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545/3 CHEMISTRY Paper 2 July/August 2024 2 Hours



WAKISSHA JOINT MOCK EXAMINATIONS

Uganda Certificate of Education

CHEMISTRY

Paper 3

Practical

2 Hours

INSTRUCTIONS TO CANDIDATES;

This paper consists of one compulsory examination 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 are not 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.

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Turn Over

Item 1

Cate one of the local bakers was requested to make a very nice graduation cake for one of the daughters of the village local council I chairperson.

Some of the materials Cate used include lemons which contain acetic acid and baking powder that contains sodium hydrogen carbonate.

The acid reacts with sodium hydrogen carbonate to produce carbon dioxide which rises the dough causing the cake to become bulky and soft, according the equation.

$$H^+(\alpha q) + HCO^-_3(\alpha q) \to H_2O(L) + CO_2(g).$$

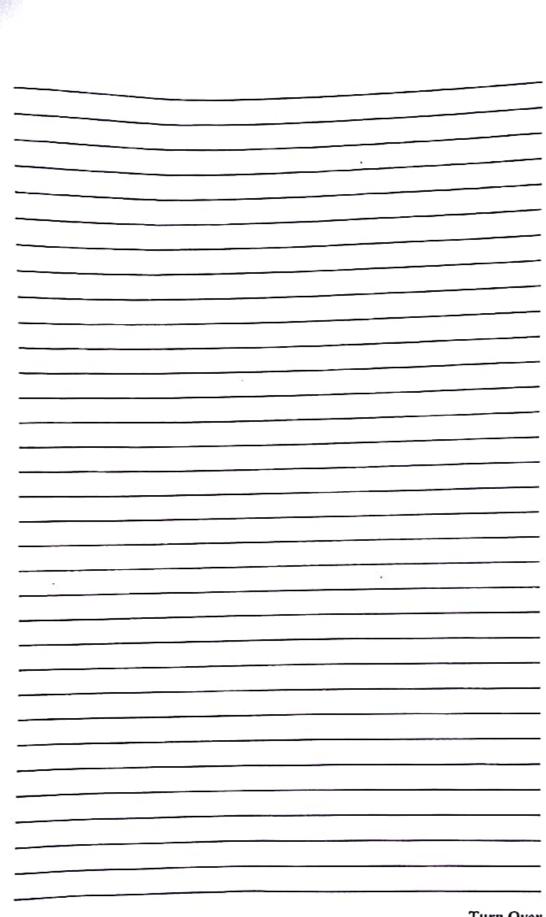
Cate however wonders how the temperature favour the reaction above to produce the cake and she has no idea.

You are provided with the following:

- BA1 which is a solution of acetic acid.
- Solid P which is sodium hydrogen carbonate.
- Some laboratory apparatus.

Task:

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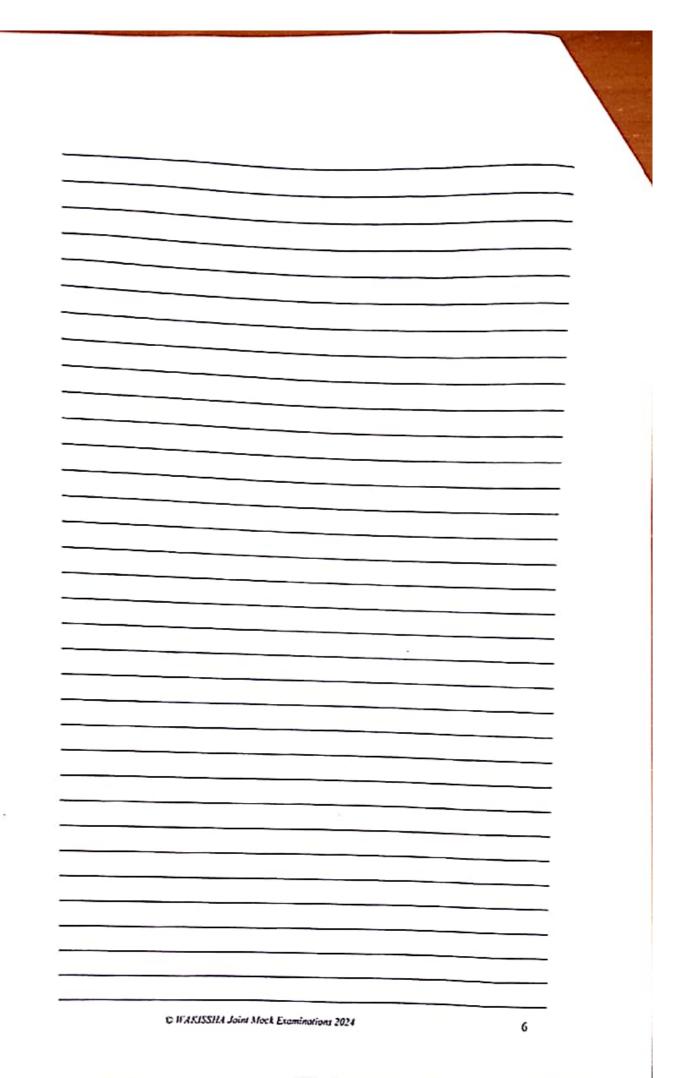
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| (c) | Analyse an | d interpret | your results |
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| (d) | From your data interpretation and analysis in (b), make a conclusion that can guide Cate to enable her produce the cake. |
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