

Name ----- Signature-----

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**545/1**

**CHEMISTRY**

**Paper 1**

**2024**

**2 hours**



**ASSHU KIGEZI REGIONAL JOINT MOCK**

**New Lower Secondary Curriculum**

**CHEMISTRY**

**Paper 1**

**2 hours**

**Instruction to candidates**

This paper has six examination items which are divided into two sections A and B

Section A has two compulsory items. Answers to section A must be written in the spaces provided.

Section B has two parts; I and II. Answer one item from each part.

Answers to section B must be written in the answer booklet (s) provided.

Answer four items in all.

Any additional item answered will not be marked.

**For examiners use only**

1	2	3	4	5	6

## SECTION A

Attempt all items in this section in the spaces provided.

### Item 1.

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



The chief engineer of the company has promised the government that he will select suitable materials to be used basing on their qualities and properties but has approached you for help.

### Task.

Use your chemistry knowledge to;

(a) Explain

(i) Category of materials to be used.

(03 scores)

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(ii) The suitability of the materials.

(04 scores)

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(b) Advise the chief engineer about the impact of the materials to the environment

(02 scores)

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## Item 2

In the school laboratory, students were investigating the nature of the solutions obtained from different fertilizers used by Rubanda district residents by identifying their PH values. Some residents had complained about poor yields of their crops while others had harvested much after constantly applying the fertilizers. The results obtained were recorded in the table below.

Solution	P	Q	R	S	T
PH values	8.2	7.0	2.0	11.2	5.6

**Task.**

As a chemistry learner,

(a) Explain

(i) The categories of the fertilizer solutions above.

(03 scores)

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(ii) The suitability of the fertilizers.

(03 scores)

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(b) Give the dangers associated with long term use of the fertilizers. (03 scores)

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## SECTION B

### Part I

Attempt one item from this part in the answer booklet(s) provided

#### Item 3

One of the large scale uses of sulphuric acid is to manufacture paints. Due to increased demand of paints countrywide, the government is seeking to ensure there is steady supply of sulphuric acid to be used to manufacture the needed paints. The government has hired an investor to setup a sulphuric acid production plant in Kitumba industrial area in Kabale district.



The locals of Kitumba are concerned about how the production process will be conducted, its environmental effects and how they will benefit when the plant is constructed in the area.

### Task

As a chemistry learner, Prepare a presentation you will give answering concerns of the locals. (11scores)

### Item 4

Ethanol is a major component in sanitizers. Following an increased demand for sanitizers countrywide due to Covid-19 outbreak, the government has hired a local investor to setup an ethanol brewing plant in Kigezi region to make more ethanol to be used in sanitizers.



The natives in the area would like to know how ethanol can be produced and the impact of the plant to the environment.

**Task.**

As a chemistry learner, make a write up that you will use to educate the natives about the plant. (11 scores)

**Part II**

Attempt **one** item from this section in the booklet(s) provided

**Item 5**

Jombo is a swampy village with a forest reserve on its hill side . People of this village have for long time cleared the swamps for settlement, rice farming and dumping of human waste as well as cutting trees from the forest reserve for charcoal burning. This has attracted the attention of officials who are seeking to

create awareness about conservation of the village environment through a radio talk show.



**Task.**

As a chemistry learner, prepare a short message you would like to be delivered by one of the officials on the radio talk show. (11 scores)

**Item 6**

There has been a rise in destruction of natural resources country wide for the last ten years and this have attracted the attention of officials from NEMA.



The officials are planning to sensitize the countrywide about sustainability through a nationwide TV.

**Task.** As a chemistry learner, make a write up you would deliver upon invitation to be one the presenters on the nationwide TV. (11 scores)

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