	INDIAN SCHOOL AL WADI AL KABIR	
Class X	Department of Science 2020-2021	
	SUBJECT : CHEMISTRY	
Work sheet No.: 03	Chapter: Chemical reactions and Equations	Note: A4 File
Only Answers		format
Name of the student:	Class & Section:	Roll No.

## **Objective type Questions (1 mark)**

- 1. (a) Decomposition and redox
- 2. (d) 4

## **Three marks type Questions**

3. A shining metal 'M' on burning gives a dazzling white flame and changes to a white powder 'N'.

- (c) M undergoes oxidation as it gains oxygen
- 4. In the electrolysis of water,
  - (a) The gas liberated at the anode Oxygen; Gas liberated at the cathode - Hydrogen

- (b) According to the balanced equation, the ratio of Hydrogen to Oxygen is 2:1
- (c) The water will not conduct electricity; therefore, electrolysis would not happen.

5.

- (a) Displacement reaction as Al displaces Fe from its compound
- (b) Double displacement reactions as there is exchange of ions
- (c) Decomposition reaction as there is a single reactant that gets decomposed to two products
- 6. White coloured Silver chloride changes into grey coloured Silver.

$$2AgCl \longrightarrow 2Ag + Cl_2$$

Decomposition reaction

7. (a) Double displacement reaction

$$Zn + 2AgNO_3 \longrightarrow Zn(NO_3)_2 + 2Ag$$

(a) Double displacement reaction

$$2KI + Pb(NO_3)_2 \longrightarrow PbI_2 + 2 KNO_3$$

8. (a) Decomposition reaction and Nitrogen dioxide gas

(b) 
$$2Cu(NO_3)_{2(s)} \longrightarrow 2CuO_{(s)} + 4NO_{2(g)} + O_{2(g)}$$

- (c) Below 7
- 9. (a)
  - (i) Double displacement reactions
  - (ii) Combination reaction
  - (iii) Decomposition reaction
  - (iv) Single displacement reaction

- 10. (a) Yellow coloured pp. Lead iodide
  - (b)  $2KI + Pb(NO_3)_2 \longrightarrow PbI_2+2 KNO_3$
  - (c) Double displacement reaction and precipitation reaction
- 11. (a) Green coloured crystals become yellowish brown coloured solid, suffocating smell of gases detected
  - (b) Decomposition reaction

$$\begin{array}{c}
\text{heat} \\
2\text{FeSO}_4(s) \Longrightarrow \text{Fe}_2\text{O}_{3(s)} + \text{SO}_{2(g)} + \text{SO}_{3(g)} \\
\text{(c)}
\end{array}$$

- 12. (a) Copper got oxidised on heating with Oxygen and black colured Copper oxide is formed.
  - (b) Copper oxide

$$Cu + O_2 \stackrel{\text{heat}}{=} 2 CuO$$

(c)

(d) On passing Hydrogen over heated CuO

$$CuO + H_2 \xrightarrow{heat} H_2O + Cu$$

## Five marks type Questions

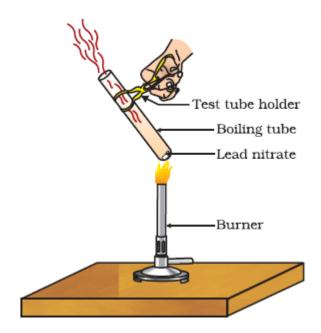
13. (a) The reaction in which the exchange of ions takes place is called a double displacement reaction.

$$2KI + Pb(NO_3)_2 \longrightarrow PbI_2 + 2 KNO_3$$

- (b) A small amount of quick lime is added to water in a beaker.
- (i) Combination reaction. The reaction in which two or more reacts combine together to form a single product is called the combination reaction.

(ii) 
$$CaO + H_2O \xrightarrow{\text{yields}} Ca(OH)_2$$

- (iii) A white mass is produced; heat is observed.
- 14. (a) In a dry test-tube a small amount of Lead nitrate is transferred and heated strongly. The changes are observed carefully. The white coloured Lead nitrate changes into yellow solid Lead oxide, brown coloured Nitrogen dioxide is given out. If a glowing splinter is brought near the test tube, the flame gets rekindled. This shows the presence of Oxygen gas.



(b) Yellow coloured solid is obtained – Lead oxide Brown coloured gas – Nitrogen dioxide is obtained.

(c) 
$$2\text{Pb}(\text{NO}_3)_{(s)} \xrightarrow{\text{yields}} 2\text{PbO}_s + 4\text{NO}_{2g} + \text{O}_{2g}$$

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