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CHEMISTRY	
Paper 2	
July,2024	
2 Hours	

# **INTERNAL MOCK EXAMINATIONS 2024 Uganda Certificate of Education**

#### **CHEMISTRY**

Paper 2

**Practical** 

2 Hours

## **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. A Graph paper will be provided

Mathematical tables 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.

#### Item 1

At a fish farming site, water is pumped and discharged into a fish pond from one of nearby stream which is surrounded by a local manufacturing industry. However this water contains some traces of hydrochloric acid which causes unfavourable conditions for survival of fish.

The LC 1 has raised a concern to the management of the industry to find alternative solution to solve the problem and save the life of fish. As a result the Industrial Chemist has suggested the use of solution **W** to remove the acid in the water without affecting the life of fish.

Solution  $\mathbf{W}$  reacts with acid to form salt and water and the reaction is exothermic. The acidic water becomes warmer as more solution  $\mathbf{W}$  is added. Fish thrives well if heat between 2.47 and 2.52kJ is produced in water during the reaction.

However, the owner of industry have not yet accepted the suggestion of the use of solution **W** since the worry lies on the amount heat that will be produced. However the industry owner have tasked new worker to determine whether suggestion of the industrial chemist can be used.

You are provided with:

Solution W labelled BA1

Sample of the acidic water labelled BA2

## Task:

(a) As a learner of Chemistry:	
<ul> <li>i. Design an experiment you will carry out to determine the help new worker in the investigation</li> </ul>	the

ii. Carryout the experiment and record your data

		i. Analyse your results and Obtain the maximum heat produced during the reaction
•••••	(b)	What can the industry owner deduce from your findings about ution $old W$ use?