Candidate's Name: …………………………….…………………………

Signature: …………………………. **Index Number:** ……………………

545/1

CHEMISTRY

Paper 1

2024

2hours

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.

Answer **all** items in this section

Item 1

Musa is increasingly losing customers who are always complaining that his hand made fruit juices are constantly losing their natural colours.

In order to cater for customers' complaints, Musa wants to add some ingredients to his fruit juices but he lacks knowledge of what exact ingredient he should use and has come to you for advice to solve the issue at hand.

Task:

As a chemistry learner, write down a short message you would give him.

In your message include,

a) Categories of the ingredients he should use.

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

b) Guide him on how the ingredient work.

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

c) Advise him on the dangers associated with the long-term use of the ingredient.

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

Item 2

The government wants to construct a new strong dam in Isimba along River Nile in order to increase on hydroelectric power production. It has hired a Chinese civil engineering company to start on this project using different building materials on market that have minimal environment impact.

The chief engineer of the company has promised the government that he will select suitable materials to be used basing on their properties.

Task:

Use your chemistry knowledge to, advise on;

a) Categories of materials to be used.

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

b) The suitability of the materials

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

…………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

a) The choice of the materials.

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

……………………………………………………………………………………………

SECTION B

Answer **one** item from this part in the booklet(**s**) provided.

Item 3

Rocky ores in kangu village have been discovered to be rich in aluminium, a substance used to make electricity overhead cables. The government is seeking to increase on number of electricity overhead cables to distribute electricity to various regions and thus has hired an investor to set up an aluminium manufacturing plant in kangu village.

However, the locals would like to know how the production process will be carried out how the plant will impact their area.

Task:

Prepare a presentation you will make responding to the concerns of the locals.

Item 4

Ethanol is a major component in sanitizers. Following an increased demand for sanitizers countrywide due to covid-19 spike. The government has hired a local investor to set up an ethanol brewing plant in jinja industrial area to make more ethanol to be used in sanitizers.

The jinja city council would like to know how ethanol will be produced and how the plant will impact the environment of their city.

Task:

Make a write up you will deliver to jinja city council responding to their concerns.

Answer one items from this part in the answer booklet(s) provided.

Item 5

There has been a nationwide destruction of natural resources due to increasing population and human activities. This has attracted the attention of officials from national environment management authority (NEMA).

The officials are planning to sensitize people countrywide about natural resource conservation through organizing workshops in different districts.

Task:

As a chemistry learner, write a message you would deliver upon invitation in workshop organized in your district.

Item 6

People in seroma village have often been found to be carrying out bush burning, overgrazing and stone quarrying. They are now facing breathing problems and low soil fertility and are now wondering why this happening.

The LC 1 chairman has organized an emergency village meeting with a theme, **ENVIRONMENT "CONSERVATION, A RESPONSIBILITY FOR ALL".**

Task:

As a chemistry student and one of the village members, make a write up about theme that you will present in the village meeting.

END