

Final Examination - 2017-2018

CHEMISTRY

Time : 2 hrs. 15 min.

F. M. : 80

Std. : VIII

Q1) Fill in the Blanks :-

(5)

- i. Hydrogen is _____ soluble in water.
- ii. Oxidation involves addition of _____
- iii. Valency of Carbon in CH_4 is _____
- iv. Chemical name of water is _____
- v. Hard water contains _____ of calcium .

Q2) Write the Chemical Name of the Following:-

(5)

- | | |
|------------------------------|-------------------------------------|
| i) NaNO_2 | ii) Mg_3N_2 |
| iii) K_2CO_3 | iv) FeS v) AlCl_3 |

Q3) Balance the Following chemical equations :

(5)

- i. $\text{S} + \text{H}_2\text{SO}_4 \longrightarrow \text{SO}_2 + \text{H}_2\text{O}$
- ii. $\text{KNO}_3 \longrightarrow \text{KNO}_2 + \text{O}_2$
- iii. $\text{Na} + \text{H}_2\text{O} \longrightarrow \text{NaOH} + \text{H}_2$
- iv. $\text{NaOH} + \text{H}_2\text{SO}_4 \longrightarrow \text{Na}_2\text{SO}_4 + \text{H}_2\text{O}$
- v. $\text{Fe} + \text{H}_2\text{O} \longrightarrow \text{Fe}_2\text{O}_3 + \text{H}_2$

Q4) Write the chemical Formulae for the following compounds :-

(5)

- i. Zinc Nitrate
- ii. Calcium Oxide
- iii. Aluminium Sulphate
- iv. Potassium Nitrate
- v. Sodium Sulphite

Q5) Complete the Table :

(5)

Common Name	Chemical Name	Formula
Washing Soda crystals	Sodium carbonate decahydrate	
Plaster of Paris		
Blue Vitriol		

Q6) What is observed when :-

(6)

Gas	Colour	Nature	Odour of gas	Litmus Test
Oxygen				
Ammonia				
Nitrogen dioxide				

Q7) What do you observe when following compounds are heated? Also name the residue for each compound (If any)

i) Ammonium Chloride ii) lead nitrate iii) Copper Carbonate (5)

Q8) Calculate the molecular mass of the following : (4)

i) H_2O ii) Na_2CO_3 (when Given atomic mass of Na = 23 , C = 12 , O = 16 , H = 1)

Section B (40 Marks)

(Attempt any 4 Questions)

Q1 A. What are the causes for temporary hardness of water? (2)

B. Write the formula and complete the table

Element	Hydroxide	Nitrate
Iron II		
Potassium		

C) Define (3)

i. Efflorescence; ii. Crystallization

D) What is detonating mixture? (1)

Q2. A) State any three characteristics of a true solution? (3)

B) State any two methods for removing temporary hardness of water? (2)

C) Write the balanced chemical equation of the following reaction (4)

i. Sodium hydroxide + sulphuric acid \longrightarrow Sodium sulphate + Water

ii. Zinc sulphide + oxygen \longrightarrow zinc oxide + sulphur dioxide

D) Name a gas that is an oxidizing as well as reducing agent (1)

Q3 A) What do you observe when magnesium reacts with steam (2)

B) The valency of an element is 3 and that of element B is 2. (2)

Write the formula of the compound

C) Complete the table

(3)

Sl no	Name	Basic radical	Acidic radical	Formula
1	Ammonium Sulphate			
2	Copper (I) Oxide			

D) Name any one impurities present in hydrogen prepared in lab and the process to remove the impurities? (3)

Q4 A) Mention the factors effecting Solubility? (3)

B) State any three difference between Oxidation and reduction reaction? (3)

C) Write the 1st Step involved in the Bosch Process with balanced equation? (3)
Also identify the type of reaction

D) Name any one source of hydrogen (1)

Q5 A) Give a balanced equation when nitrogen reacts with hydrogen? Name the process. (3)

B) Name an Oxidizing agent that does not contain oxygen (1)

C) State any two similarities between Hydrogen and Halogens? (2)

D) Explain Why? (4)

i. Boiled or distilled water tastes flat

ii. Burns caused by steam are more severe than burns caused by boiling water

Q6 A) State any two importance of Air dissolved in water? (2)

B) What are the advantages of hard water? (2)

C) Mention any one test for Identification of hydrogen gas? (1)

D) Differentiate between drying agent and dehydrating agent? (2)

E) Why is Zinc granules preferred over pure Zinc in lab preparation of hydrogen? (2)

F) Name a metal with variable valency (1)