

Name: \_\_\_\_\_

# DIOCESE OF MZUZU

**2019 MALAWI SCHOOL CERTIFICATE OF EDUCATION MOCK EXAMINATION**

## **AGRICULTURE**

**Tuesday, 26 March**

*Subject Number: M012/11*

*Time Allowed: 1hr 30min Sessions  
(7.30am onwards)*

### **PAPER II** **(40 Marks)** **(Practical)**

#### **Instructions:**

1. This paper contains **7 pages**. Please check.
2. Answer all **four** questions in spaces provided.
3. Write your ***name/number*** and ***class*** on top of every page.
4. In the table provided on this page, tick against the question number you have answered.
5. Hand in your paper to the invigilator at the end.

<b>Question Number</b>	<b>Tick if Answered</b>	<b>Do not write in these margins</b>	
1			
2			
3			
4			

**SECTION A (20 Marks)**

1. A teacher gave students the following items:

- Soil sample
- Distilled water
- Container with lid
- Mortar and Pestle
- Calibrated salinity meter

Describe an experiment that would be carried out to determine the Salinity of soil.

**(10 marks)**

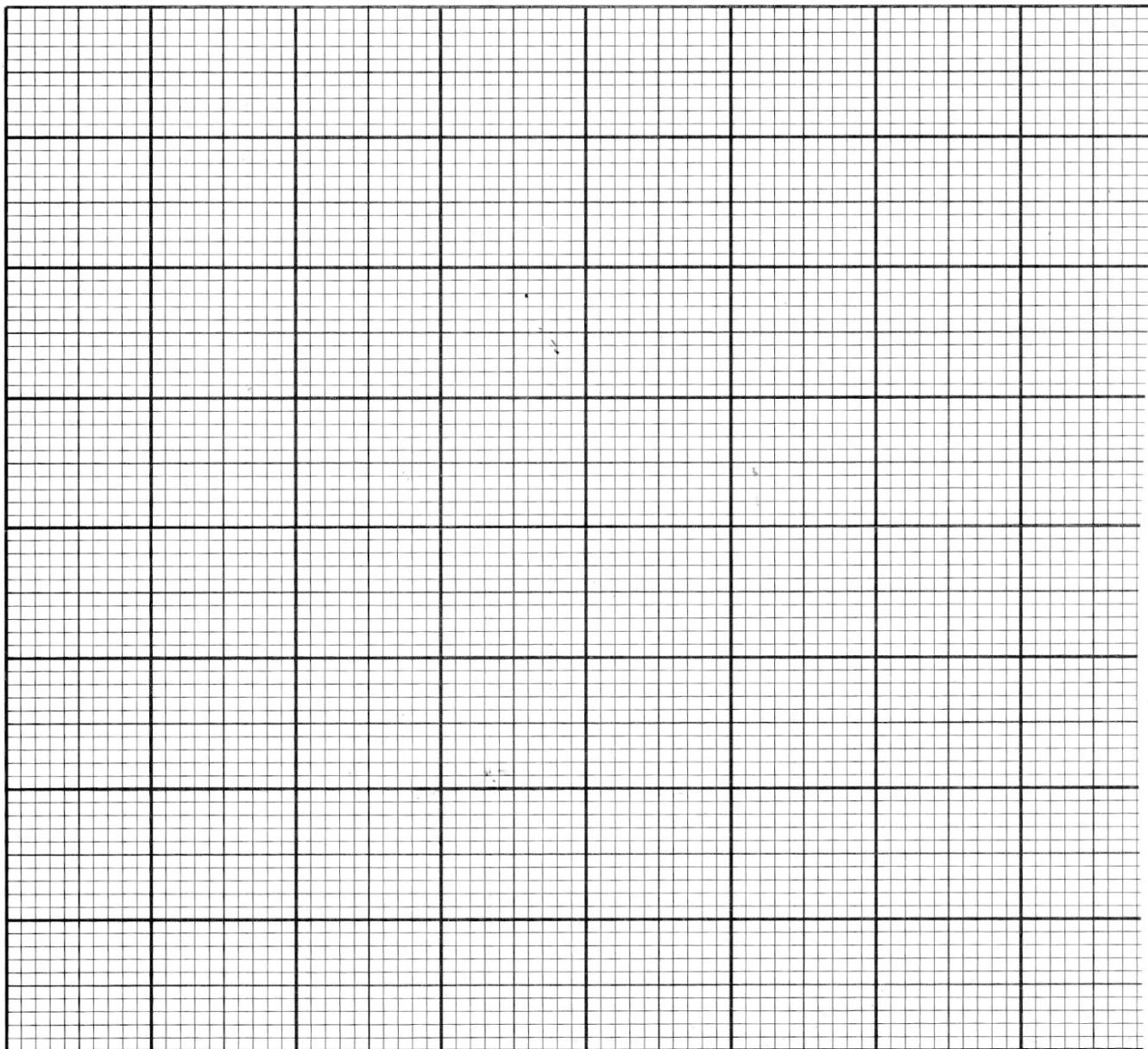
2. **Table below** shows yield of Rice at different fertilizer levels. Use it to answer the questions that follow.

Fertilizer (kg/ha)	Total Returns (Kg/ha)	Marginal Returns (kg/ha)
0	600	
50	2 400	1 800
100	5 200	2 800
150	8 400	3 200
200	11 100	X
250	12 200	1 100
300	12 700	Y
350	11 900	Z
400	10 000	-1 900

- a. Calculate the marginal yield at the fertilizer levels marked X, Y and Z.

**(3 marks)**

- b. Taking a scale of 2cm to represent 50 units in the *x-axis* and 2cm to represent 1000 units in the *y-axis*, draw the graph of **Marginal yield** in the *y-axis* and **Fertilizer levels** in the *x-axis*.



**(5 marks)**

- c. From the graph, identify the fertilizer level that is the best for the Farmer.

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**(1 mark)**

- d. State the economic principle that is being demonstrated in the graph drawn in question 2 (b).
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**(1 mark)**

## SECTION B (20 Marks)

3. You are provided with specimens labeled **X** and **Y**.

a. Name the method by which specimen labeled **Y** is propagated.

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(1 mark)

b. (i) Which of the **two** specimens can be used in Crop improvement?

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(1 mark)

(ii) Explain the reason for your answer to **b (i)**.

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(2 marks)

c. (i) State any **one** importance of processing specimen **Y** before storage.

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(1 mark)

(i) State any **one** Agro-based industry in Malawi which uses specimen labeled **X** as a raw material and **one** product that this company produces from specimen labeled **X**.

**Agro-based Industry**

**Product**

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(2 marks)

- d. State any **three** roles of soil drainage in the production of specimen labeled **Y**.

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**(3 marks)**

4. You are provided with specimens labeled **A, B, C** and **D**.

- a. Classify the specimens as energy feeds and protein feeds.

<b>Energy Feed</b>	<b>Protein Feed</b>

**(4 marks)**

- b. (i) Which of the specimens would be suitable for poultry production?

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**(1 mark)**

- (ii) Give a reason for your answer to b (ii).

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**(1 mark)**

- c. Describe how a farmer can make hay from specimen **C**.

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**(3 marks)**

- d. Give any **one** use of specimen labeled **B** in mushroom production.

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**(1 mark)**

## **END OF THE QUESTION PAPER**

**NB:** This paper contains 7 pages