

443/2

— **AGRICULTURE** —

Paper 2

(THEORY)

Nov. 2019 – 2 hours



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 all 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. State **four** effects of fleas in poultry. (2 marks)

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2. Name **two** breeds of dairy cattle with the highest

- (a) butter fat content (1 mark)

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- (b) milk yield (1 mark)

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3. State **four** ways in which vaccines are administered to livestock. (2 marks)

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4. State **four** characteristics of animals which require a high maintenance ration. (2 marks)

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5. State **four** microbial activities that occur in the rumen. (2 marks)

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6. Name **four** pests that attack bees. (2 marks)

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7. Name **four** mineral deficiency livestock disorders. (2 marks)

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8. State **four** control measures for fowl typhoid. (2 marks)

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9. State the function of each of the following:

(a) mallet (½ mark)

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(b) trocar and canula (½ mark)

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(c) garden line (½ mark)

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(d) stock and die (½ mark)

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10. State **four** maintenance practices carried out on a wheelbarrow. (2 marks)

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11. State **four** limitations of biogas as a source of power on the farm. (2 marks)

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12. State **four** functional differences between disc and mouldboard ploughs. (2 marks)

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13. State **four** advantages of the Kenya Top Bar Hive (K.T.B.H.) over the log hive. (2 marks)

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14. Distinguish between the following practices as used in livestock production:

(a) tugging and serving (1 mark)

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(b) ringing and raddling (1 mark)

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15. (a) Name the causal organism for East Coast Fever. (½ mark)

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(b) State **three** ways in which infectious diseases spread from one animal to another. (1½ marks)

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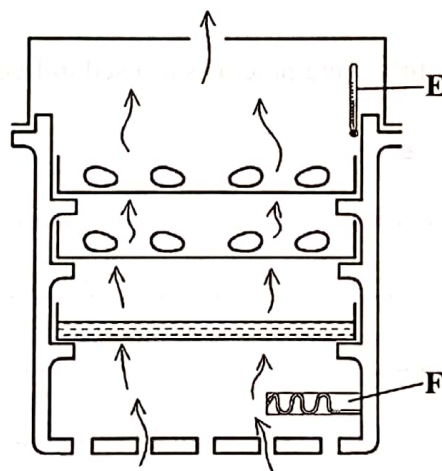
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SECTION B (20 marks)

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

16. The diagram below illustrates a practice in poultry rearing.



(a) Identify the practice. (1 mark)

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(b) Name the part labelled

E (1 mark)

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F (1 mark)

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(c) Explain **two** activities **not** shown in the illustration but very important for the practice to succeed. (2 marks)

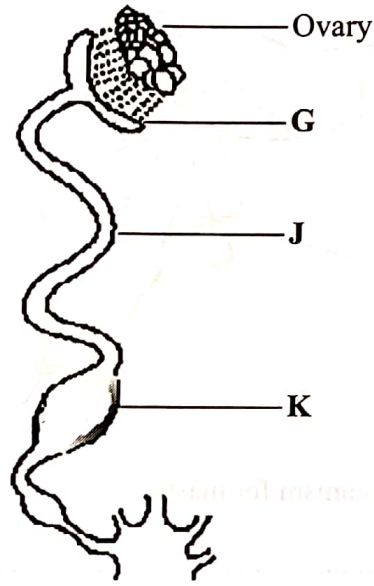
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17. The diagram below shows the reproductive system of a hen.



(a) Name the part labelled K (1 mark)

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(b) State **one** function of each of the parts labelled

G (1 mark)

