Student's
Name: ……..…Stream: …….

Uganda Certificate of Education

S.1 COMPETENCE BASED ASSESSMENT EXAMINATIONS

CHEMISTRY (THEORY)
2 hours

INSTRUCTIONS:

- *This paper consists of **eight** questions.*
- *Answer **all** questions in the spaces provided.*
- *Illustrations in form of drawings should be made where necessary, with a sharp pencil.*

For official use only

Number	***Score***	***comment Teacher's***
1.		
2.		
3.		
4.		

1 (a) State **two** differences between a temporary and permanent change.

(02 marks)

Temporary change	**permanent change**

(b) Write **true** or **false** for each of the following statements**. (01 mark @)**

(i) Boiling an egg is a temporary change**……**

(ii) Sublimation of iodine is a permanent change **……**

(iii) Burning wood is a permanent change**…….**

(iv) Souring of porridge is a temporary change**……**

2. Senior two students went to the laboratory and found out that it was filled with the smell of the laboratory gas. They later discovered that the smell was because one gas tap at the corner of the laboratory had been left open.

(a) Using kinetic theory of matter, explain why the smell of the gas reached all parts of the laboratory. **(02 marks)**

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(b) What is the name of the process by which the gas spread to all parts of the laboratory. **(01 mark)**

…… (c) Different states of matter undergo melting and freezing processes. State the difference and similarity of the two processes **(02 marks)**

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(d) Which of the two processes;

(i) Absorbs heat? **(01mark)**

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(ii) Releases heat? **(01 mark)**

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3. From the particle theory of matter, all matter is made up of small particles that are in a constant and random state of motion. A group of senior one students from vision for Africa High school carried out an investigation about particles of air using a balloon. They inflated it as shown below;

(a) Explain how the particles of air inside the balloon create pressure to make it swell outwards. **(02 marks)**

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(b) When the students put the balloon under sunshine for some hours, it was observed that the balloon increased in size. How can you explain this observation using the particle theory of matter? **(03 marks)**

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(c). The students left the balloon in the laboratory for seven days, after which they observed that the balloon had decreased in size. Give an explanation as to why the balloon reduced in size after seven days. **(03 marks)**

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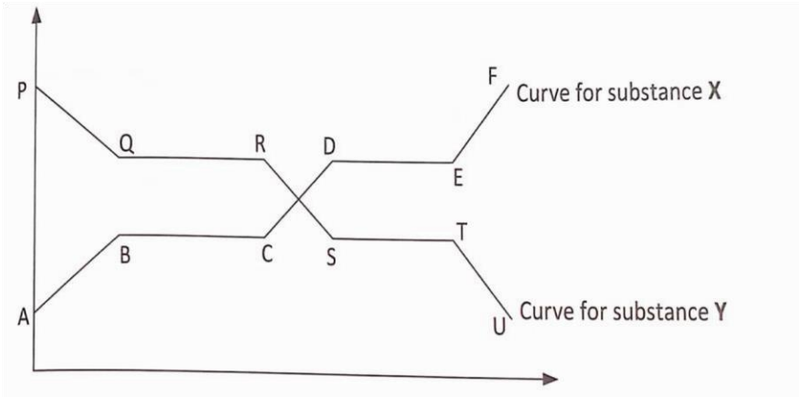
(d). Give any two differences in the arrangement and behavior of particles in solids and in gases. **(02 marks)**

Particles in solids	**Particles in gases**

4. The figure below shows the heating and cooling curves for substances X and Y. Study it and answer the questions that follow.



(a) What was the original state of substance X and Y? **(02 marks)**

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(b) Explain the shape of the curve for substance X between each of the following parts.

(i) A and B **(02 marks)**

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(ii) B and C **(02 marks)**

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(c) Explain the shape of the curve for substance Y between the following parts.

(i) Q and R **(02 marks)**

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(ii) S and T **(02 marks)**

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END