

Section I

[Answer all questions]

1. Name the following compounds:

a. KHSO_4 b. $\text{Fe}_2(\text{SO}_3)_3$ c. Al_2S_3 d. Ba Br_2 (4)

2. Differentiate between Thermal decomposition & Thermal dissociation. Give one reaction for each. (4)

3. Write the formula of the following:

1. Potassium Hypochlorite

2. Mercuric oxide

3. Aluminium Carbonate

4. Sodium plumbite.

5. Plumbous Carbonate

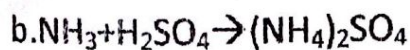
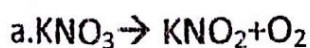
6. Ammonium Nitrate. (6)

4. Give reasons for the following:

a. Magnesium reacts with sulphuric acid to give Hydrogen. But copper will not react with sulphuric acid to give Hydrogen.

b. Baking soda is applied on the spot when a person is stung by a bee. (3)

5. State the type of reaction and balance the following equations:



6. Define the following reactions and give one example each.

a. Neutralisation.

b. Exothermic reaction

c. Electrochemical reaction. (6)

7. Match the following

- | | | | |
|-----------------|---|-----------------|-----|
| 1. Magnesium | - | Heat | |
| 2. C_2H_2 | - | Sunlight | |
| 3. $HClO$ | - | dazzling light. | |
| 4. Lead nitrate | - | Sound | (4) |

8. Fill in the blanks;

1. ----- is a binary acid.
2. Nitrogen trihydride is called -----.
3. ----- is the short hand notation for the molecule of a substance.
4. ----- is the Empirical formula of H_2O_2 . (4)

9. What do you understand by Relative Atomic Mass? Write the Empirical

Formula of glucose and find its mass. (C=12, H=1, O=16) [Glucose $C_6H_{12}O_6$] (3)

Section II

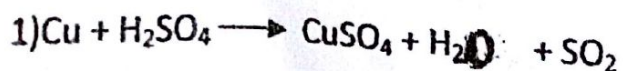
Question II

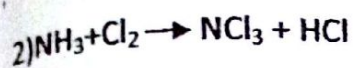
1. Find the percentage of P in $Ca(H_2PO_4)_2$ [Ca=40, H=1, P=31, O=16] (2)
2. Calculate the relative molecular mass of
 - 1) Potassium sulphate (K=39, S=32, O=16) (
 - 2) Sodium hydroxide (Na=23, O=16, H=1)
3. Find the valency of
 - 1) P in PH_3
 - 2) C in C_2H_4 (valency of H=1) (
4. Differentiate between simple radical and compound radical by giving examples : (

Question III

1. Define chemical equation.?

Balance the following equations:





(3)

2. Prove the law of conservation of mass using decomposition of CaCO_3 on heating.

[Ca=40, C=12, O=16]

(2)

3. What are the conditions required for a chemical change ?

(2)

4. What do you observe in the following :

1) Mercuric Chloride is rubbed with Potassium Iodide

2) Lead Nitrate crystals are heated

(2)

Question IV

1. Give examples for each of the following (Write only equations)

a) A reaction involving a blue solution

b) Formation of dirty green precipitate

c) A change of state

d) Formation of a gas

(4)

2. Define hydrolysis. Write equation for the hydrolysis of FeCl_3 ?

(2)

3. What is precipitation? What do you observe when Barium Chloride solution is added to Sodium Sulphate solution? Write its equation?

(3)

4. Define synthesis.?

(1)

Question V

1. What do you understand by gas?

(2)

2. Why do gases exert uniform pressure?

(2)

3. What is the relationship between Celsius and the Kelvin scales of temperature?

(2)

Convert 53°C to Kelvin scale.

4. What is STP? Why is it necessary to compare gases at STP?

(2)

4. State Boyle's law.

(1)

5. What is diffusion?

(1)