

GATITU SECONDARY SCHOOL, P.O. BOX 327 – 01030, GATUNDU.

FORM 1 CHEMISTRY MID TERM EXAMINATION. TERM 2 2015.

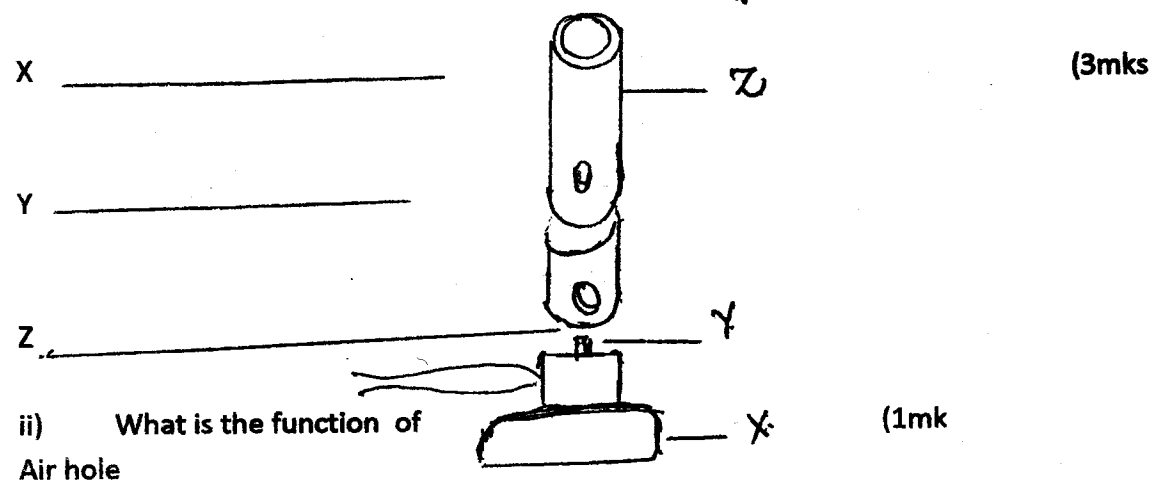
NAME: _____ **CLASS:** _____ **ADM. NO.** _____

INSTRUCTIONS:

1. Time 1 1/2 hours
2. Write your name, admission number and class in spaces provided.
3. Answer all the questions in the spaces provided below each questions.

1. List three importance of the study of chemistry. (3mks)

b) The diagram below represents a Bunsen burner. ^{Name ed} Label the parts X, Y, Z



Collar _____ (1mk)

2a) List two apparatus / equipment used to measure the mass of chemical substances in the laboratory. (2mks)

I) _____

II) _____

b) Chemical reactions vary in the time they take, before reacting completion. **BURNING** is a reaction that proceeds very fast. What instrument can be used to measure the time taken?

(2mks)

3. The table below shows results that were obtained when ice was heated in a beaker using a spirit burner. The temperature was recorded at intervals of 30 seconds.

Time (minutes)	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0
Temperature (°C)	-4.0°C	-3.0°C	0.0°C	0.0°C	1.0°C	2.0°C	2.5°C	3.0°C	3.5°C

a) Using a graph paper provided draw a graph of temperature (°C) against time in minutes (4mks)

b) Account for the shape of the graph between 1.0 minute and 1.5 minutes (2mks)

c) Predict the boiling point of water in this experiment. (2mks)

d) What instrument was used to measure temperature of ice? (1mk)

e) Explain using the KINETIC THEORY OF MATTER the change of ice to liquid water and then to water vapour. (steam) (4mk)

4a What is the name given to that change from solid to gas (1mk)

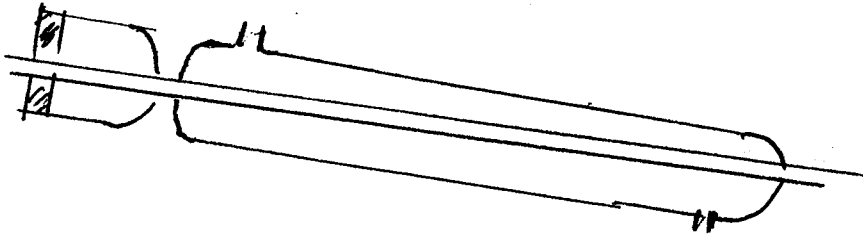
b) Name any three substances that undergo the above change when heated. (3mks)

c) When a solid substance dissolves in a liquid, it is called a solute. What name is given to;

