

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

June/July 2024

2 hours



UNITED TEACHERS' EDUCATION BUREAU

MOCK EXAMINATIONS

Uganda Certificate of Education

CHEMISTRY

Paper 1

2 hours

New Tower Secondary Curriculum.

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.

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.

SECTION A

Answer all questions in this section.

Item 1:

Two students, Peter and James were suffering from the same illness. They were both diagnosed with a bacteria infection from the nearby health centre III. They both later bought medicine from different pharmacies in their villages. Peter after using the medicine, the illness was cured while as for James the headache was cured but the infection persisted.

Support Material



As a chemistry student,

(a) Help to categorise the medicine the students bought.

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(b) State the function of the drugs the students bought.

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(c) Explain the side effects of the drugs stating the mitigations.

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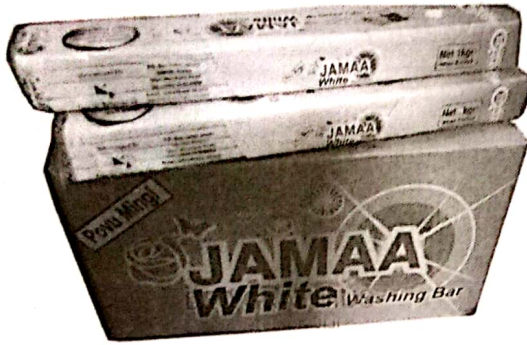
(d) Evaluate the two drugs.

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Item 2.

Parents of Nyabikoni Secondary School complained about how fast the shirts of their S.3 students got stained brown. The wardens when contacted by the parents about the issue, advised the parents to buy for their children the best detergents that would help them to remove the brown stains from their uniforms.

Support materials



As a Chemistry student in S.3 help the parents to make the best choices on the market.

Tasks:

- (a) Guide the S.1 students on the categories of detergents on market recommending the best with a reason.

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- (b) Show how the recommended detergent removes the stains from the shirts.

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- (c) Comment on the dangers / side effects of the recommended product to the environment.

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(d) Advise the students on how the above dangers can be mitigated.

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SECTION B

Part 1

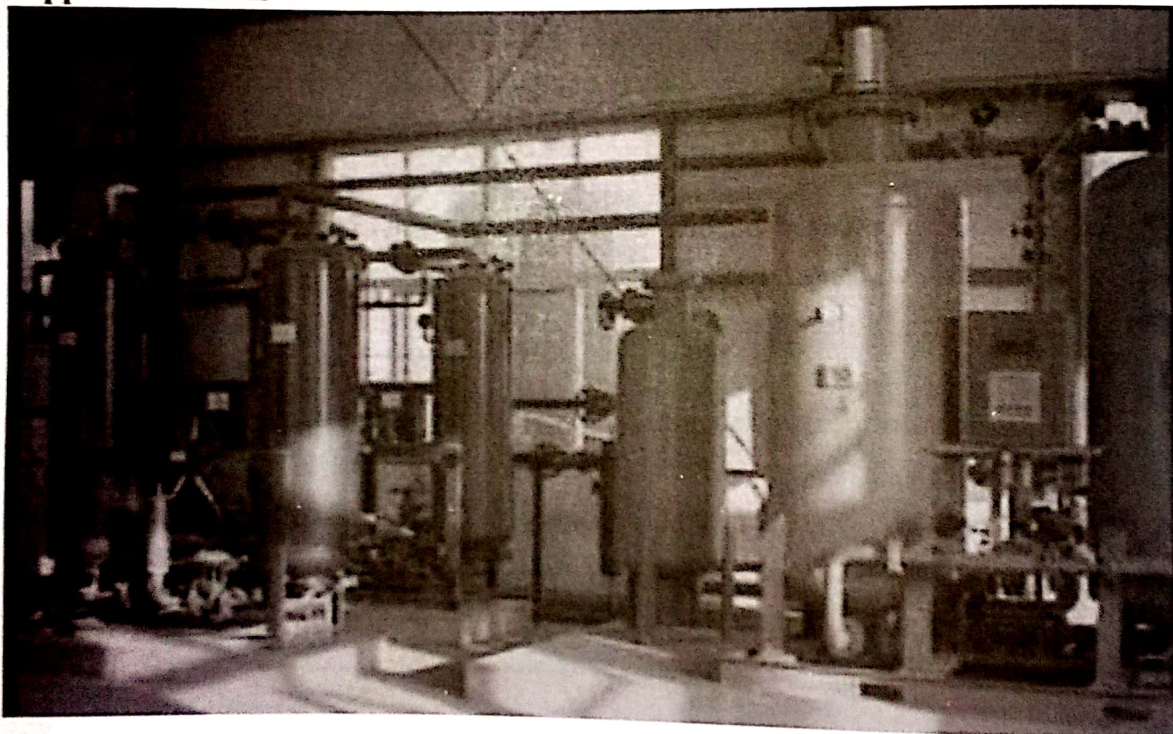
Answer one item from this part.

Item 3.

People of Kalangala Island have got limited supply of soap yet they grow alot of palm oil plants. They have knowledge about the manufacture of soap but they have a limited supply of sodium hydroxide which is a raw material for the manufacture of soap.

An organisation wants to set up a Sodium hydroxide manufacturing factory in the area but they have little knowledge about the process and its impact on the environment.

Support Materials



The organisation chairperson has contacted you to give advice on how to manufacture Sodium hydroxide and its related dangers to the people and environment.

