LOYOLA JESUITS SECONDARY SCHOOL

2020 MALAWI SCHOOL CERTIFICATE OF EDUCATION MOCK EXAMINATION

CHEMISTRY

Time allowed: 2 hour session

PAPER II

(40 Marks)

PRACTICAL

Instructions:

1. **This paper contains 6 printed pages Please check.**
2. This paper contains 2 sections, A and B. Section A has 2 descriptive questions and Section B has questions on experiments.
3. Answer all the FOUR questions in the spaces provided on the question paper. The maximum number of marks is indicated against each question. A pencil should be used for all drawings.
4. Write your examination number at the top of this page and every sheet used.
5. In the table provided on this page, tick Against each question you have answered.
6. You should hand in your examination paper to the invigilator when the time is called to stop.

Question Number	Tick if answered	Do not write in these columns	

SECTION A

1. With the aid of a well labeled diagram, describe an experiment that can be done to show that ionic compounds only conduct electricity in molten or aqueous state.

(10 marks)

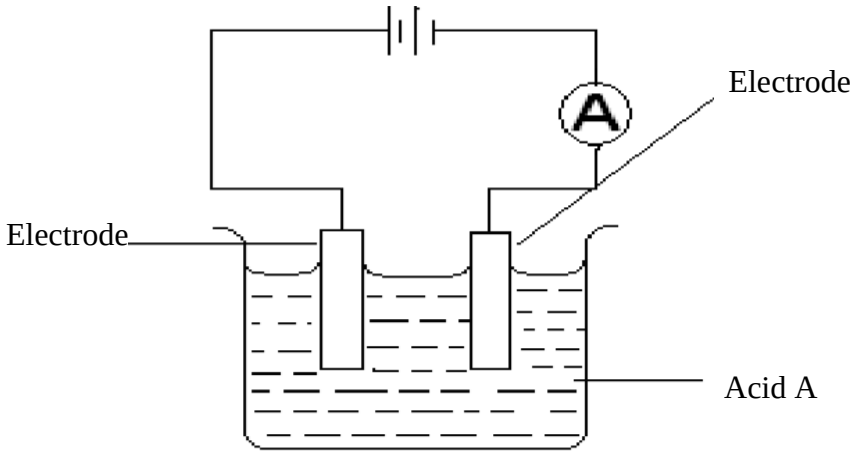
2. Describe how you can prepare 250 cm^3 of 1M Copper sulphate ($CuSO_4$) solution by dissolution method**. (Cu=64, S=32 and O=16).**

(10 marks)

SECTION B

3. You are provided with two acids marked **A** and **B** in a beaker, one of which is said to be strong while the other one is weak, connecting wires, an ammeter, two cells, measuring cylinder and electrodes.

a. Set up the apparatus as below;



b. Measure 25ml of acid A into a beaker and dip the electrodes in the beaker as shown in the diagram above. Record the ammeter reading.

c. Do the same with acid B and record the results in a table as below;

SOLUTION CONNECTED	**AMMETER READING (A)**
Acid A	
Acid B	

(2 marks)

d. From the results, determine which one is a strong acid.

_____

(1 mark)

e. Name a device that could be used instead of an ammeter in the setup above.

_____

(1 mark)

f. Another way to determine strength of an acid is using PH. Explain briefly how this is done.

_____

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_____

(6marks)

4. You are provided with 3 conical flasks marked **P, Q** and **R** containing sodium thiosulphate solutions of different concentrations, white plain paper marked **X** and stop watch.

a. Put a conical flask labelled **P** on the cross **(X),** Add 5 cm^3 of HCl to conical flask **P**, immediately start the stop watch.

b. Shake the mixture in the conical flask over the cross (**X**) on the paper and record the time it takes for the cross to become invisible.

c. Repeat steps **a** and **b** with the remaining solutions in test tube **Q** and **R**. record the results in a table as below:

CONICAL FLASK	**TIME TAKEN FOR THE CROSS TO BE INVISIBLE (SECONDS)**
P	
Q	
R	

(3 marks)

d. Which of the **three** solutions is highly concentrated?

_____

(1 mark)

e. Give a reason for your answer in **3 (d**) above

_____

(1 mark)

f. What is the aim of the experiment?

_____

(1 mark)

g. What **three** factors have been kept constant in the experiment

_____

_____

_____

(3 marks)

h. What causes the cross to become invisible?

_____

(1 marks)

END OF THE QUESTION PAPER