

545/2
Chemistry
Paper 2
July - August 2024
2 Hours



UGANDA MUSLIM TEACHERS' ASSOCIATION
UMTA JOINT MOCK EXAMINATIONS-2024
UGANDA CERTIFICATE OF EDUCATION
Chemistry

Paper 2
2 hours

NAME.....

INDEX NO.....SIGN.....

INSTRUCTIONS TO CANDIDATES:

- *This paper consists of **one compulsory** item. Answers to this item are to be written in the spaces provided in this booklet. Use **blue or black ink**.*
- *All working **must** be clearly shown. Graph paper will be provided.*
- *Mathematical table and silent non-programmable scientific calculators may be used.*
- *You may **not** be allowed to use reference books (i.e. text books, booklets on qualitative analysis etc.)*
- *Candidates are advised to carefully read the item, make sure they have all the apparatus and chemicals they may need and then **plan** appropriately before starting.*

Item 1.

In a large shopping mall, the outdoor walkways and entranceways have recently become heavily stained due to high foot traffic. The cleaners in this mall have developed a cleaning mixture that consists of a soap solution and hydrogen peroxide for restoring the appearance of the walkways and entranceways.

However, there is need to increase the frothing of the mixture for effective cleaning process and one of substances X and Y is to be used for this purpose.

The cleaners are not sure which of the substances X or Y is a better frothing agent.

You are provided with;

- You are provided with;
- MnO_2 — (i) substance X — 0.5g
- PbO_2 — (ii) substance Y — 0.5g.
- (iii) soap solution
- (iv) hydrogen peroxide solution
- (v) some apparatus

Task:

- (a) Design an experiment to help the factory workers address their concern.

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(b) Carry out the experiment and record your data

(c) Analyse your data and draw a conclusion.



END