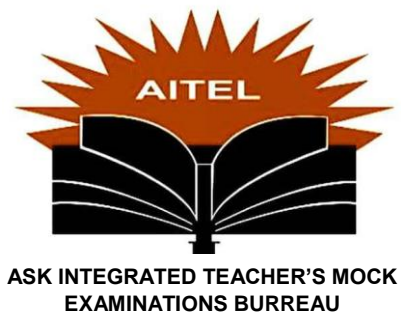


545/1
CHEMISTRY
PAPER 1
JULY/AUG 2024
2hours



AITEL JOINT MOCK EXAMINATIONS.

Uganda Certificate of Education

CHEMISTRY

PAPER 1

Theory

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.

SECTION A

Answer **ALL** items in this section.

Item 1

A business lady owns a flower farm in **ADUK** village in Uganda. She is in the process of searching for quality plastic boots that are environmentally friendly. There are various boots of different quality and composition in the nearby shops. However, she does not know then quality of the boots to purchase.



However, the business lady knows that quality boots depend on the nature material and here she comes for some advice from you.

Task;

As a chemistry student,

Explain

(i) Category of the product. (03 scores)

(ii) The suitability of the product. (04 scores)

(iii) Advise her on the choice of the product she should go for. (02 scores)

Item 2.

After digging a trench, Okopa felt some pain in the hand muscles. He went to a nearby bush and got some leaves of one plant. Using water, he prepared an extract from the leaves. He took some and bathed the rest. Four hours later, the pain was still too much and was frustrated



Task

Using the knowledge of chemistry, you have attained

- a) Cite out the problem Okopa made when choosing the product. **(03 scores)**

- b) Guide him to understand how the product functions. **(03 scores)**

- c) Advise him on the likely challenges he will get for continuous use of the product. **(01 scores)**

d) Guide him to evaluate the products.

(02 scores)

SECTION B

PART I

Answer one item from this part.

ITEM 3

Uganda builder's forum raised a concern of high revenue imposed on the imported iron nails. Government has cleared an investor to set up an iron and steel production plant in Tororo district. However, the community is concerned about its environmental effects and how the establishment of the plant in their locality claiming that the plant is not important to them.



You have been appointed by the president of the science club to represent your school in the forthcoming forum workshop with the community.

Task

Prepare a presentation you will make during the workshop.

(11 scores)

Item 4

The chairperson of Ntuuka village in Mityana district has banned residents from using charcoal as their homesteads. The idea was to reduce deforestation trends in the region. She has heard of biogas as a better alternative and would like to set up a biogas in production unit at her residence as a demonstration point for the community but with minimum environmental impact. Many of the residents have less interest in this unit and some have gone beyond saying it will be of no use to their community.



She has contacted you as an educated member of the community to sensitize the residents in a community meeting on how the process of production can be carried out.

Task

As a chemistry student, make a write up you will use during plenary. **(11 scores)**

Part II

Answer one item from this part.

Item 5

Many factories have mushroomed in Matuga areas along Bombo Road producing toxic fumes to the environment. There is an increase in population due to many people coming to the region for employment opportunities in the factories. Much of the vegetation is being cut while clearing land for construction of their buildings. Recently, the walls have dried up and the little water is not fresh. Drought conditions have started sprouting up in the region. All these have left many of the residents wondering why. This has attracted the attention of the environmental protection committee of the region.



The officials are planning to organize a workshop and sensitize the members in the region over the matter.

Task

As a chemistry learner, make a write up you will use to present upon invitation.

(11 scores)

Item 6

Fresh water bodies like lakes and rivers have been heavily encroached on as a result of increasing Uganda's population. On this year's **world environmental day**, National Environmental Management Authority (NEMA) wishes to raise public awareness among the Ugandans on the matter.



The science club at your school has selected you to give a presentation on that day following a theme “**SAVE MY WATER BODIES**”.

Task;

Make a write up you will use upon the invitation.

(11 scores)

END