

STUDENT NAME \_\_\_\_\_ SCHOOL \_\_\_\_\_



# MWANZA DISTRICT EXAMINATIONS BOARD

2024 MALAWI SCHOOL CERTIFICATE OF EDUCATION MOCK EXAMINATIONS

## AGRICULTURE

Monday, 18 March

Subject Number: M012/I

Time Allowed: 2 hours

8:00 - 10:00 am

### PAPER I

Theory  
(100 marks)

#### Instructions

1. This paper contains 11 printed pages. Please check.
2. The paper has two sections. **A** and **B**. Section **A** has **ten** questions and section **B**, **three** questions.
3. Answer **all** questions in the spaces provided.
4. Write your Examination Number 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			
5			
6			
7			
8			
9			
10			
11			
12			
13			
TOTAL			

## Section A (70 marks)

Answer all the ten questions in this section

1. a. State the 'principle of opportunity cost'.

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(1 mark)

b. Explain **one** way in which the 'principle of opportunity cost' would help farmers in decision making.

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(2 marks)

2. (i) State the meaning of the term seed rate.

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(1 mark)

(ii) Calculate seed rate for a legume pasture using the following information.

- Germination percentage = 40 %.
- Purity of the seed = 60%.
- Expected plant population= 1200000 plants per hectare.
- Seed size = 400000 seeds per Kg

(2 marks)

3. a. The following are possible enterprises for a farmer who wants to open a new farm:  
Vegetable, bean, maize, and poultry.

(i) Identify **two** possible enterprise combinations that would be recommended to the farmer.

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(2 marks)

(ii) Name the type of the enterprise combinations named in 3a (i).

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(1 mark)

(iii) Give **two** advantages of the enterprise combinations named in '3a (ii)'.

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(2 marks)

b. A farmer planted cassava in a maize garden when maize is about to mature.

(i) Identify the type of cropping system.

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(1 mark)

(ii) Explain any **one** benefit that a farmer would get by practicing the type of cropping system named in 3b (i).

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(2 marks)

4. (i) State any **two** advantages of using solar power.

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(2 marks)

(ii) State any **two** ways of improving output from solar power.

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(2 marks)

5. a. Name **one** form of soil degradation that would occur in a maize garden if a farmer cultivates along the slope.

(1 mark)

- b. Figure 1 is a diagram of one of the practice of controlling soil degradation.

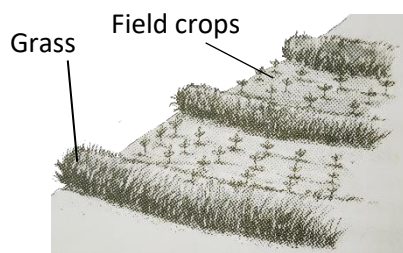


Figure 1

- (i) Identify the practice.

(1 mark)

- (ii) Explain any **one** way in which the practice in 5b (i) would control soil degradation.

(2 marks)

- c. (i) Write **three** steps involved when determining salinity using salinity meter.

(3 marks)

- (ii) Explain any **one** effect of salinity on plant growth.

(2 marks)

- d. Explain any **one** effect of crumb structure on crop production.

(2 marks)

6. A farmer has one hectare land and plans to grow either maize or groundnuts.

**Additional Information****1. Maize**

Yield (Kg/ha) 4000

Price (MK/Kg) 50

Costs: fertilizer K20000, permanent labour K20000, casual labour K5000, Chemicals K5000, Depreciation K3000.

**2. Groundnuts**

Yield (Kg/ha) 1000

Price (MK/Kg) 500

Costs: Permanent labour K100000, casual labour K150000, Chemicals K50000, Depreciation K5000.

(i) Prepare a complete budget.

(5 marks)

(i) Which enterprise would be recommended to the farmer?

(1 mark)

(ii) Give **one** reason for the answer to 6 (i).

(1 mark)

7. a. Draw a mushroom and label any **two** parts.



(3 marks)

b. Give any **two** ways in which mushrooms are important.

(2 marks)

c. Write **five** steps involved when seeding substrate for mushrooms.

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(5 marks)

d. State **one** reason why the following seed treatment procedures are important in pasture establishment.

(i) Inoculation

(2 marks)

(ii) Scarification

(2 marks)

8. a. A cow was serviced on 1st March, 2023 but did not conceive, when will it be ready for mating again?

Show your working.

(2 marks)

b. State any **two** characteristics of a dairy breed of cattle.

(2 marks)

c. (i) Mention any **two** signs of parturition.

(2 marks)

(ii) State any **two** ways of controlling complications during parturition.

(2 marks)

9. a. List any **two** bacterial diseases of goats.

(2 marks)

b. Explain any two characteristics of a good house for sheep.

(4 marks)

10. (ii) Explain any **two** causes of gender bias in agricultural technology.

(4 marks)

(iii) Explain any **one** effect of gender bias on agricultural technology.

(2 marks)



## SECTION B (30 Marks)

Answer all **three** questions in this section.

- 11. Draw a well labelled diagram of a reproductive system of a hen and state **one** function of any **five** parts.**

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(10 marks)

**12.** Describe procedure for making spawn for mushroom production using the following materials: Fresh mushroom, petri dishes, bottles, cotton wool, incubator, spirit, culture medium, sterilized sorghum.

[illegible]

13. Explain any **five** ways in which integrated forest, farm and fish systems would deal with climate change.

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(10 Marks)

**END OF QUESTION PAPER**

**NB: This paper contains 11 printed pages**