

443/2

# AGRICULTURE

(Theory)

Mar. 2022 – 2 hours

Paper 2



Name ..... Index Number .....

Candidate's Signature ..... Date .....

### Instructions to candidates

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

### For Examiner's Use Only

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



**SECTION A (30 marks)**

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

1. Give **four** maintenance practices carried out on a knapsack sprayer. (2 marks)

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2. State **four** reasons why rabbits are kept by farmers in Kenya. (2 marks)

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3. State **four** maintenance practices carried out on a piggery unit. (2 marks)

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4. Name the **four** stomach compartments of a ruminant. (2 marks)

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5. State **four** causes of stress in poultry. (2 marks)

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6. Give **one** reason why the milkman should:

(a) milk at regular intervals (1/2 mark)

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(b) avoid milking with wet hands (1/2 mark)

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(c) milk quickly and evenly (1/2 mark)

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(d) practice complete milking (1/2 mark)

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7. State **four** factors that determine the amount of feed an animal consumes. (2 marks)

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8. Give **one** use of each of the following farm tools:

(a) pipe wrench

( $\frac{1}{2}$  mark)

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(b) tenon saw

( $\frac{1}{2}$  mark)

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(c) spoke shave

( $\frac{1}{2}$  mark)

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(d) elastrator.

( $\frac{1}{2}$  mark)

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9. State **four** control measures for *Brucellosis* in cattle.

(2 marks)

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10. (a) Give **two** roles of wood shavings used as litter in the artificial brooder.

(1 mark)

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(b) Give **two** reasons why a chicken brooder should have a round shape.

(1 mark)

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11. Name **four** parts of the ignition system of a petrol engine. (2 marks)

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12. (a) State **two** signs that show a rabbit is about to give birth. (1 mark)

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(b) If a doe was served on 7th March 2021, determine the date it gave birth. ( $\frac{1}{2}$  mark)

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(c) What is the name given to the young one of a rabbit? ( $\frac{1}{2}$  mark)

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13. State **four** advantages of artificial calf feeding. (2 marks)

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14. Give **four** characteristics of clean milk. (2 marks)

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15. (a) Name **two** methods of service used in livestock breeding. (1 mark)

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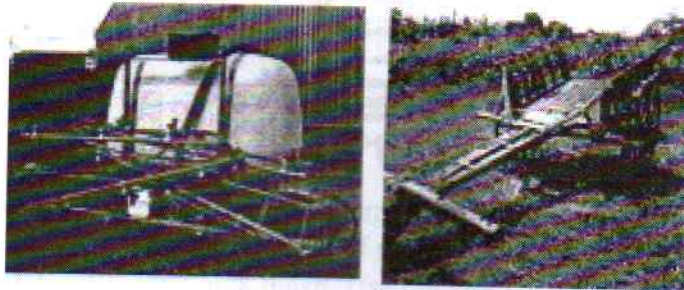
(b) Name **two** cattle diseases controlled through Government-imposed quarantine in Kenya. (1 mark)

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## SECTION B (20 marks)

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

16. The diagrams R and S show farm implements.



R

S

- (a) Name the source of power used to operate the farm implement labelled:

R

(1 mark)

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S

(1 mark)

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- (b) State the means by which the farm implement labelled S is attached to its source of power. (1 mark)

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- (c) Give **two** maintenance practices carried out on the implement labelled R. (2 marks)

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17. The diagram below shows a parasite commonly observed on sheep.



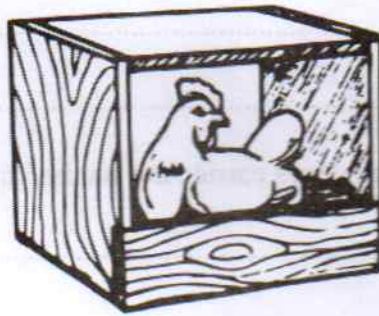
(a) Identify the parasite. (1 mark)

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(b) State **four** harmful effects of the parasite in sheep rearing. (4 marks)

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18. The diagram below shows a method of incubation in poultry rearing.



(a) Identify the method of incubation shown above. (1 mark)

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(b) State **four** advantages of the method of incubation shown in Question 18. (4 marks)

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19. A poultry farmer wants to prepare 200 kilograms of chick mash containing 20% Digestible Crude Protein (DCP). Calculate the amount of maize (10% DCP) and fish meal (60% DCP) the farmer requires to make the chick mash. Use the Pearson's square method and show your working. (5 marks)

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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 calf scours under the following subheadings:
- (i) causal organism. (1 mark)
  - (ii) predisposing factors. (3 marks)
  - (iii) control measures. (4 marks)
- (b) Describe the rearing of day-old layer chicks up to the age of eight weeks. (12 marks)
- 21.** (a) Describe milk secretion in a dairy cow. (5 marks)
- (b) Describe **six** factors that are considered when selecting a gilt for breeding. (6 marks)
- (c) Give **nine** reasons why the battery cage system of rearing is popularly used by large scale poultry farmers. (9 marks)
- 22.** (a) Describe **five** management practices carried out on a fish pond. (5 marks)
- (b) (i) Give **five** reasons for farm mechanisation. (5 marks)
- (ii) Describe **six** symptoms observed on a calf heavily infested with internal parasites. (6 marks)
- (c) Give **four** routine rearing practices in the handling of livestock. (4 marks)

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