

Student's Name: Stream:

School:

Class	Stream
S. 1	

(Write your Name, Class Stream and School in the spaces provided.)

545/1
CHEMISTRY
(Theory)
Paper 1
March 2022
1 ½ hours



Uganda Certificate Of Education

S.1 COMPETENCE BASED ASSESSMENT EXAMINATIONS

CHEMISTRY

(THEORY)

Paper 1

1 Hour: 30 minutes

INSTRUCTIONS:

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

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Number	Score	Teacher's comment
1.		
2.		
3.		
4.		
5.		

1. Throughout ages, curiosity has made man to explore more about his surrounding and the things that make livelihood meaningful. In doing so, a lot of knowledge about substances has been built up, this partly makes up what we call **chemistry**.

(a) Give a brief description of the meaning of the term **chemistry**. (01 marks)

.....

(b) Chemistry is said to be a laboratory science. Give a reason why chemistry is categorized as a laboratory science. (01 mark)

.....

(c) The figure below shows some examples of important chemical reactions in our daily life.



(a) Study them carefully and write down one importance of each of them in our daily life.

Write your answers in the table below;

(08 marks)

Chemical reaction	How it is important in our daily life

2. Chemistry is one of the most prestigious science subjects studied at the secondary level of Education. When you study chemistry, you not only acquire knowledge about many chemical reactions and other substances, but you can also take up various careers after school.

(a) Identify any three careers that you can take up through studying chemistry. **(03 marks)**

.....

(b) Briefly describe how the knowledge of chemistry has been applied in the following field in the Ugandan economy;

(i) Agriculture. **(03 marks)**

.....

(ii) Medicine. **(02 marks)**

.....

(iii) Cosmetics industry. **(02 marks)**

.....

3. In Chemistry, chemical experiments require a special room for carrying them out, although some experiments may be done outside in an open place. This place is called a **laboratory**. It is however important that utmost caution is taken while in the laboratory to ensure safety for everyone carrying out the experiment.



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- [illegible]

4. 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 two students from EDUCAN 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)

.....

.....

.....

- (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)

.....

.....

.....

.....

(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

5. Equipment used in the laboratory for different experiments are called Apparatuses. Like other work places e.g. kitchens and gardens, different tools are used for different roles. Using your knowledge about laboratory apparatus and experimental chemistry, identify the most suitable apparatuses that can be used to carry out the following steps in an experiment;

(a) Measure 200 ml of water and boil the water. (02 marks)

.....

(b) Take out 10 drops of liquid A from bottle Q and 10 drops of liquid B from bottle P.

Then mix A and B. (02 marks)

.....

(c) Measure 5 g of salt and 100 ml of water. Dissolve the salt in water by mixing and stirring them. (03 marks)

.....

(d) The figure below shows some apparatuses used in a chemistry laboratory. Identify any **three** apparatuses shown in the figure, and state one use of each in a Chemistry lab. (03 marks)



Apparatus from the picture	Use

END



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