



NSANJE DISTRICT MOCK

MALAWI SCHOOL CERTIFICATE OF EDUCATION EXAMINATION

AGRICULTURE

Tuesday, 12 March

Subject Number: M012/II

Time Allowed: 1 h 30 min sessions

9:00 am onwards

PAPER II

(40 marks)

Practical

Instructions

1. This paper contains 9 printed pages. Please check.
2. This paper has two sections: A and B.
3. Answer **all** the **four** questions in the spaces provided. The maximum number of marks for each answer is indicated against each question. A pencil should be used for all drawings.
4. Write your **Name and School Name** at the top of each page of your question paper in the spaces provided.
5. In the table provided on this page, **tick** against the question number you have answered.

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

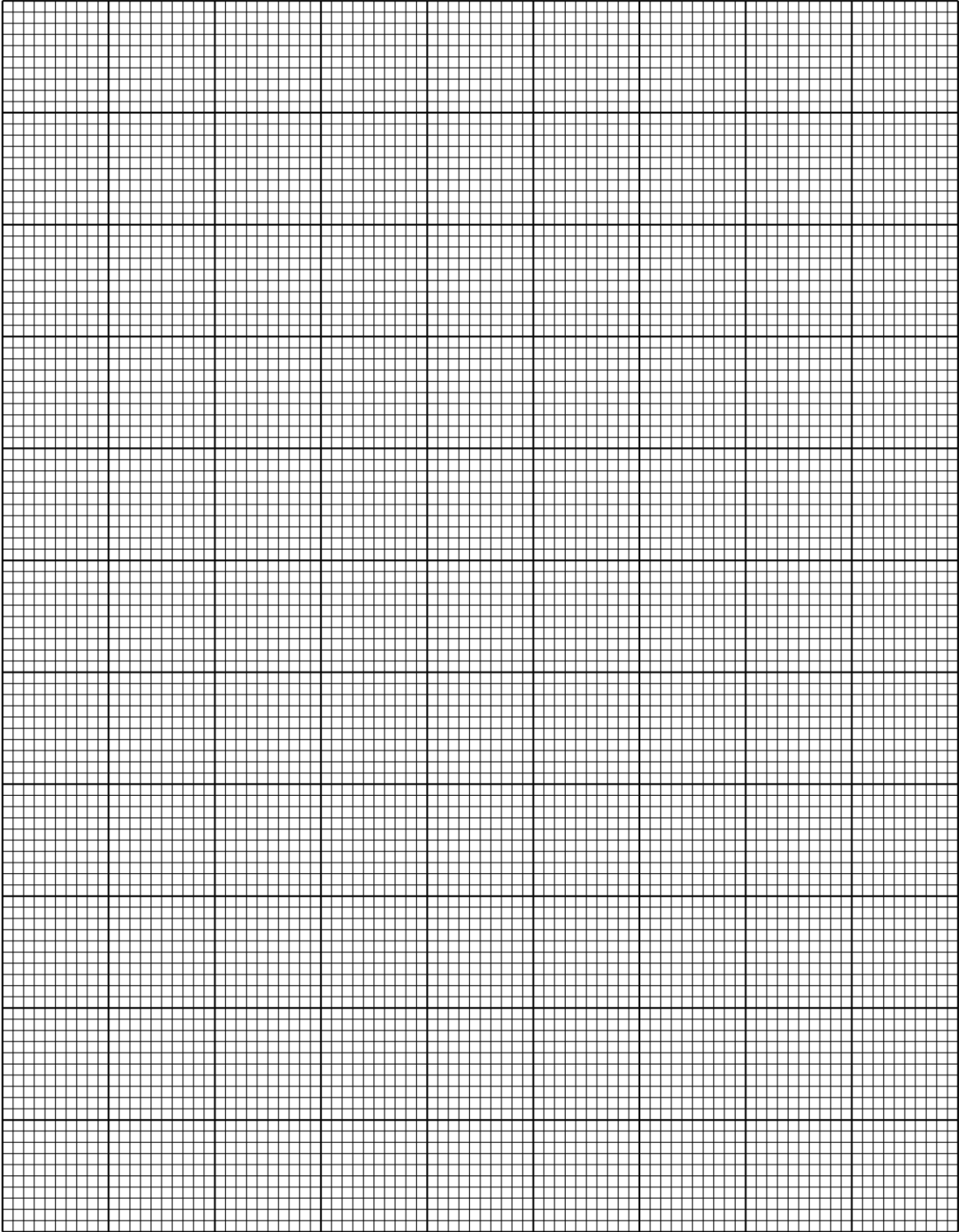
Section A (20 marks)

1. **Table 1** shows a record of milk production in a goat.

