

THE KENYA NATIONAL EXAMINATIONS COUNCIL
Kenya Certificate of Secondary Education



443/2

AGRICULTURE (Theory)

Nov. 2023 - 2 hours

Paper 2

Serial No.

28516257

Name:

Index Number:

Candidate's signature:

Date:

Instructions to Candidates

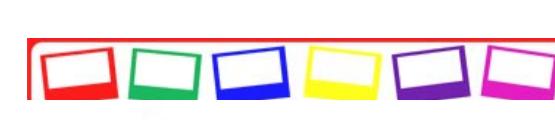
- (a) Write your name and index number in the spaces provided above.
- (b) Sign and write the date of examination in the spaces provided above.
- (c) This paper consists of three sections; A, B and C.
- (d) Answer all the questions in sections A and B.
- (e) Answer any two questions in section C.
- (f) All answers should be written in the spaces provided.
- (g) This paper consists of 16 printed pages.
- (h) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
- (i) Candidates should answer the questions in English.



For Examiner's Use Only

Section	Question	Maximum Score	Candidate's Score
A	1 - 15	30	
B	16 - 19	20	
C		20	
		20	
Total Score		90	



**SECTION A (30 marks)**

Answer all the questions in this section in the spaces provided.



- 1 Name **four** types of feeds given to pigs from birth to maturity. (2 marks)

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- 2 State **two** characteristics of each of the following goat breeds:

(a) saanen; (1 mark)

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.....

(b) toggenberg. 

- 3 State **four** behavioural characteristics that may indicate sickness in livestock. (2 marks)

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- 4 Give **four** reasons why livestock breeding is carried out. (2 marks)

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- 5** State four importance of flushing in ewes. (2 marks)

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- 6** State four predisposing factors of livestock diseases. (2 marks)

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- 7** State four advantages of castrating male piglets. (2 marks)

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- 8** Give four control measures to prevent egg-eating in a deep litter poultry rearing system. (2 marks)

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- 9** Give four reasons for carrying out maintenance practices on a chaff cutter. (2 marks)

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- 10 State **four** signs of livestock sickness observed on dung. (2 marks)

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- 11 State **four** uses of electric power in a dairy unit. (2 marks)

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- 12 Name **two** sheep breeds that are reared for:

(a) mutton; (1 mark)

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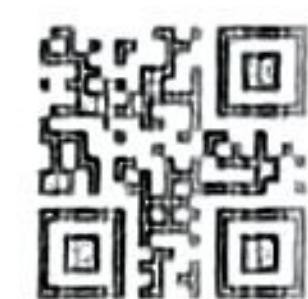
(b) both mutton and wool. (1 mark)

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.....

- 13 State **four** advantages of animal power over tractor power. (2 marks)

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.....

14 Name the farm tool used for each of the following:



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(a) cutting curves in wood; ($\frac{1}{2}$ mark)

.....

(b) smoothing curved wood surface; ($\frac{1}{2}$ mark)

.....

(c) bloodless castration; ($\frac{1}{2}$ mark)

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(d) cutting and splicing wires. ($\frac{1}{2}$ mark)

15 State four factors considered when selecting construction materials.

(2 marks)

SECTION B (20 marks)