1) Liquid that does the dissolving (1mk)

ii) The homogeneous mixture obtained? (1mk)

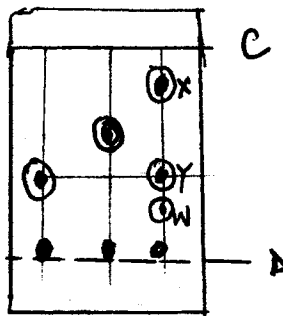
The diagram below represent an apparatus used in distillation.



a) What is the name of the apparatus? (1mk)

b) Use arrows to show movement of water into and out of the apparatus. (1mk)

7. Spots of pure pigments A and B and a mixture 2 were placed on a filter paper and allowed to dry. The paper was then dipped in a solvent. The results obtained as on the paper chromatogram.



a) Which is the Base line? (1mk)

b) Solvent front ? (1mk)

c) Which of the pure pigments was a component of Z? (1mk)

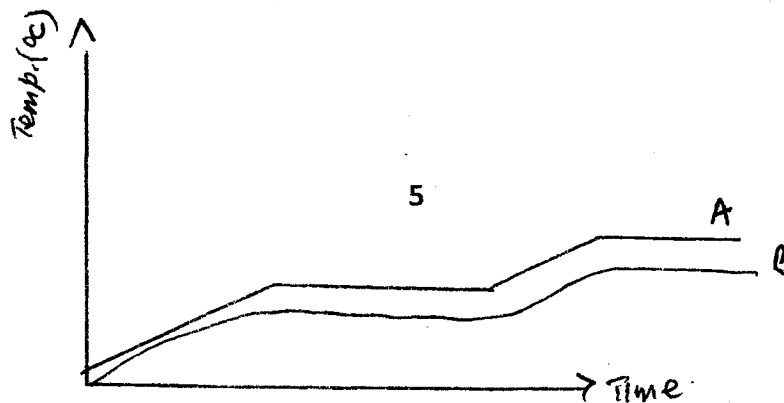
Explain (2mks)

c) i) Name a solvent that is used in a paper chromatography (1mk)

ii) Why is water not a suitable solvent in paper chromatography. (1mk)

8. Explain how you would obtain pure ammonium chloride from a mixture of lead sulphate and ammonium chloride. (5mks)

9. The curve below represent the variation of temperature with time when pure and impure samples of a solid were heated separately.



a) Which curve show the variation in temperature for the pure solid ? (1mk

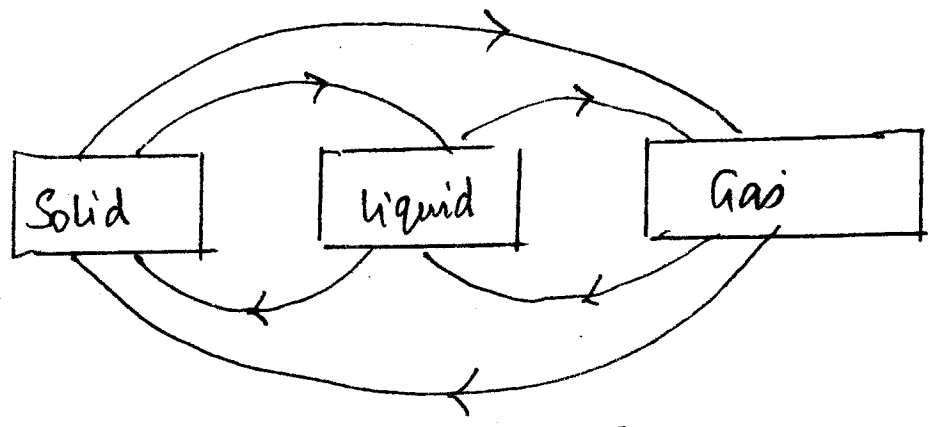
ii) Explain (1mk

b) State the effect of an impurity on the melting and boiling points of a pure substance.

i) melting (1mk

b) boiling (1MK

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



Identify the process

(2mks

R _____

V _____

W _____

U _____

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX