GREENLAWNS SCHOOL, WORLI

FINAL EXAMINATION: 2019-20

*CHEMISTRY*

Std: VIII Marks: 80

Date: /02/2020 Time: 2 hrs

Answer to this paper must be written on the answer booklet provided to you.

The first 10 minutes are to be spent in reading the Question paper. The time given at the head of this paper is the time allowed for writing the answers. All questions are compulsory.

Do not waste paper. Leave only one line after each answer.

I A) Name the following: [5]

1. A chemical reaction involving oxidation of one substance and reduction of the other.
2. An insoluble chloride.
3. Substance that causes temporary hardness in water.
4. An oxide which is yellow when hot and white when cold.
5. The chemical name for Fe3O4.

B) Fill in the blanks: [5]

1. Organic chemistry is the study of specific \_\_\_\_\_\_\_\_\_\_\_ compounds.
2. \_\_\_\_\_\_\_\_\_\_\_ is the process of separation or deposition of crystals from a hot saturated solution on gentle cooling of the solution.
3. Hydrogen-air mixture burns with a characteristic \_\_\_\_\_\_\_\_\_\_\_ sound.
4. Potassium chlorate on thermal decomposition liberates \_\_\_\_\_\_\_\_\_\_\_ gas.
5. Air is \_\_\_\_\_\_\_\_\_\_\_ times heavier than hydrogen.

C) Explain the following terms: [5]

1. Electrodes iv. Thermal dissociation
2. Adsorption v. Allotropy
3. Drying agents

D) Distinguish between the following pairs on the basis of the points given in the brackets: [5]

1. Anthracite and bituminous coal (properties)
2. Neutralisation and precipitation reaction (meaning)
3. Cathode and anode (charge)
4. Diamond and graphite (crystal lattice)
5. Dissolved solids and gases (importance in water)

E) Give balanced equations for the following: [5]

1. Conversion of sulphur dioxide to an acid.
2. Reducing action of carbon monoxide on iron [III] oxide.
3. Conversion of lead to sodium plumbite using an alkali.
4. Thermal decomposition of calcium nitrate.
5. Laboratory preparation of ammonia.

F) What will you observe when: [5]

1. Liquid carbon dioxide is suddenly evaporated.
2. A piece of potassium is dropped in cold water.
3. Copper sulphate is heated.
4. Sodium chloride in an aqueous form is reacted with silver nitrate solution.
5. Hydrogen gas is bubbled into soap solution.

G) Give reasons for the following: [5]

1. Colloidal solutions show Tyndall effect.
2. Hydrogen gas is collected over water.
3. Graphite is used in the making of lead of pencils.
4. Promoters may be added to catalysts.
5. Wood charcoal is used as an adsorbent.

H) For the laboratory preparation of hydrogen gas,

1. Name the chemicals used. [1]
2. Justify the use of the above chemicals. [2]
3. Give the chemical equation. [1]
4. Mention one precaution followed. [1]

II A) The figure below represents laboratory method of preparation of carbon monoxide.



1. Identify the chemicals X and Y. [1]
2. Give balanced equation for the preparation. [1]

iii. Name the chemical in the washer bottle [1]

 and its role.

iv. Justify the method of collection of the gas [2]

 giving reasons.

v. Why is carbon monoxide considered to be [2]

 a highly poisonous gas?

B) What are amphoteric oxides? Give two examples. [2]

C) Give a balanced equation for action of heat on lead dioxide. [1]

III A) Complete the statement: Oxides are \_\_\_\_\_\_\_\_\_\_\_ compounds of a metallic or [1]

 non- metallic element with \_\_\_\_\_\_\_\_\_\_\_

B) Give balanced equations for formation of the following oxides: [2]

1. Calcium oxide from calcium nitrate.
2. Sulphur dioxide from a non-metal.

C) Give equations to show how temporary hardness enters in water. [2]

D) Why is dilute sulphuric acid not used to prepare carbon dioxide gas in laboratory? [2]

E) Complete and balance the following equations: [3]

1. FeCl3 + NaOH → \_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_
2. NaHCO3 + HCl → \_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_
3. Fe2O3 + C → \_\_\_\_\_\_\_\_\_\_\_\_ + \_\_\_\_\_\_\_\_\_\_\_\_

IV A) The figure given below is a fire extinguisher. Observe and answer the questions:



1. Identify chemicals X and Y? [1]
2. What happens when chemicals X and Y react? [1]
3. How does this extinguisher work? [2]

B) State the application of hydrogen in the following cases: [3]

1. Hydrogenation of oils
2. Manufacture of chemicals
3. Oxy-hydrogen flame

C) What is meant by ‘activity series of metals’? Give equation for reaction of the fifth [3]

 element with water and an acid.

V A) In the industrial method of preparation of hydrogen by Bosch process,

1. Give balanced equations for the first two main steps. [2]
2. How are CO2 and CO separated from the mixture? [2]

B) Give two points of difference between Oxidation and Reduction. [2]

C) State briefly how coke is prepared. [2]

D) Mention any two uses of Lampblack. [2]

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