



DESHA EXAMINATION BOARD
2024 MALAWI SCHOOL CERTIFICATE OF EDUCATION
MOCK EXAMINATION

CHEMISTRY

Thursday 14th March, 2024

Subject Number: M038/II
Time Allowed: 2 hour sessions

PAPER II

(40 marks)
Practical

Instructions

- **This paper contains 6 pages. Please check.**
- Write your Examination Number at the top of each page of this question paper.
- Answer all the 4 questions in the spaces provided.
- Use of electronic calculators is allowed.
- The maximum number of marks for each answer is indicated against each question.
- In the table provided on this page, **tick** against the number of questions you have answered.
- You should hand in your question paper to the invigilator when you are called to stop writing

Question number	Tick if answered	Do not write in these columns	
1			
2			
3			
4			

[illegible]

2. Construct a flow diagram that could be used to identify **ethanol, propanone, acetic acid, ethanal and hexane**, using tests that make use of distilled water, sodium hydroxide solution, phenolphthalein indicator, Brady's solution and Tollen's reagent.

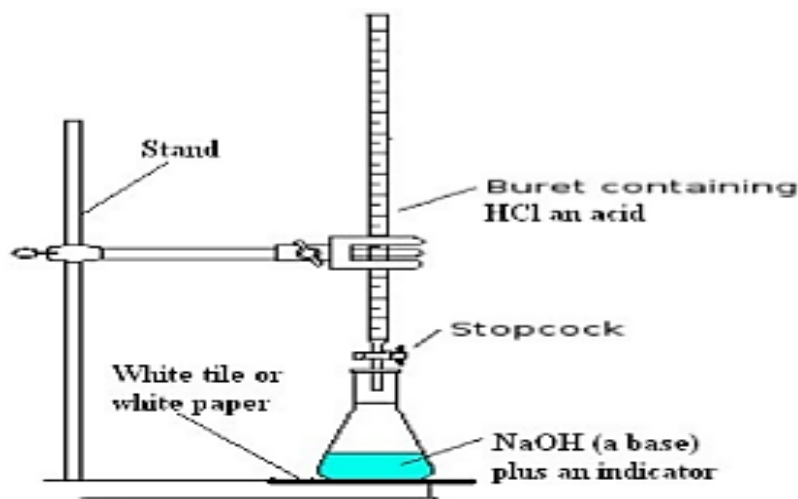
(10 marks)

h. Give a reason for your answer.

_____ (1 mark)

4. You are provided with a burette, a funnel, a measuring cylinder, beaker or conical flask, a clamp stand, a dropper, Hydrochloric acid (**HCl**) of unknown concentration, **0.1M** sodium hydroxide (**0.1M NaOH**) and phenolphthalein indicator.

a. Set up the apparatus as shown in **Figure 1**



- b. Measure **10ml** of the **0.1 M** sodium hydroxide and pour it into a beaker
- c. Add **2** drops of phenolphthalein indicator into the beaker
- d. Fill the burette with hydrochloric acid (**HCl**) to the zero mark
- e. Slowly add the hydrochloric acid from the burette into the beaker and shake until colour change is observed
- f. Record the result in the appropriate spaces in the table of results.

Table of Results

Initial volume of acid (ml)	Final volume of acid (ml)	Volume of acid used (ml)

(3 marks)

- g. Write a balanced chemical equation for the reaction

(2 marks)

- h. Calculate the concentration of hydrochloric acid used in the experiment



(3 marks)

- i. Give any **two** way of reducing errors in the experiment

(2 marks)

END OF QUESTION PAPER

NB: This paper contains 6 printed pages