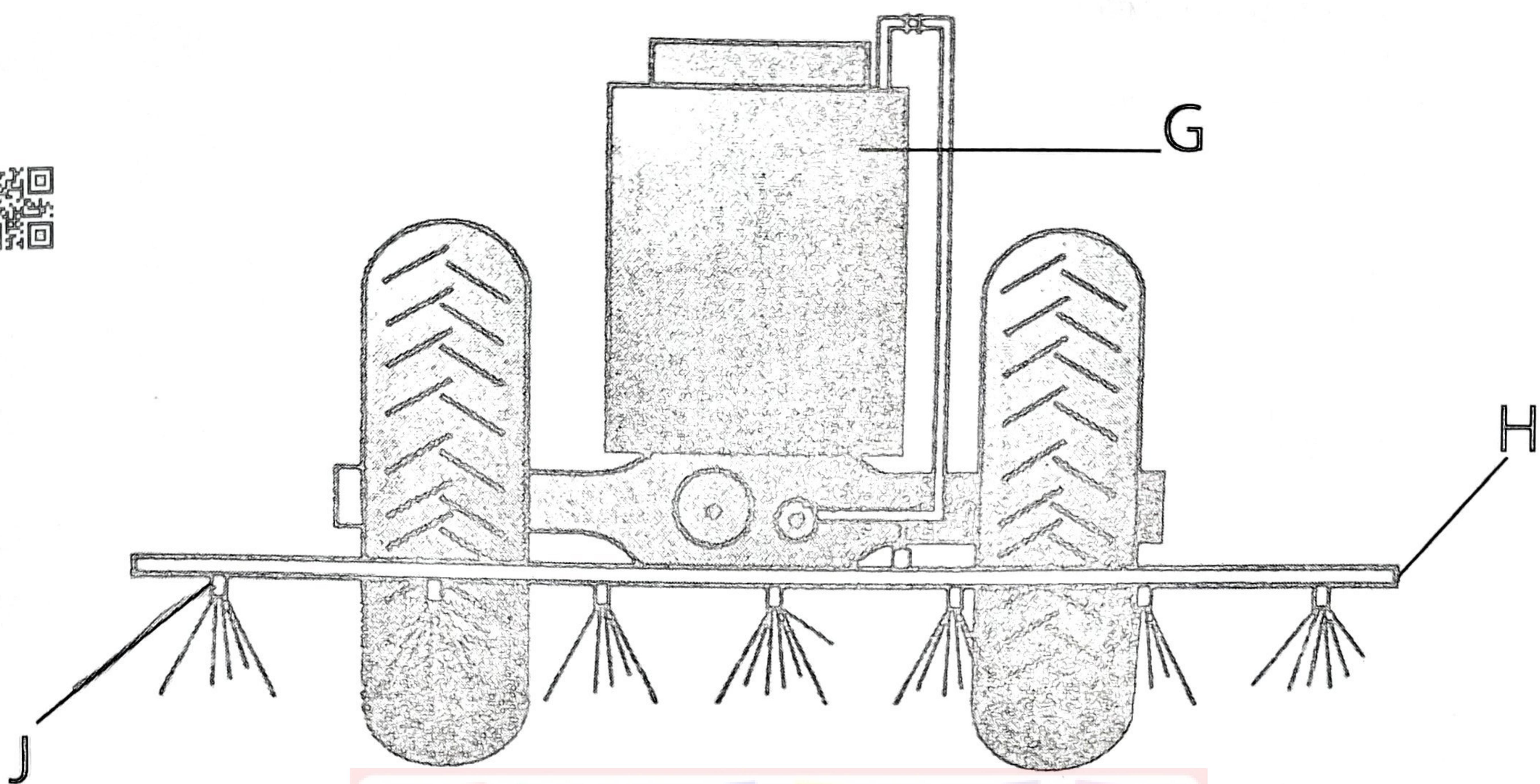
Answer all the questions in this section in the spaces provided.

- 16 The following diagram shows a livestock rearing practice.



- (a) Give a reason why the practice is carried out. (1 mark)
-
- (b) Using letters X and Y, mark on the diagram, the animal part that is targeted:
- first (X); (1 mark)
 - last (Y). (1 mark)
- (c) Name the farm structure in which the practice should be carried out. (1 mark)
-
- (d) Name the farm equipment the farmer used to carry out the practice. (1 mark)
-

- 17 The following picture shows a tractor drawn implement.



(a) Identify the implement. (1 mark)

(b) Name the part labelled:

G (1 mark)

H (1 mark)

J (1 mark)

(c) State one maintenance practice for the part labelled J. (1 mark)



18 A farmer observed the following symptoms on a cow:

- distended left side of the abdomen;
- difficulty in breathing;
- profuse salivation;
- cow lies down and is unable to rise up.