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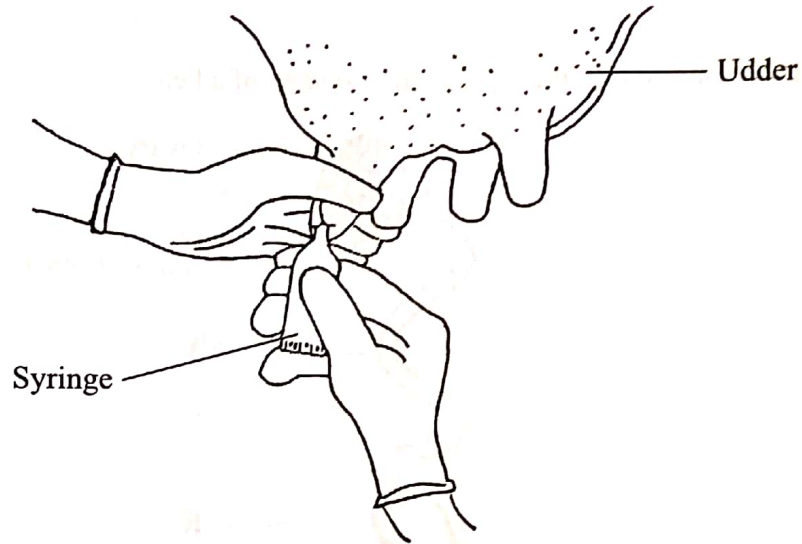
J (1 mark)

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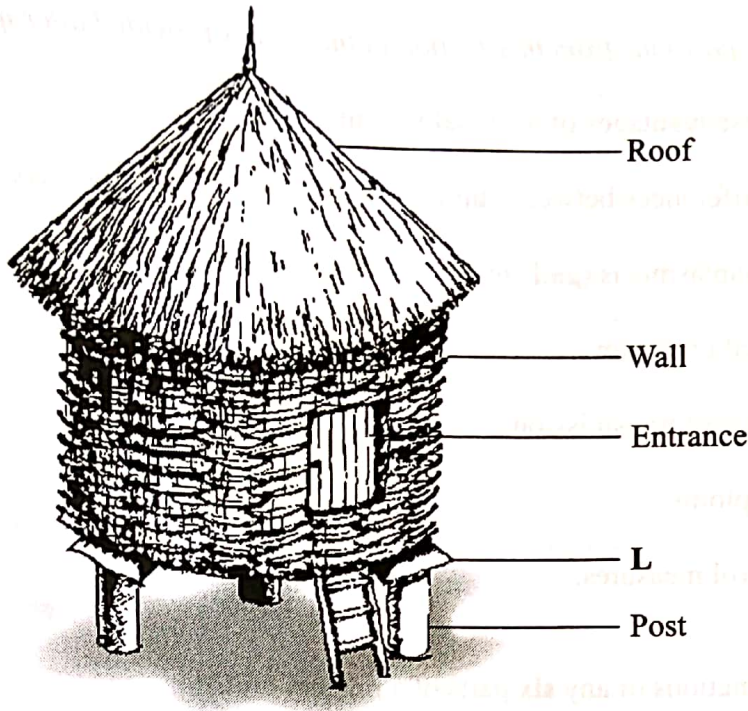
- (c) (i) What is the maximum number of eggs a hen can lay in a day? (1 mark)
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- (ii) Give a reason for your answer in (c) (i) above. (1 mark)
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18. The diagram below illustrates a treatment practice for a cow's udder infected with mastitis.



- (a) Name the causal organism for mastitis. (1 mark)
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- (b) Explain the treatment practice illustrated. (1 mark)
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- (c) How is mastitis infection detected in a lactating cow? (1 mark)
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- (d) How is an infected cow handled during milking to prevent spread of the disease to other animals? (2 marks)
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19. The diagram below shows a farm structure for storing grains



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(a) Identify the farm structure. (1 mark)

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(b) State the function of the part labelled L. (1 mark)

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(c) State one disadvantage of the roofing material used on the farm structure. (1 mark)

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(d) State two ways in which the structure is made ready for grain storage. (2 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) State **five** disadvantages of artificial insemination. (5 marks)
- (b) State **five** differences between ruminant and non-ruminant digestive systems. (5 marks)
- (c) Describe anaplasmosis (gall sickness) disease under the following sub-headings:
 - (i) causal organism (1 mark)
 - (ii) modes of transmission (2 marks)
 - (iii) symptoms (4 marks)
 - (iv) control measures. (3 marks)

- 21. (a) State the functions of any **six** parts of a piggery unit. (6 marks)
- (b) Explain **six** disadvantages of animal drawn implements. (6 marks)
- (c) State **eight** symptoms of tapeworm infestation in cattle. (8 marks)

- 22. (a) Explain **five** precautions taken by dairy farmers to ensure clean milk production. (10 marks)
- (b) Describe how chicken is dressed for sale. (10 marks)

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