Candidate's Name:____________________________________

Signature:________________

Random No.						**Personal No.**		

(Do not write your School / Centre Name or Number anywhere on this Booklet)

545/1
CHEMISTRY
Paper 1
Feb/March. 2025
2 hours

JOSELO CBC CHEMISTRY SERIES 1 2025

UGANDA CERTIFICATE OF EDUCATION

CHEMISTRY

Paper 1

Time: 2 hours

INNSTRUCTIONS TO CANDIDATES:

The 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.*
Answer 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.*

Use where necessary;

Ca = 40; C = 12; O = 16; 1 mole of a gas occupies 22.4 dm^3 *at s.t.p.*

Turn Over

ITEM 1:

A catering company in Wakiso district serves delicious food in major celebration functions. On a certain graduation party, guests were amazed at the aroma and taste of the food served, as it was so delicious. The manager of the catering company gave out business cards to guests and assured them that the company foods are always prepared by knowledgeable chefs with background of chemistry but some of the guests wanted to understand what the catering company Manager meant!

Task

As chemistry learner, basing on the communication from the manager, help the guests to understand:

(a) The variety of the ingredients used.

(b) The suitability of the ingredients

(c) The possible problems associated with, and choice of the ingredients used.

ITEM 2 (iii): (Elements, compounds and Mole concept)

Charcoal is a common fuel used in many homes in Uganda. During its combustion in excess supply of oxygen, it produces carbon dioxide. Your friend is using 80.5g of charcoal to cook food in a busy evening for guests. It burns completely as shown in the equation below. Equation is $C_{(s)} + O_{2\ (g)} \rightarrow CO_{2\ (g)} +$ Heat

Task

As a learner of chemistry

a) Assess the category of the product formed

b) Advise the friend on the appropriateness of the product formed.

c) Calculate the volume of the gas produced every busy evening.
(1 mole of a gas occupies $22.4l$ at s.t.p, C = 12)
Help the friend understand the impact of the product in the environment

ITEM 3:

At Lake Katwe in Kasese District, Uganda, there are significant rock salt deposits. Discussions are underway in your class regarding the operations of a proposed chlorine plant. Students are unclear about how chlorine is manufactured from raw materials and its advantages.

They need guidance on the production process, emphasizing safety and environmental concerns.

Task

Write down your presentation in the discussion.

ITEM 4:

There is high demand of oxygen in referral hospitals in Uganda. An investor was contacted by government to set up an oxygen manufacturing plant at Namanve, one of the swamps near Kampala to tap into the opportunity. However, the residents seem not to understand how the process will occur plus its consequences and are resisting the project.

As a **senior four** candidate with the knowledge of chemistry, you are required to create awareness to the members and provide the necessary information.

TASK

Write a presentation you will use upon meeting them.

ITEM 5:

In Uganda, there are many mineral reserves and rocks. Due to the rapid population growth, their exploitation is causing proportional environmental degradation. The government through media houses wants to make public awareness on the matter. Your school has been chosen to lead the environmental conservation campaign in your district.

You have been chosen to present on one of the radio talk shows trusting your chemistry knowledge on natural resources.

TASK

Write down the information that can be conveyed

ITEM 6:

Urbanization and industrialization have caused fresh water bodies to suffer from severe pollution. The Ugandan government aims to create public awareness regarding the natural resource through various initiatives. One of the initiatives is to involve students with good knowledge of chemistry in radio talk shows.

TASK:

Write the presentation you can use.

Learner's Response

END