(a) Identify the disorder the cow was suffering from. (1 mark)

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(b) State two factors that may have led to the disorder. (2 marks)

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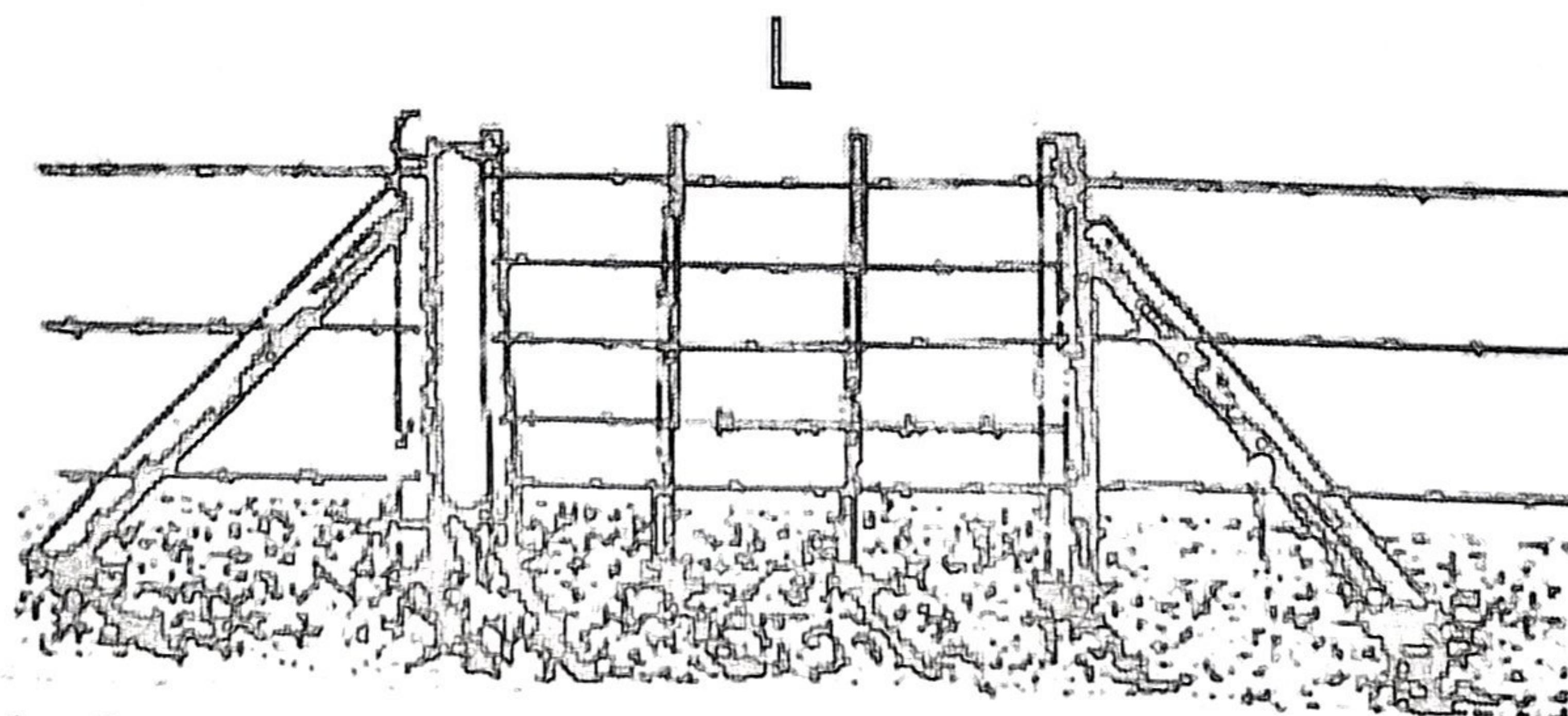
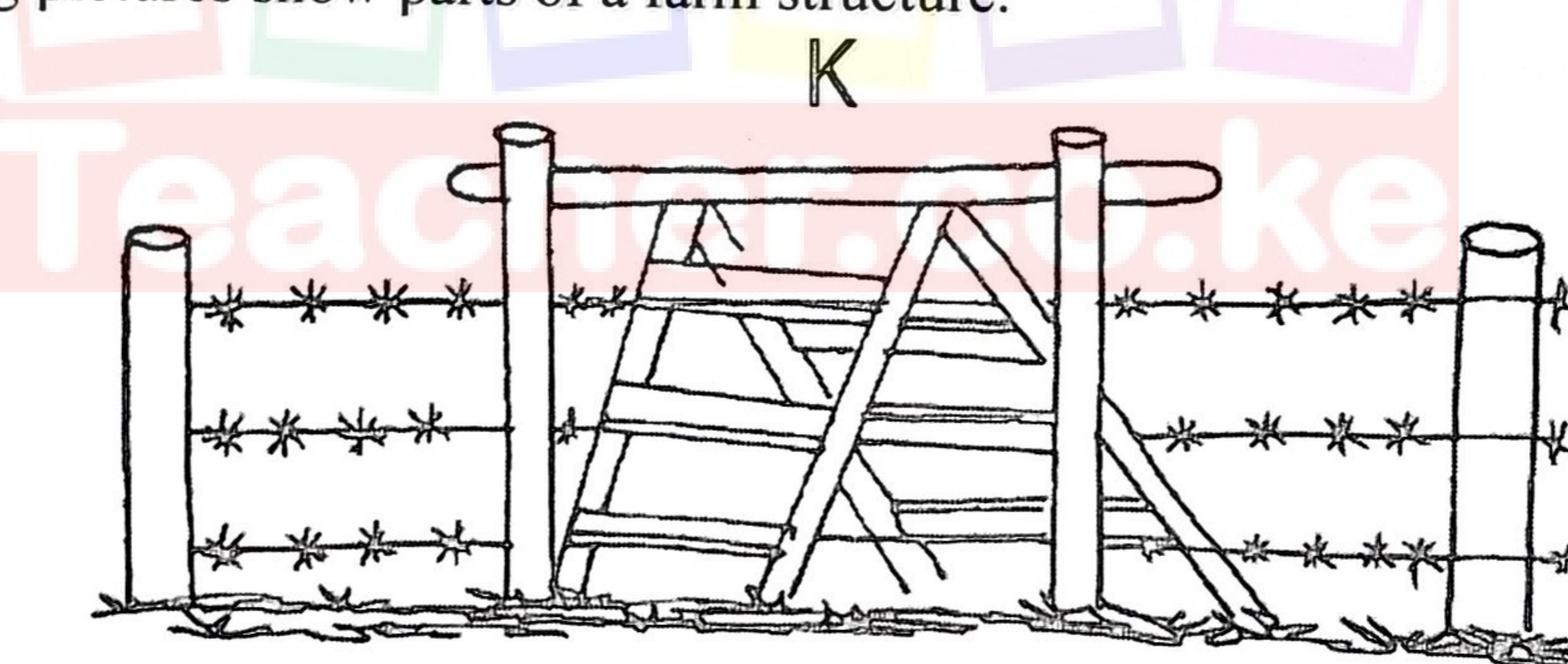
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(2 marks)

