

Candidates'

Name:.....

Signature:.....

545/1

CHEMISTRY

PAPER 1

2 HOURS

KIYALA HIGH SCHOOL
MID TERM 2 ASSESSMENT TEST 2025
CHEMISTRY
S4

INSTRUCTIONS:

- This paper consists of **two** sections, **A** and **B**. It has **six** examination items.
- Section **A** has **two** compulsory items.
- Responses to this section are to be written in the **spaces** provided in this booklet.
- Section **B** has **two** parts, **part one** and **part two**.
- Answer **one** item from **each** part in section **B**.
- Responses to this section are to be written in the **answer booklet** provided.
- Any additional item answered will not be scored.
- An **untidy** work will lead to loss of scores.

FOR SCORER'S USE ONLY	
SECTION A	
SECTION B	
TOTAL SCORE	

SECTION A

(Attempt *all items* in this section)

Item 1:

A hospital in Kampala uses a certain substance which is suggested to be having half-life of 8 days for medical imaging and treatment of thyroid conditions. Due to an oversight, 200 grams of unshielded substance waste was left in an unsecured area for 24 days before proper disposal. A cleaner, Mr. Okello, unknowingly spent several hours near this waste during his shift.

Task:

As a learner of chemistry;

- a) Identify the category of the substance often used by the hospital in Kampala.

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- b) Determine how much of the substance will have remained after 24 days.

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- c) Mr. Okello is concerned about his exposure. Explain to him some of the potential long-term health effects that could arise from prolonged exposure to this substance.

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Item 2:

Along the shores of Lake Victoria, fishing is a major economic activity. Traditionally, some fishing nets were made from fibres, but nowadays, most are made from nylon. Unfortunately, old and damaged nylon nets are often discarded directly into the lake.

Task:

As a learner of chemistry;

- a) Identify the category of the polymer used nowadays.

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- b) Predict the properties that make nylon a preferred material for modern fishing nets over fibres.

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- c) Discuss the long-term environmental impact of discarded nylon fishing nets in Lake Victoria.

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SECTION B

PART I

(Attempt *one item* in this part)

Item 3:

Due to the government's initiative to boost agricultural output, a cornerstone of Uganda's development goals, a proposal has been announced to establish a manufacturing plant in the agriculturally significant district of Kabale that makes Urea fertilizers.

However, due to lack of comprehensive information regarding the intricacies of the industrial processes involved, coupled with anxieties about potential repercussions on Kabale's renowned environment and perceived threats to the well-being of its residents, the local community has expressed reservations and opposition to the proposed fertilizer plant. You have been identified as the knowledge person to speak to the residents of Kabale in a radio talk show.

Task:

Make a write up of the speech you will use that day during the talk show.

Item 4:

Mirembe steel mills deals in producing deferent steel beams used to strengthen bridges. The company manager realized that the iron that they have been using to make steel alloys is not pure and he decided to set up his own iron extraction plant to ensure quality products and lower the production costs of making steel. He has appointed a team of engineers to plan and present the project to the Board for approval. You have been called upon to be part of the team of engineers.

Task:

Prepare a presentation you will present to your team members and to the board of governors during the meeting.

PART II

(Attempt *one item* in this part)

Item 5:

A rapidly growing industrial area near your town relies heavily on coal-fired power plants and older, less efficient factories. Residents have noticed a significant increase in respiratory problems, especially among children and the elderly.



The local health clinic is reporting a surge in asthma cases and other lung-related illnesses. This has prompted the officials to create awareness to people on community meeting under the theme "*CLEAN AIR: A BREATHING RIGHT.*"

Task:

As a chemistry learner, prepare a presentation for a community meeting.

Item 6:

Farming, washing of clothes and industrialization has caused fresh water bodies to suffer severe pollution. The government of Uganda aims to create 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 a presentation you can use.

END