

MZALANGWE CLUSTER

2019 MALAWI SCHOOL CERTIFICATE OF EDUCATION MOCK EXAMINATION

CHEMISTRY

Thursday 28, March 2019

Subject Number: M036/II

Time allowed: 2 Hours

(8:00 a.m onwards)

PAPER II

(40 Marks)

Instructions:

1. This paper contains **5 pages**. Please check.
2. Answer **all the 4** questions in this paper.
3. The maximum number of marks for each answer is indicated against each question.
4. Write your answers on the spaces provided on the question paper.
5. Tick the question you have answered.

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



1. (a) The table below shows some of the tests which are used to identify different gases

Name of the substance(gas)	Test	Results if positive
A	Mix with air and ignite	Squeaky pop
B	Insert glowing splint	Splint relights
C	Bubble through limewater	Lime water turns milky
D	Damp litmus paper	Litmus paper turns white

Identify the following gases

A _____

B _____

C _____

D _____

(4 mark)

- (b) Explain the test which can be done to identify the iron ions.

(3 marks)

- (c) Explain how water can be identified using anhydrous copper sulphate powder.

(3 marks)

2. A laboratory technician has one litre of 2M hydrochloric acid solution. Describe how she could prepare a 250 cm³ volume of 0.2M hydrochloric acid from the 2M hydrochloric acid solution

This image shows a full page of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page, providing a template for handwriting practice or general writing. There are no margins, text, or other markings on the page.

(10 marks)

SECTION B (20 marks)

Answer all questions in this section

3. You are provided with three test tubes, distilled water, a test tube rack, copper sulphate solution, aluminium nitrate solution, iron sulphate solution, copper wire, aluminium wire and iron nails.
- Pour 2cm^3 of copper sulphate solution into each of the three test tubes
 - Place copper foil, aluminium foil and iron nails in each test tube
 - Observe and record the results by indicating “**reaction**” or “**No reaction**” in appropriate spaces in the table 2 below
 - Rinse the test tubes using distilled water
 - Repeat steps a to d using aluminium nitrate and iron sulphate solutions

Table 2

Metal	Copper sulphate	Aluminium nitrate	Iron sulphate
Copper			
Aluminium			
iron			

(9 marks)

- f. Arrange the metals in order of decreasing reactivity

(1 mark)

4. You are provided with compounds A, B and C which are ethanal, hexane and ethanone not in that order, three test tubes, distilled water, tollens reagent. Perform the following tests as shown in the table and complete the table

Compound	Solubility test	Results	Tollens reagent	Results
A	To 2ml of water in each test tube add 3 drops of each compound		To 1ml of tollens reagent add 1 drop of those that are soluble in water after rinsing the test tubes	
B				
C				

(5 marks)

Identify the compounds A, B and C

(3 marks)

State two physical properties of compound A

(2 marks)

END OF QUESTION PAPER