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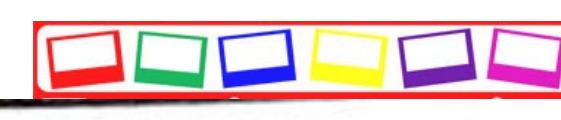
19 The following pictures show parts of a farm structure.



(a) Identify the farm structure.

(1 mark)

.....



- (b) Name the part labelled:
K (1 mark)
-

L (1 mark)

.....

- (c) State one functional difference between the parts labelled K and L. (1 mark)
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- (d) Give one maintenance practice for the part labelled L. (1 mark)
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SECTION C (40 marks)

Answer any two questions from this section in the spaces provided after question 22.

- 20 (a) Describe roundworm (*Ascaris spp*) infestation in livestock under the following sub-headings:
- (i) livestock infested; (2 marks)
 - (ii) symptoms of infestation; (4 marks)
 - (iii) control measures. (4 marks)
- (b) Explain five conditions necessary for artificial incubation of eggs in poultry farming. (10 marks)
- 21 (a) Describe the rearing of a dairy calf under the following sub-headings:
- (i) feeding; (6 marks)
 - (ii) housing. (4 marks)
- (b) Describe the establishment of a barbed wire fence. (6 marks)
- (c) State four disadvantages of live fences. (4 marks)

- 22 (a) Give **five** reasons why inbreeding is discouraged in pig rearing. (5 marks)
- (b) A dairy animal dies on a farm and is suspected to have died of anthrax disease.
- (i) State **three** observations that the farmer could have made on the carcass to suspect anthrax disease. (3 marks)
- (ii) Describe **four** precautions the farmer should take when disposing the carcass. (4 marks)
- (c) Describe how the following parts of the poultry digestive system are adapted to their function using the table provided.

#	Part	Adaptation	Function	Score
(i)	Beak			(2 marks)
(ii)	Crop			(2 marks)
(iii)	Gizzard			(2 marks)
(iv)	Caecum			(2 marks)

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