

FORM ONE CHEMISTRY MID- TERM EXAM TERM 3 2015

ADM NO..... Name..... class.....

1. Complete the word equations below.

(10mks)

Zinc + sulphuric acid \longrightarrow

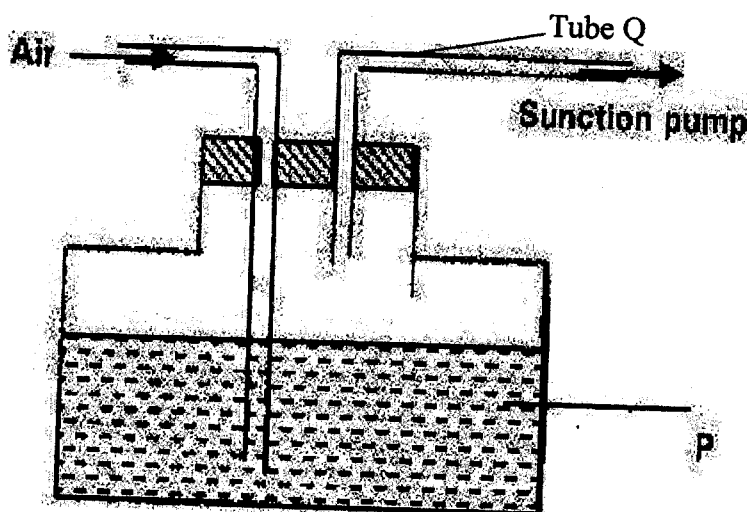
Calcium + hydrochloric acid \longrightarrow

Calcium + hydrochloric Oxide acid \longrightarrow

Calcium + hydrochloric Carbonate acid \longrightarrow

Magnesium + Nitric acid \longrightarrow

2. The following diagram is used to show that air contains Carbon (IV) Oxide.



a) Name liquid P

(1mk)

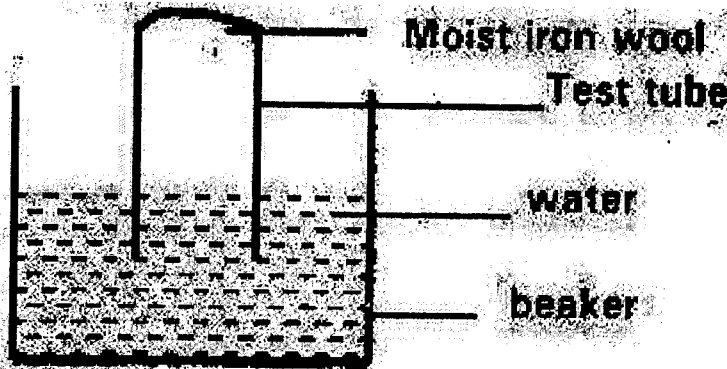
b) State the observation made on liquid P which will indicate the presence of carbon (IV) Oxide.

(1mk)

c) Name two components of air that can be detected in tube Q.

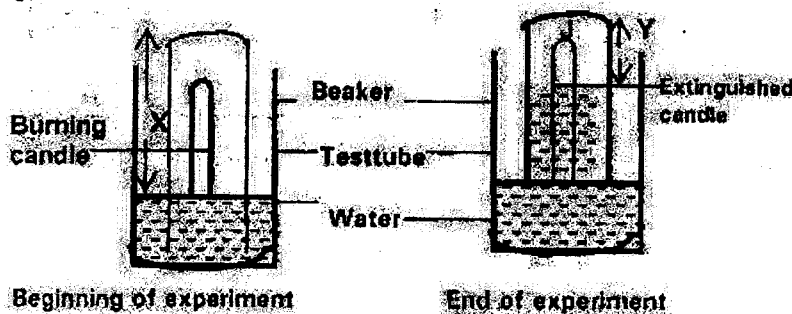
(2mks)

3. The set up below was used to study some properties of air



a) State two observations that were made in the test -tube (2mks).

b) Study the experiment set up represented by the diagram below and answer the question that follows.



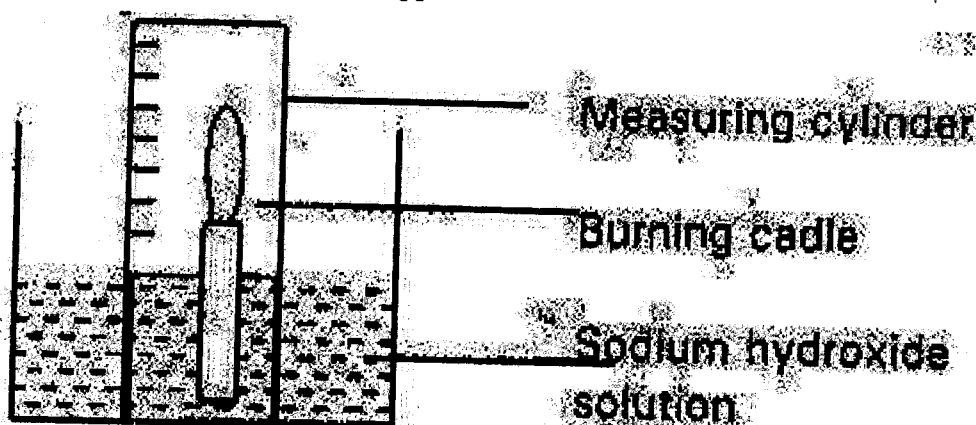
c) Why did the candle go off after some time?

