

Learner's name:

Signature:

545/1

CHEMISTRY

Paper 1

(Theory)

Nov/Dec. 2024



NELSON MANDELA SECONDARY SCHOOL MASAKA
New Lower Secondary Curriculum

END OF YEAR EXAMINATIONS 2024

S.3 CHEMISTRY

Theory Paper 1

2¹/₂ hours

Instructions to candidates:

- *This paper is made up of **two** sections, **A** and **B**.*
- *Section **A** has two items. Respond to all the items in this section.*
- *Section **B** has two parts **I** and **II** each of which consists of two items. Respond to only one item from each part in this section.*
- *For section **A**, **fill** your responses **in the gaps** left.*
- *Responses to section **B** **must** be presented on the answer **sheet/booklet** given.*
- *Silent nonprogrammable calculators may be used.*

SECTION A

Item1

On her way back from school on a certain rainy day, Mary got disappointed by a speeding saloon car which splashed dirty water onto her white uniform. She decided to buy a piece of detergent which nearly got used up without foaming but rather making brown precipitates in water and spots in the shirt. This was due to a lot of white chalk dust which Mary used to keep in her pockets for revision on the blackboard when at school.

Task

- a) What mistake did Mary make in choosing the category of the detergent?

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..... 3scores

- b) Advise Mary on how the product works.

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..... 3scores

- c) Help Mary to assess the product to the environment.

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Item 2

Polythene is industrially produced by polymerization of an organic compound M with molecular mass 28. On critical analysis, a single monomer M, contains 85.7% carbon the rest being hydrogen.

- a) Using the analytical data given, determine the molecular formula and name of the monomer M.

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..... 3scores

- b) Polythene is prominently used as a packaging material in local industries and retail supply shops and the users are ignorant about the implications of the material in use.

Task

- i) Advise the users on the category of the material.

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..... 2scores

- ii) Advise them on the suitability of the material.

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- iii) Help them to evaluate the material

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SECTION B

Part I

Item 3

It is well known that air is a mixture of gases with 21% oxygen. As the demand for oxygen has increased in the hospital right from the covid – 19 season when the people’s respiratory systems were highly affected by the disease, the government has planned to set up oxygen manufacturing plants in local communities, yours inclusive but the locals of your community are asking each other on how the process of production will be conducted and you are concerned with sensitizing them.

Task

Prepare a write up that you would use in your presentation.

11scores

Item 3

JOHNGE white washing bar is currently loved by many people because it is a new product on market. The manufacturers of this product are learners of Nelson Mandela S.S. At the beginning of this year, the new learners especially those of S.1 were challenged by the difficulty in the processes involved in the production of the JOHNGE product until the facilitator selected a day for orientation of the new learner on the process of production.



Task

Design a write up that would be used by the facilitator in the orientation on the process.

11scores

Part II

Item 4

Magezi grain millers industry is located in Kyabakuzi town Masaka city. The factory was established at the upper edge of Nabajjuzi swamp alongside Mbarara road. A lot of polythene and plastic materials used by the workers are dumped into the swamp. People used to catch mud fish from the swamp but all the fish died to extinction. The community people are currently complaining of the activities of the factory workers which eventually forced them into an attempt to attack the factory director.

The city mayor in conjunction with the city environment officer got concerned and organized a sensitization workshop for the people about the issue.

Task

Write up for the message that would be delivered to the people in the workshop.

Item 5

In your village, most of the occupational activities are agricultural based. People grow cash crops on large scale using the so called advanced methods like irrigation, application of inorganic fertilizers and spraying with agrochemicals. Vast areas that were once covered with bushes and natural forests were and are still being cleared for extension of the crop farmlands. You live in an educated family whose members are all worried of the implications of the local activities and the family has entrusted you to secretly approach the NEMA offices for the report on this concern.

Task

Make a write up for the report you will deliver to the officials.

*****MERRY XMAS AND A HAPPY NEW YEAR*****