**ELERAI MCK GIRLS SECONDARY SCHOOL**

**CHEMISTRY FORM 1**

**EXND OF TERM II EXAM 2014**

Answer all the questions

1. Name the method that you would use to separate the following mixture
2. Sand and common salt (1mk)
3. Oil and water (1mk)
4. Kerosene and crude oil (1mk)
5. State three differences between luminous and non luminous flames (3mks)
6. What is a flame (2mks)

b) The diagram below shows part of Bunsen burner when in use

Name the regions labbled AB and C (3mks)

1. The graph below is a cooling curve of a substance from gaseous state to slid state

Give the name of the process taking place between to and ti (2mks)

1. The set up below represents the apparatus that may be used to separate a mixture of two immiscible liquid C and D whose boiling points are 800C and 1100C
2. Name B (1mk)
3. What is the purpose of the thermometer (1mk)
4. Which liquid is collected in the test tube (1mk)
5. How would the purity of the liquid collected be determine (1mk)
6. The set up below was used to study some properties of air

State and explain two observation that would be made at the end of the experiment (3mks)

1. State the diagram below is a set up for the laboratory preparation of oxygen gas
2. Name solid R (1mk)
3. What is the role of solid R in the reaction (1mk)
4. Write a chemical equation for the reaction that takes place in the flask (2mks)
5. Give the commercial use of oxygen (3mks)
6. In an experiment to determine a certain volume of air was passed repeatedly from syringe over heated excess zinc powder as shown in diagram below.
7. Given that 200cm of air was passed over the cooper turning from A and after some time the volume of air in syringe A was found to be 160cm. calculate the percentage of oxygen in initial sample if air (3mks)
8. Write down the equation for the reaction that took place in the combustion (2mks)
9. Why is air passed repeatedly until there is no further change (2mks)
10. What observation was made on the copper turnings (1mk)
11. State two possible source of error in the experiment (2mks)
12. Give two reasons why most apparatus in the laboratory are made in glass (2mks)
13. The figure below shows some apparatus used in laboratory. Give the name and state what each apparatus is used for (4mks)
14. Define the following terms (10mks)
15. Compound
16. Molecule
17. Atom
18. Oxidation
19. Deliquescence
20. give the chemical symbol of the following elements (5mks)

**Element** **symbol**

Calcium

Carbon

Nitrogen

Silver

Sodium

1. A piece of chromatology paper was spotted with coloured inks obtained from pens labeled 1 – 6

The diagram below shows the spots after the chromatogram was developed

1. indicate in the diagram the base line and solvent front (2mks)
2. which two pens contain some pigment (2mks)
3. according to the chromatogram which pigments are present in the ink of pen 6 (2mks)
4. classify the following process as either chemical or physical (3mks)

|  |  |
| --- | --- |
| process | Type of change |
| Heating copper II sulphate |  |
| Obtaining kerosene from crude oil |  |
| Souring of milk |  |

What is acid –base indicator (2mks)

1. complete the table below (5mks)

|  |  |  |  |
| --- | --- | --- | --- |
| **Indicator** | **Colour in** | | |
| **Acid** | **Base** | **Neutral** |
| Litmus |  |  | purple |
| Pherol[hthalen |  |  | purple |
| Methyl orange | colourless |  | colourless |
|  |  | yellow |  |

State whether solution with the following PH values are acidic, base or neutral

A= PH = 3, B=PH =6, C=PH =2, D=PH=12, E=PH=7, F=PH =8

Which of the following PH values above is of

1. sodium hydrxide
2. ethanoic acid
3. ammonia solution.

Which of the following solution would react vigorously with zinc metal to produce hydrogen gas (1mk)

Write a word equation for the reaction above (3mks)

Give two operation of base and acids (4mks)

1. complete the following equations
2. potassium + hydrochloric acid
3. Carbon + oxygen
4. Calcium hydrogen carbonate + hydrochloric acid
5. Copper + oxygen