and 1 respectively
12. When the gases Sulphur dioxide and Hydrogen sulphide mix in the presence of water, the reaction $\text{SO}_2 + 2\text{H}_2\text{S} \rightarrow 2\text{H}_2\text{O} + 3\text{S}$ occurs. Here hydrogen sulphide is acting as:
- (a) an oxidising agent
 - (b) a reducing agent
 - (c) a dehydrating agent
 - (d) a catalyst
13. The layer on iron nails when they are dipped in copper sulphate solution is:



- (a) Soft and dull
 - (b) Hard and Shiny
 - (c) Hard and dull
 - (d) None of these
14. The substances which combine or react are known as:
- (a) Reactant
 - (b) Product
 - (c) Reaction
 - (d) Catalyst
15. The new substances formed during chemical reaction are known as:
- (a) Catalyst
 - (b) Reactant
 - (c) Product
 - (d) Equation
16. The process of Respiration is:
- (a) an oxidation reaction which is endothermic
 - (b) a reduction reaction which is exothermic
 - (c) a combination reaction Which is endothermic
 - (d) an oxidation reaction which is exothermic
17. In the context of redox reactions, the removal of hydrogen from a substance is known as:
- (a) Oxidation
 - (b) Dehydration
 - (c) Reduction
 - (d) Dehydrogenation
18. The Chemical reaction involved in the corrosion of iron metal is that of:
- (a) Oxidation as well as displacement
 - (b) Reduction as well as Combination
 - (c) Oxidation as well as combination
 - (d) Reduction as well as displacement
19. $4M + 3O_2 \rightarrow 2M_2O_3$
This equation represents:
- (a) Combination reaction as well as reduction reaction
 - (b) Decomposition reaction as well as oxidation reaction
 - (c) Oxidation reaction as well as displacement reaction
 - (d) Combination reaction as well as oxidation reaction
20. $Mg + CuO \rightarrow MgO + Cu$
This equation represents
- (a) Decomposition reaction as well as displacement reaction
 - (b) Combination reactions as well as double displacement reaction



- (c) Redox reaction as well as displacement reaction
(d) Double displacement reaction as well as redox reaction
21. Which of the following is a balanced chemical equation?
(a) $\text{H}_2\text{O}_2 \rightarrow \text{H}_2\text{O} + \text{O}_2$
(b) $2\text{Fe}_2\text{O}_3 + 3\text{C} \rightarrow 4\text{Fe} + 3\text{CO}_2$
(c) $\text{SO}_2 + \text{O}_2 + 2\text{H}_2\text{O} \rightarrow 4\text{H}_2\text{SO}_4$
(d) $2\text{Mg} + \text{HCl} \rightarrow \text{MgCl}_2 + \text{H}_2$
22. The term rancidity represents
(a) Acid rain
(b) Oxidation of fatty food
(c) rotting of fruit
(d) fading of the coloured clothes in the sun
23. $a \text{Pb}(\text{NO}_3)_2 \rightarrow b \text{PbO} + c \text{NO}_2 + \text{O}_2$
a, b, c in the above balanced equation is:
(a) 2, 2, 4
(b) 4, 4, 8
(c) 3, 3, 6
(d) 2, 2, 2
24. Corrosion can be prevented by:
(a) Alloying
(b) Tinning
(c) Galvanizing
(d) All of the above
25. As Compare to iron, Aluminium has:
(a) Higher tendency to oxidise
(b) lesser tendency to oxidise
(c) equal tendency to oxidise
(d) none of the above

