**KAHUHO UHURU HIGH SCHOOL**

**FORM I CHEMISTRY EXAM END OF TERM 3**

**TIME:**

**NAME………………………………………….. CLASS………………. ADM NO……….**.

1. The spots in the diagram below represents a chromatograph for three brands of soda suspected to contain unwanted food additives.

The results showed the presence of unwanted food additives in N and P only. On the chromatograph ;

1. Circle the spots which show unwanted additives. (1mk)
2. Label the solvent front and the baseline of the chromatograph. (2mks)
3. Sodium chloride (common salt) is contaminated with particles of zinc metal. Explain how pure sodium chloride can be obtained from the mixture. (3mks)
4. Fractional distillation of liquid air is usually used to separate various gaseous mixtures in air. Explain how the following are removed from air;
5. Carbon (IV) Oxide (1mk)
6. Remove water (1mk)

© Obtain Nitrogen (2mks)

1. The diagram below shows the relationship between the physical states of matter. Study it and answer the questions that follow.

 solid liquid gas

1. Identify processes (5mks)

R

V

W

U

S

1. Name two substances which can undergo the process represented by S and T. (2mks)
2. Solutions may be classified as strong base, weak base, neutral, strong acid or weak acid. The information below gives some solutions and their PN values. Study it and answer the questions that follow.

SOLUTION PH

A 0.5

B 7

C 14

D 9

Classify the solutions in the table using the stated classifications. (4mks)

A

B

C

D

1. In an experiment to investigate the percentage of oxygen in air, 200cm3 of air was passed over heated copper tunings repeatedly until a constant volume of air remained. 160cm3 of air remained at the end of the experiment.
2. Name four gases remaining in the 160cm3 of air. (4mks)
3. Determine the percentage of air used up during the experiment (show your working) (3mks)
4. Fill in the table below (4mks)

INDICATOR COLOUR IN ACID COLOUR IN BASE

Litmus \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Blue

Phenolpthalein Colourless \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Methyl orange \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write the chemical symbols for the following elements. (5mks)

Lead

Potassium

Calcium

Sodium

Sulphur

1. Complete the following general equations by filling the missing words in the gaps. (6mks)
2. Acid + Carbonate Salt + +
3. Acid + + hydrogen
4. Acid + \_\_\_\_\_\_\_\_\_\_\_\_\_\_ + water
5. State two differences between a compound and a mixture. (2mks) (I)

(II)

(III)