Table 1: Record of Milk Production

TIME (MONTHS)	AMOUNT OF MILK PER DAY (dm ³)
January	3
February	3.5
March	4
April	3.5
May	3
June	2.7
July	2.5
August	2.2
September	2
October	1.7
November	1.5
December	1.2

- a. On the graph paper provided on **page 3**, draw a graph using the data in **Table 1**.



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(4 marks)

b. When is milk production at its pick?

(1 mark)

c. Explain one other type of records that a dairy farmer may keep to improve milk production at her farm.

(2 marks)

d. Describe **one** way how the graph you have plotted can assist a smallholder farmer managing her animals.

(2 marks)

e. Imagine a farmer examining the milk from one of her goats and observed clots and blood in it.


(i) What is the name of the disease that the animal from milk was obtained was suffering from?

(1 mark)

(ii) Describe any **one** way of controlling the disease in question e. (i) above.

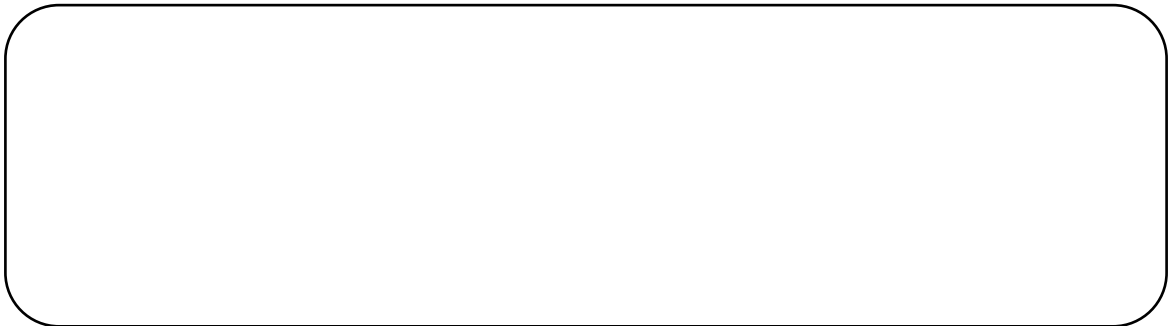
(1 mark)

2. A 17-month-old steer of mass 265 kg was stall fed from 10th January, 2023 to 10th May, 2023 then it was sold after weighing 355kg.
- a. Find the average mass gained per day for the steer.



(3 marks)

- b. Calculate the total revenue if K200.00 was paid per kg gained by this steer.



(2 marks)

- c. Calculate the net income if K50.00 per day was spent on variable costs.



(2 marks)

Continued/...

- d. Name any one factor that would limit stall-feeding by small holder beef farmers in Malawi.

(1 mark)

- e. State any one advantage of stall-feeding.

(1 mark)

- f. If one of the costs that have contributed to the variable costs is cost of feeding, what would be **one** other source of variable costs for the steer?

(1 mark)

Section B (20 marks)

3. You are provided with the following:

- Two equal amounts of soil samples in containers labelled **J** and **K**.
- Two containers with equal amounts of water.

Procedure:

Pour equal amounts of water into each container at the same time.

a. Observe and record the rate at which water sinks in each container.

(i) Soil Sample **J**:

(1 mark)

(ii) Soil Sample **K**:

(1 mark)

b. (i) Which soil would be good for growing rice?

(1 mark)

(ii) Give a reason for the answer in b. (i).

(2 marks)

c. State **one** effect of applying organic manure to each of the soil samples.

Soil Sample **J**:

(1 mark)

Continued/...

Soil Sample **K**:

(1 mark)

- d. (i) In which of the soil samples would the flow of water in the irrigation channels be a problem?

(1 mark)

- (ii) Give a reason for the answer in d. (i).

(2 marks)

4. You are provided with samples **X**, **Y** and **Z**.

- a. Among the three samples, which **one** has the greatest energy value?

(1 mark)

- b. Name the sample that can be an additive feed to chickens that lay eggs.

(1 mark)

- c. Mr Butao plans to graze his twelve cattle on a 1.5 hectare of star grass. However, during the wet season there is usually more grass than the number of animals that can feed on them.

- (i) If you were a farmer, what would you do in this situation?

(2 marks)

Continued/...

- (ii) State any one reason for your answer in (i) above.

(2 marks)

- (iii) Explain any **one** ways in which seasonal production of star grass affects quality and quantity.

(2 marks)

- d. What two factors should be considered before formulating an animal feed?

(2 marks)

END OF QUESTION PAPER

NB: This paper contains 9 printed pages.