



AGRICULTURE

Subject Number: M012/I

Time Allowed: 2 hours

8:00 – 10:00 am

9836

Monday, 1 November

PAPER I (100 marks)

Theory

Instructions

1. This paper contains **12 printed pages**. Please check.
2. This 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. At the end of the examination, hand in your paper to the invigilator.

(1175)

| 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 questions in this section

1. a. State any **two** principles used in formation of agricultural cooperatives.

(2 marks)

- b. Explain any **one** way in which each of the following challenges of running agricultural cooperatives could be solved.

- (i) lack of managerial skills

(2 marks)

- (ii) lack of capital

(2 marks)

- c. A farmer grows maize and beans in the same field in one growing season.

- (i) Name the type of enterprise combination practiced by the farmer.

(1 mark)

- (ii) Explain any **two** ways in which the combination mentioned in (i) could improve maize yield.

(4 marks)

Continued/...

2. a. State any **two** signs of Tuberculosis in sheep.

(2 marks)

- b. Explain any **two** ways in which feeding goats is important.

(4 marks)

- c. State any **two** functions of proteins in the feed for sheep.

(2 marks)

3. **Table 1** shows information extracted on a farm. Use it to answer questions that follow.

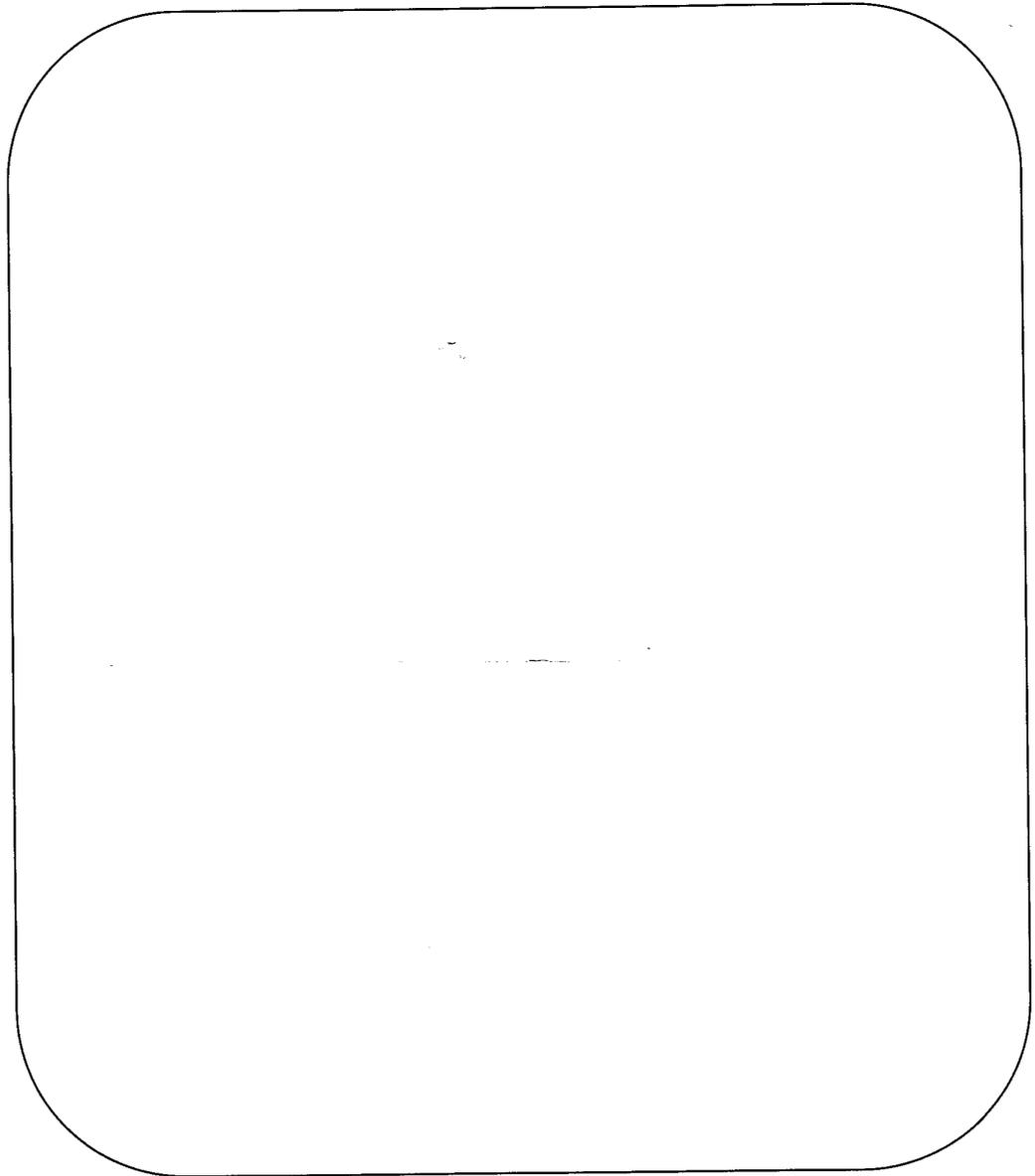
Table 1

| | Amount (K) |
|-----------------------------|-------------------|
| Opening valuation | 150,000 |
| Cost of feed | 80,000 |
| Milk sales | 475,000 |
| Cost of veterinary services | 22,000 |
| Depreciation | 35,000 |
| Closing valuation | 394,000 |

3. (Continued)

9886

- (i) Prepare a profit and loss account.



