**Karan Arora** **R.L. Chemistry Classes M: 99968-68554 Max Time : 1 hr** **Class = 10th Science Test Max Marks : 20**

**CHEMICAL REACTIONS & EQUATIONS**

1. AgNO3 (aq) + NaCl (aq) AgCl (s) + NaNO3 (aq) [ 1 ]

FeS + H2SO4 FeSO4 + H2S

Consider the above mention two chemical equations with two different kinds of arrows () along with product. What do these two different arrows indicate?

1. State the main difference between an Endothermic reaction and an exothermic reaction. [ 1 ]
2. On what basis is a chemical equation balanced? [ 1 ]
3. Write balanced chemical equation for the following reactions : [ 2 ]
4. Silver bromide on exposure to sunlight decomposes into silver and bromine.
5. Sodium metal reacts with water to form sodium hydroxide and hydrogen gas.
6. What is meant by : (a) displacement reaction (b) Combination reaction. [ 2 ]

Write balanced chemical equation for each reaction.

1. Using a suitable chemical equation justify that some chemical reaction are determined by : [ 2 ]

(i) Change in colour (ii) Change in temperature

1. Write the balanced chemical equation for the following and identify the type of reaction in each case. [ 1 x 3 = 3 ]
2. potassium bromide (aq) + Barium iodide (aq) Potassium iodide (aq) + barium bromide (s)
3. Zinc Carbonate (s) Zinc oxide (s) + Carbon dioxide (g)
4. Hydrogen (g) + Chlorine (g) Hydrogen chloride (g)
5. Balance the following chemical equation : [ 1 x 4 = 4 ]
6. BaCl2  + H2SO4 BaSO4 + HCl
7. Ca(OH)2 + HNO3 Ca(NO3)2 + H2O
8. Pb(NO3)2 PbO + NO2 + O2
9. MnO2 + HCl MnCl2 + H2O + Cl2
10. Classify each of the following as combination , decomposition , displacement or double displacement reaction : [ 1 x 4 = 4 ]
11. 2 KNO3 (s) 2 KNO2 (s) + O2 (g)
12. Zn (s) + 2 AgNO3 (aq) Zn(NO3)2 + 2 Ag (s)
13. Ni(NO3)2 (aq) + 2 NaOH Ni(OH)2 + 2 NaNO3 (aq)
14. N2 (g) + 3 H2 (g) 2 NH3 (g)

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1. AgNO3 (aq) + NaCl (aq) AgCl (s) + NaNO3 (aq) [ 1 ]

FeS + H2SO4 FeSO4 + H2S

Consider the above mention two chemical equations with two different kinds of arrows () along with product. What do these two different arrows indicate?

1. State the main difference between an Endothermic reaction and an exothermic reaction. [ 1 ]
2. What is balanced chemical equation? Why should the chemical equation be balanced ? [ 2 ]
3. Why should a magnesium ribbon be cleaned before burning in air ? [ 2 ]
4. What is meant by : (a) decomposition reaction (b) Combination reaction. [ 2 ]

Write balanced chemical equation for each reaction.

1. Using a suitable chemical equation justify that some chemical reaction are determined by : [ 2 ]

(i) Change in colour (ii) Change in temperature

1. Write the balanced chemical equation for the following and identify the type of reaction in each case. [ 1 x 5 = 5 ]
2. potassium bromide (aq) + Barium iodide (aq) Potassium iodide (aq) + barium bromide (s)
3. Zinc Carbonate (s) Zinc oxide (s) + Carbon dioxide (g)
4. Hydrogen (g) + Chlorine (g) Hydrogen chloride (g)
5. Calcium hydroxide + Carbon dioxide → Calcium carbonate + Water
6. Barium chloride + Potassium sulphate → Barium sulphate + Potassium chloride
7. Balance the following chemical equation : [ 1 x 5 = 5 ]
8. BaCl2  + H2SO4 BaSO4 + HCl
9. Ca(OH)2 + HNO3 Ca(NO3)2 + H2O
10. Pb(NO3)2 PbO + NO2 + O2
11. MnO2 + HCl MnCl2 + H2O + Cl2
12. Al (OH)3 Al2O3 + H2O