Name_____

Signature_____ personal number_____

Total weighted Score		
Initials		

P525/2
CHEMISTRY
PAPER 2
APRIL 2026
3Hrs. 15min

UGANDA ADVANCED CERTIFICATE OF EDUCATION

PRE-REGESTRATION EXAMINATIONS 2026

S6 CHEMISTRY PRACTICAL

PAPER 2 (P525/2)

3Hours and 15minutes

INSTRUCTIONS TO CANDIDATES

This paper consists of two **compulsory items**, **1** and **2**. Both items are compulsory. Responses to these items are to be written in the spaces provided in this booklet. Use **blue** or **black ink**.

All working **must** be clearly shown.

Mathematical tables 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.).

You are advised to carefully read the items, make sure you have all the apparatus that you may need and then **plan** appropriately before starting.

Item one			Item two		
Basis Code	Weighted Score	Scorer's initials	Basis Code	Weighted Score	Scorer's initials
A			A		
H			H		
V			V		
P			P		
R			R		
D			D		
Dr			Dr		
I			I		
C			C		
Total Weighted Score			Total Weighted Score		

Item 1.

Mione' electronics Ltd in Mbale industrial park launched two smartphones the ***U1*** and ***JOY 9***. The company uses barium carbonate as the active ingredient to make sensors in these phones.

The required percentage purity of calcium carbonate for the effective working of the sensor should be above 90%.

The manager has received a sample whose purity is doubted. He has given the sample to your chemistry teacher to guide him before giving it to the production unit. The teacher has assigned you the task.

"This is determined through a back titration by dissolving a known mass of the carbonate in $100cm^3$ of a standard solution of an acid until effervescence stops. The solution is further diluted to $250cm^3$ using distilled water and then labeled. $25.0cm^3$ of a standard solution of a base is titrated with the resultant solution from the burette". He added.

Where necessary; (*Ca* =40,*O* =16, *C* = 12)

You are provided with the following

- **FA1** which is 0.4M hydrochloric acid
- **FA2** which is 0.05M sodium hydroxide solution
- Solid **X** – is calcium carbonate of which exactly **2.8g** are to be weighed/used for this experiment.
- Some apparatus

Task; As a chemistry learner,

(a) Plan and design an experiment to guide the manager. (In your design include; aim, hypothesis, variables, safety precautions and procedure).

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For Scorer's Use Only

Basis Code	
Score	

(b) Carry out the experiment. (Include at least 3 data sets)

For Scorer's Use Only

Basis Code	
Score	

(c) Analyse and interpret your data and hence a recommendation.

For Scorer's Use Only

Basis Code	
Score	

Item 2

A prominent electronics store on Kampala Road regularly showcases its products to allow customers to examine the items prior to purchasing. One of his daily routines, John a new company recruit, routinely cleans sensitive electronics such as screens, keyboards, and motherboards using a cleaning liquid named **Liquimax**.

Research revealed that an **aliphatic methyl secondary alcohol** is the main component of this liquid.

Two days back, the store made a loss on two flat screens due to sudden electric circuit that occurred. The manager suspects the liquid used by John as the root cause. John claimed he used the right liquid and has brought the sample to the manager.

Knowing that you are chemistry learner at advanced level in a nearby school, the manager has requested you to perform a qualitative analysis on the sample to determine its nature. Your report will help him decide whether or not to dismiss John from the company.

You are provided with;

- **Q** is a Sample the liquid used by John on that day.
- Some laboratory test reagents
- Some apparatus

Task; As an advanced level chemistry learner;

a) Plan and design an experiment to guide the team. (In your design include; aim, hypothesis, variables and any **two** safety precautions)

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For Scorer's Use Only

Basis Code	
Score	

b) Carry out the experiment and record your observations and deductions.

Test procedure	**Observations**	**Deductions**

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b) Should John be dismissed from the company? Yes or no. support your response.

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For Scorer's Use Only

Basis Code	
Score	

END.

Confidential information.

In addition to the fittings and substances ordinarily contained in a chemistry laboratory, each candidate will require;

1 Retort stand with a clamp

2 Conical flasks.

Filter funnel

1 Measuring cylinder (100 cm^3 capacity)

1 Volumetric flask (250cm^3 capacity)

5 plastic beakers

1 Pipette (25cm^3 capacity)

1 Burette

8 Test tubes

1 boiling tube

Spatula

Candidates should have access to;

-Heat source

-Common reagents for identifying organic compounds.

-Weighing balance reading to at least 1 decimal point

-Methyl orange indicator

-Phenolphthalein indicator

-Litmus papers (red and blue)

The school should stock the following

-Distilled water

-Masking tape for labeling

Preparations

- **FA1** which is **0.4M** hydrochloric acid
- **FA2** which is **0.05M** sodium hydroxide solution
- Solid **X** is calcium carbonate powder.
- 120cm^3 of **FA1** per each learner
- 100cm^3 of **FA2** per each learner
- 3.0g of Solid **X**
- Sample **Q** is **propan-2-ol**.