0079

(6 mark)

- (ii) Explain any **one** way in which inclusion of opening valuation is important in a financial record.

(2 mark)



Continued/.

4. a. **Figure 1** shows **two** methods of land drainage for a farm. Use it to answer questions (i) and (ii).

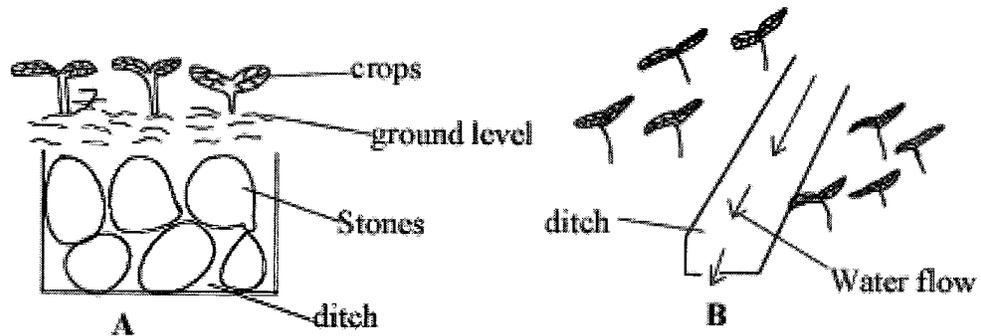


Figure 1

- (i) Name the method of land drainage labeled **A** and **B**.

A _____ (1 mark)

B _____ (1 mark)

- (ii) Give any **one** advantage of land drainage labeled **A**.

 _____ (1mark)

- b. Give any **two** improved farm technologies that increase livestock production.

 _____ (2 marks)

5. a. State any **two** ways in which soil pH could be decreased.

 _____ (2 marks)



5. (Continued)

- b. **Figure 2** is a diagram showing a type of soil structure. Use it to answer questions (i) and (ii).

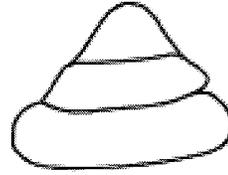


Figure 2

- (i) Name the type of soil structure.

_____ (1 mark)

- (ii) Explain **one** way in which the type of soil structure mentioned in (i) is **not** ideal for crop production.

 _____ (2 marks)

- c. State any **two** ways in which break-even analysis of financial records is important to a farmer.

 _____ (2 marks)

6. Goats showed the following signs of a disease attack:

- Abortions in nannies.
- Enlargement of scrotum and testes in billies.

Use the information to answer question 6 (i) to (iii).

- (i) Name the disease that attacked the goats.

_____ (1 mark)

- (ii) State any **two** ways of controlling the spread of the disease.

 _____ (2 marks)

Continued

6. (Continued)

(iii) Name the causative agent of the disease.

(1 mark)

7. a. **Figure 3** shows a livestock grazing system. Use it to answer questions (i) and (ii).

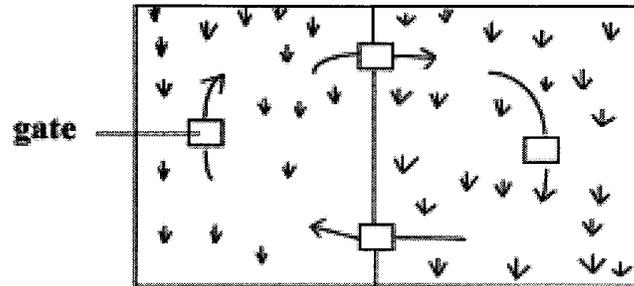


Figure 3

(i) Identify the grazing system.

(1 mark)

(ii) Explain any **two** ways in which the grazing system is important in pasture management.

(4 marks)

b. Give any **one** advantage of differed grazing system.

(1 mark)

Continued/...

7. (Continued)

c. Describe any **two** ways through which nitrogen would be depleted from the soil.

(4 marks)

d. Define the term "land drainage".

(1 mark)

8. a. Explain any **two** ways in which controlling burning of pasture in the dry season is important.

(4 marks)

b. Explain **one** way in which method of storing conserved pasture would affect its quality.

(2marks)

986

1879

9. **Figure 4** is a flow diagram for biogas production. Use it to answer questions (i) to (iii).

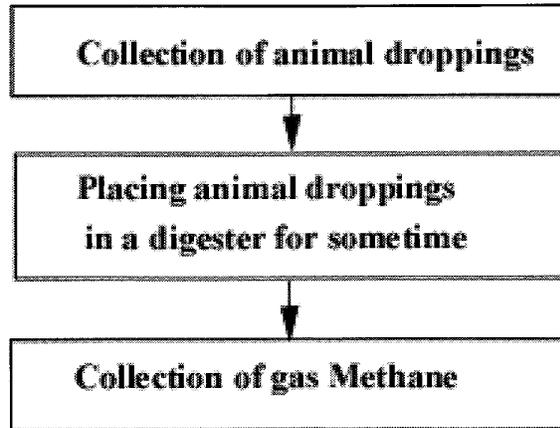


Figure 4

- (i) Name the process that takes place in a digester.

_____ (1 mark)

- (ii) Give any **one** advantage of collecting methane gas.

 _____ (1 mark)

- (iii) Explain any **two** ways in which the biogas production mitigates climate change.

 _____ (4 marks)

10. Outline **four** steps involved in silage making.

 _____ (4 marks)

Continued/...



