CHIRADZULU & MALIMBA CLUSTERS 2022 MOCK EXAMINATION

MALAWI SCHOOL CERTIFICATE OF EDUCATION EXAMINATION

AGRICULTURE

Subject Number: M012/ II

Tuesday, July 19, 2022

Time Allowed: 1¹/₂ hour sessions

PAPER II

(40 marks)

Practical

Instructions

- 1. This paper contains 7 printed pages. Please check.
- 2. This paper contains two sections, A and **B**. Section **A** has **two** descriptive questions and section **B** has two questions on experiment.
- 3. Answer all questions in the spaces provided. Marks are indicated against each part of the question.
- 4. Write your name and the name of your school on all pages.

- 5. In the table provided on this page, tick against the question number you have answered.
- 6. At the end of the examination, hand in your paper to the invigilator.

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

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SECTION A (20 MARKS)

a. Figure 1 shows a setup of an experiment on soil composition. Cylinder X contained 25 cm³ water and cylinder Y contained 25 cm³ soil. Later contents from the two cylinders were mixed and the results are shown in cylinder Z. Use this information to answer questions that follow;



Figure 1

i. Name the soil component that was being investigated in this experiment?

(1 mark)

ii. Give any **two** importance of the soil component being investigated in this experiment?

(2 marks)

iii. Calculate the percentage of the soil component under investigation.



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Figure 2 is a diagram that illustrates one of the field practices carried out on some b. crops. Study the diagram carefully and answer the questions that follow;



Figure 2

i. Identify the practice illustrated.

(1 mark)

ii. List down any two problems faced by a farmer who does not carry out the practice.

(2 marks)

2. The table below illustrates the relationship between the size of land (ha), input (NPK) fertiliser and total Maize production (50 Kg bags)

Land (ha)	NPK Fertilizer Input (Kg)	Total Maize production in 50 Kg Bags
1	0	5
1	30	12
1	60	28
1	90	47
1	120	59
1	150	65
1	180	68
1	210	70
1	240	70
1	270	68

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a. Using an appropriate scale with inputs on the *x*-axis draw a graph to show the relationship between output of maize in 50 Kg bags and the input of NPK fertiliser in Kg.



⁽⁵ marks) Continued/...

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b.	Name and state the la	aw illustrated by the production curve.	
			(2 mark
c.	Calculate the margina	al production (in Kilograms) for the 12	20 Kg input of NPK fertili
	(
			(3 mark
	SE	CTION B (20 MARKS	
a. Y	ou are provided with sp	pecimen labeled X	
I	Procedure: Shell the s	pecimen	
i.	Name the marketing f	unction perfomed	

ii. Explain any two ways in which the function named in (i) reduces marketing costs.

_ (4 marks)

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- **b.** You are provided with specimen labeled **Y**
 - i. Why is the demand for the specimen Y inelastic in Malawi?

(2 marks)

(3 marks)

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ii. Sketch a graph to illustrate the inelastic demand for the specimen Y.

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4. You are provided with the following:

- \blacktriangleright Two equal amounts of soil samples in separate containers labelled **A** and **B**
- > 100 mls of water in a container

Procedure

- Pour half of the water into each of the containers.
- a. Observe and record the rate at which water sinks into each container
 - i. Soil sample A

(1 mark)

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	ii.	Soil sample B			
					(1 mark)
b.	i. Fr	om your observatio	ons, which soil s	ample would be goo	od for growing rice(1 mark)
	ii. E:	xplain a reason for	the answer in b.	(i).	
					(2 marks
c.	Expla produ	ain any one way in action.	n which the res	sults of this experi	ment are important in crop
					(2 marks)
d.	Give	any one way how a	farmer can imp	orove Soil sample A	(1 mark)
e.	Give	any two factors tha	it have been kep	t constant in the exp	periment.
					(2 marks)

END OF QUESTION PAPER

This paper contains 7 printed pages.