Task:

Make a write up you would use.

Item 4.

Due to rapid infrastructural development in most of the towns in the country, the demand for iron has increased since it gives buildings a good artistic impression.

The government has recently discovered the presence of iron ore deposits in Sikulu hills in Eastern Uganda. The government wants to setup a factory to extract iron in its impure form for a continuous supply.

However, the residents are worried about the environmental effects due to the iron extraction and have put a lot of resistance to frustrate the project.

Support Material



You have been selected as a chemistry student by the Chairman L.C.1 of Sukulu Village to comfort the residents that the factory is a necessary evil.

Task:

Make a write up you will use upon meeting the community.

Part 2.

Answer one item from this part

Item 5.

A technical team from National Environment Management Authority (NEMA) is making research about the air quality in Namanve industrial park in Mukono District. The area has many industries that release waste gases to the atmosphere. The authority has engaged stake holders including your school to make a detailed research report.

Support Material



Task:

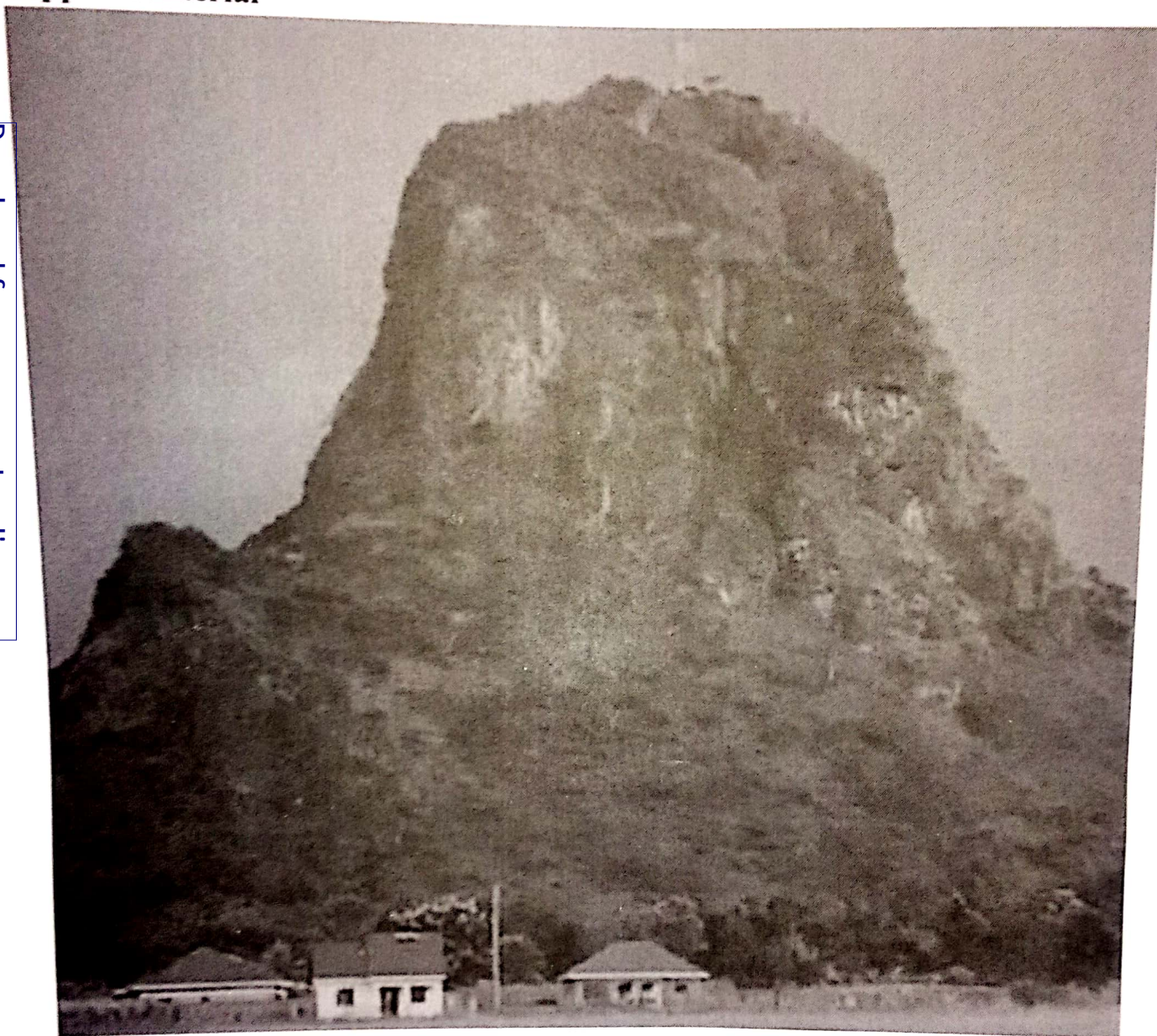
As the Chairperson of the Environment club at your school, prepare a detailed report for them to use as a research tool.

Item 6.

There are many rocks around your community but the residents see no value in them although their need for infrastructure development in most towns is high. The government has identified a local investor who wants to set up a quarry in the area. The residents have resisted the development of the quarry claiming it has many challenges to their lives and environment.

Support Material

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As a chemistry student, you have been identified by the district environment officer to talk to the residents about the investor's project.

Task:

Make a write up you will use upon meeting the residents.

END