Name:_____

MZUZU DIOCESE EXAMINATIONS

2017 MALAWI SCHOOL CERTIFICATE OF EDUCATION MOCK EXAMINATION

AGRICULTURE

***Monday*, 27 March**

Subject Number: M012/1
Time Allowed: 2 hours
(7.30-09.30am)

PAPER 1
(100 Marks)
(Theory)

Instructions:

1. This paper contains **12 pages**. Please check.
2. Answer all **ten** questions in **section A** and all **four** questions in **section B**.
3. The maximum number of marks for each answer is indicated against each question.
4. Answer all questions in the spaces provided.
5. Write your **name** and **class** on top of every page.
6. In the table provided on this page, tick against the question number you have answered.
7. Hand in your paper to the invigilator at the end.

Question Number	Tick if Answered	Do not write in these margins	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

Section A (60 marks)

Answer all the **ten** questions in this section

1. a. State any **two** ways of classifying weeds.

_____

_____

(2 marks)

b. (i) Give any **one** reason why it is important to classify weeds accurately.

_____

_____

(1 mark)

(ii) Describe any **one** cultural practice for controlling weeds.

_____

_____

(2 marks)

2. a. Mention any **two** beef breeds of cattle

_____

_____

(2 marks)

b. State any **two** features that can be used to identify a beef breed of cattle

_____

_____

_____

(2 marks)

Continued/…

c. State any **one** way in which each of the following are avoided in cross-pollination of crops.

i. Accidental self-pollination

_____

(1 mark)

ii. Pollination by other foreign pollen.

_____

(1 mark)

3. a. State any **one** importance of each of the following seed treatment procedures for pasture:

i. Scarification

_____

(1 mark)

ii. Inoculation

_____

(1 mark)

iii. Pelleting

_____

(1 mark)

b. Explain any **one** way in which each of the following affects seed rate of pasture during pasture establishment:

i. Method of sowing

_____

_____

_____

(2 marks)

Continued/…

ii. Seed size

_____

_____

(2 marks)

4. a. Explain any **one** importance of each of the following in agricultural experimentation

i. report writing

_____

_____

(2 marks)

ii. calculating averages

_____

_____

(2 marks)

b. State any **two** examples of environmental interference in agricultural experiments.

_____

_____

_____

(2 marks)

c. Describe any **one** way of reducing environmental interference in agricultural experiments.

_____

_____

_____

(2 marks)

Continued/…

5. a. State any **two** roles of estates in ensuring food security.

_____

_____

(2 marks)

b. Explain any **two** ways in which farmers can achieve food self-sufficiency at household level.

_____

_____

_____

_____

_____

(4 marks)

c. State any **two** factors that help to expand international agricultural trade in Malawi.

_____

_____

_____

(2 marks)

6. Form 4 students at Chule CDSS poured 260ml of soil in a measuring cylinder. The students also poured 140ml of water in the measuring cylinder. After 20 minutes they noted that the volume of soil and water was only 345ml.

   i. What was the aim of the experiment?

   _____

   _____

(1 mark)

Continued/…

ii. Calculate the percentage of air contained in the soil sample above.

(2 marks)

7. **Table 1** shows farm gate and retail prices for some agricultural produce at Kalambwe Market. Use it to answer the questions that follow.

Produce	**Farm gate price (MK/kg)**	**Retail Price (MK/kg)**
Irish potatoes	350.00	700.00
Cabbages	80.50	180.75
Onions	600.00	750.00

i. Calculate the marketing margins for each of the following crops:

(1) Irish potatoes

(2 marks)

(2) Onions.

(2 marks)

Continued/..

ii. (1) Which produce in **(i)** has the smaller marketing margin?

_____

(1 mark)

(2) State any **one** possible cause of the difference in marketing margins in **(i)** above.

_____

(1 mark)

8. A farmer bought a sprayer worthy K25,000.00 to be used for controlling pests in maize

a. State **one** safety measure that should be observed when using a sprayer.

_____

(1 mark)

b. Assuming the sprayer has a life span of 10 years and a salvage value of K2, 000. 00, calculate the book value of the sprayer by the end of three years, using the straight line method.

(4 marks)

c. State any **two** causes of depreciation of the sprayer calculated in **b.** above.

_____

_____

(2 marks)

Continued/…

9. A farmer noticed the following symptoms on his crops in a garden: scorched leaf margins, weak stalks resulting into lodging and small fruits, seeds and tubers.

   i. Identify the nutrient lacking in the crops.

   _____

   (1 mark)

   ii. Name any **two** inorganic fertilizers that can be supplied by the farmer to correct the deficiency symptoms.

   _____

   _____

   (2 marks)

   iii. State any **two** ways how the nutrient is depleted from the soil.

   _____

   _____

   (2 marks)

10. a. State any **three** functions of roots.

_____

_____

_____

_____

(3 marks)

b. Explain any **one** reason why farmers are encouraged to plant deep rooted crops after shallow rooted crops when practising crop rotation?

_____

_____

_____

(2 marks)

Continued/…

Section B (40 marks)

Answer all the **four** questions in an essay form except for question 12.

11. Explain any **five** roles of agro- based industries in supporting the growing population.

(10 marks)

Continued/…

12. With the aid of a well-labeled diagram, describe the reproductive system of a cow.

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(10 marks)

Continued/…

13. Explain any **five** advantages of artificial insemination in livestock production.

(10 marks)

Continued/…

14. Farmers in Traditional authority Kaluluma have been privileged with the following resources:

    - Farm settlement program
    - Subsidy program
    - Agricultural Cooperative
    - Soil testing unit
    - Irrigation unit

    Explain any **five** ways in which farmers can use these facilities to increase agricultural production.

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(10 marks)

END OF QUESTION PAPER

NB: This paper contains 12 pages