Candidate's Name: .....

Signature: .....

Index NO								

545/1

CHEMISTRY

Paper 1

July - August 2024

2 hours

KAMSSA JOINT MOCK EXAMINATIONS

Uganda Certificate of Education

CHEMISTRY

Paper 1

2 hours

Instructions to candidates

- *This paper consists of **two** sections; **A** and **B**. It has six examination items.*
- *Section **A** has **two** compulsory items.*
- *Section **B** has **two** Parts; **I** and **II**. Answer **one** item from each part.*
- *Answer **four** items in all.*
- *Answers to Section **A** must be written in the spaces provided while those of*
- *Section **B** must be written on the answer booklet(s) provided.*
- *Any additional item(s) answered will not be scored.*

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SECTION A

Answer all items in this section (30 scores)

Item 1

Sheillah and Onyango have teamed up to make components for cooking using electricity. They wanted to make electric wires, sauce pans, mingling sticks using the following substances available which are aluminium, magnesium and silicon dioxide but are stuck which materials are to use were.

Task

You as a learner of chemistry advice Sheillah and Onyango on which substances they can use to make those materials explaining to them the choice of each substance.

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Item 2

Residents of Bunamwera village are known for growing soya beans that grow very well in soils which are neutral that is to say neither acidic nor alkaline. For the past three years there has been a gradual decrease in the production of soya beans which is making the residents so warried as their major source of livelihood is at the verge of perishing. The speculations going around is that the soils are no longer neutral.

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Task

i) You as a leaner of chemistry you are required to settle the speculations. What procedures will you do using any acid base indicator of your choice to settle this speculation.

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ii) Suppose you find out that the soils are indeed not neutral but are acidic, what advise will you give to the farmers to solve this problem.

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SECTION B
PART I
(Answer one item from this part)

Item 3

Sodium hydroxide is an inorganic compound that is mostly used by the chemical industries to manufacture a wide range of products like soap, paper, and petroleum products among others. This has increased demand from local manufacturing industries in the country. Therefore, to ensure that it is readily available and at a cheaper cost, the government of Uganda has decided to set up a sodium hydroxide manufacturing plant in your village. However, the local community is concerned about its environmental effects and how the process of production will occur.

You have been selected as a chemistry student to sensitize the local community about the process of production of sodium hydroxide and it's environmental effects.

Task.

Prepare a presentation you will deliver during the meeting with the local people.

Turnover

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Item 4

Air is the mixture of different components. It contains 21% oxygen, 78% nitrogen, 0.03% carbon dioxide water vapour and inert gases. Due to a wide spread of respiratory illnesses caused by COVID-19 there was an increased demand for oxygen by the patients in the hospitals. The government supply of oxygen is not enough and is planning to setup an oxygen production plant with minimal environmental impact.

However, the local people around your school would like to know how the process of production will be carried out.

Task

As a chemistry student, make a write up you will use during the presentation.

PART II

Answer one item from this part

Item 5

Stone quarrying is one of the key extractive economic activity in Buntaba village in Buikwe district; supplying stones to the construction industry. People of this village for a long time practiced other economic activities like charcoal burning, crop and animal husbandry, yet the village is over populated. The environment has started experiencing environmental changes in the climate, soil erosion, poor air quality and the little water available is undrinkable. The locals are now wondering why all these are happening and some has started attributing it to witchcraft.

The chairperson LC5 has organized a sensitization workshop to explain to the locals the existing situation. The theme of the workshop is MY ENVIRONMENT IS MY RESPONSIBILITY.

Task

As a chemistry student write a message you will deliver upon invitation.

Item 6

Uganda has substantial natural resources including forests, lakes and rivers, rocks, mineral deposits such as copper, limestone and gold. Due to the increasing population and human activities the resources are being exploited which has led to environmental degradation.

The world life club is planning to create awareness to the people around the school through a sensitization workshop organized by the chairperson L.C.3

Task

As a chemistry student, prepare a presentation you will deliver during the workshop upon invitation.

END

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