545/2

CHEMISTRY

Paper 2

July/august 2024



UNNASE MOCK EXAMINATIONS

CHEMISTRY PRACTICAL PAPER 2 2 HOURS

INSTRUCTIONS TO CANDIDATES

- This paper consists of one compulsory examination item. Answers to this item are to be written in the space 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 are not allowed to use reference books.
- 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.

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Item 1

A group of senior two learners put a piece of chalk in a plastic beaker and added a colourless liquid they found in the laboratory to it. They were surprised to see a reaction taking place.

They pounded the chalk and added the colourless liquid to the powder. This time the reaction took a shorter time. This confused them the more and sought for an explanation from the teacher. The teacher tried to explain the effect of particle size on the reaction rate but it remained un clear to the learners.

For the learners to understand it better, he demonstrated using the reaction of Magnesium and hydrochloric acid.

Magnesium reacts with hydrochloric acid according to the following equation.

$$Mg(s) + 2HCl_{(aq)} \longrightarrow MgCl_{2(aq)} + H_{2(g)}$$

You are provided with the following:-

BA1 which is hydrochloric acid

Magnesium ribbon or granules

Magnesium powder

- 2 plastic beakers
- 1 thermometer
- 1 stop clock

A weighing balance.

Task

As a senior four learner,

(a)	Design an experiment the teacher might have carried out to help the leaners understand the effect of particle size.	
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(b) Carry out the	experiment and reco	rd your findings	
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((c) What can the senior two learners deduce from your fi	ndings
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END

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