(2mk)

d) Why did the level of water rise in the test - tube during the experimenmt. (2mks)

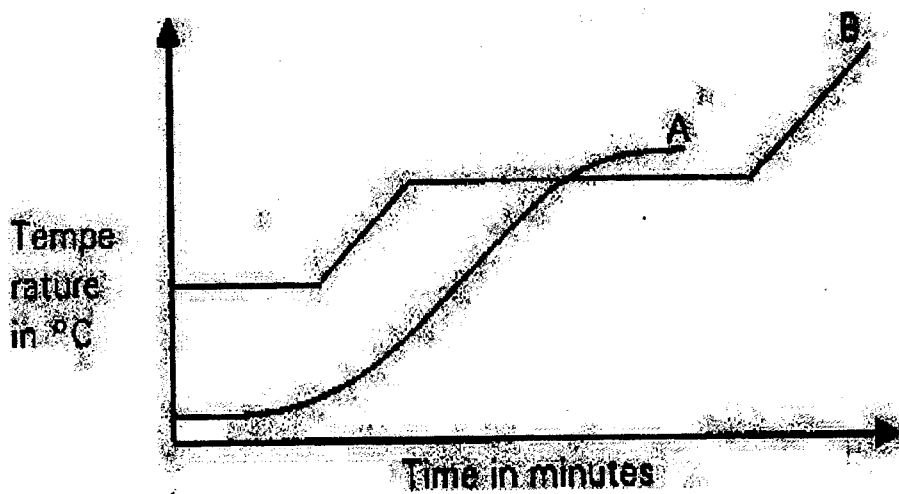
- e) Write an expansion in terms of X and Y to show the (%) percentage of gas used by the burning candle. (2mk)

4. A candle was burnt using the apparatus shown below. The initial volume of measuring cylinder was 90cm^3 . The apparatus was allowed to cool and the volume of air in the measuring cylinder had dropped to 70cm^3 .



- a) Why was the volume recorded when the air was cooled? (1mk)
- b) What was the purpose of sodium Hydroxide? (1mk)
- c) Use the results given to calculate the percentage of oxygen in air. (2mks)

5. The graph below shows the changes that occur when a pure and an impure substance are heated.



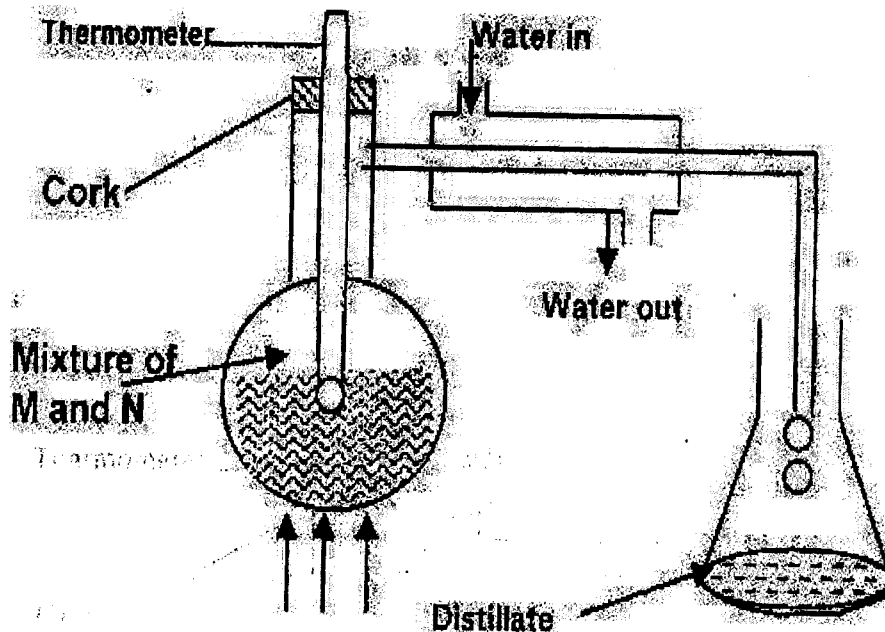
- a) Which curve represents pure substance? Explain. (2mks)

Temp.

rate

- b) Name one factor which affects the melting point of a solid and state effects. (2mks)

6. In an experiment to separate a mixture of organic liquid "m" (B.P. 56°C) and liquid "n" (B.P. 118°C) a student set up the apparatus shown below.

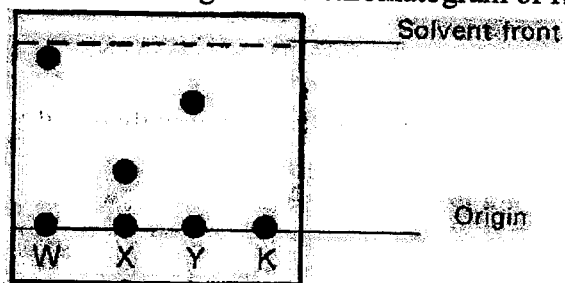


- a) Identify two mistakes in the set up. (2mks)

- b) What method would the student use to test the purity of the distillates? (1mk)

7. The diagram below represents a paper chromatogram of pure w, X, and Y. A mixture K contains W and Y only.

- a) Indicate on the diagram the chromatogram of K. (1mk)



b) State two uses of chromatography. (2mks)

8. Name the methods by which the following substances could be separated.

a) Kerosene from crude oil (1mk)

b) Coloured extract from grass dissolved in ethanol. (1mk)

c) Aluminium chloride from sodium chloride. (1mk)

d) Iron fillings from sulphur powder. (1mk)

9. Describe the steps involved in the fractional distillation of liquefied air to obtain various gases. (5mks)

10a) What is a drug?

(1mk)

b) Name two drugs commonly abused in Kenya.

(2mks)

c) Outline two social-economic effects drug abuse in Kenya.

(2mks)

END.