THE KENYA NATIONAL EXAMINATIONS COUNCIL
Kenya Certificate of Secondary Education

443/2   –   **AGRICULTURE**   –   **Paper 2**
(THEORY)
Nov. 2017 – 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 in the question paper.
(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	Questions	Maximum Score	Candidate's Score
A	1–16	30	
B	17–20	20	
C		20	
		20	
	Total Score	90	

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SECTION A (30 marks)

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

1. Name **one** breed of livestock under each of the following categories:

    (a)   dairy cattle .... (½ mark)

    (b)   dual purpose cattle .... (½ mark)

    (c)   dual purpose sheep .... (½ mark)

    (d)   hair goat .... (½ mark)

2. State **four** egg abnormalities observed during egg candling.   (2 marks)

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3. Give **four** reasons for livestock breeding.   (2 marks)

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4. Give **two** reasons for hoof trimming.   (1 mark)

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5. State **four** signs of Anthrax disease. (2 marks)

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6. Name **four** methods of dehorning. (2 marks)

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7. Give **four** reasons for keeping dairy animals healthy. (2 marks)

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8. State **four** features of a clean milkman. (2 marks)

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9. Name **four** maintenance practices for a wire fence. (2 marks)

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10. State **four** reasons why dorper breed of sheep is good for mutton production. (2 marks)

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11. State **four** control measures for tsetse flies. (2 marks)

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12. Explain how each of the following is measured in cattle:

   (a) blood temperature (½ mark)

   ....

   (b) respiratory rate (½ mark)

   ....

   (c) pulse rate. (½ mark)

   ....

13. State the gestation period for each of the following:

    (a)   cow   (½ mark)

    ....

    (b)   sow   (½ mark)

    ....

    (c)   ewe   (½ mark)

    ....

    (d)   rabbit.   (½ mark)

    ....

14. State **four** features of large white breed of pigs.   (2 marks)

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15. State **four** functions of worker bees in a bee colony.   (2 marks)

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16. State **three** ways of caponisation in poultry.   (1½ marks)

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SECTION B (20 marks)

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

17. The diagrams below represent farm tools and equipment.
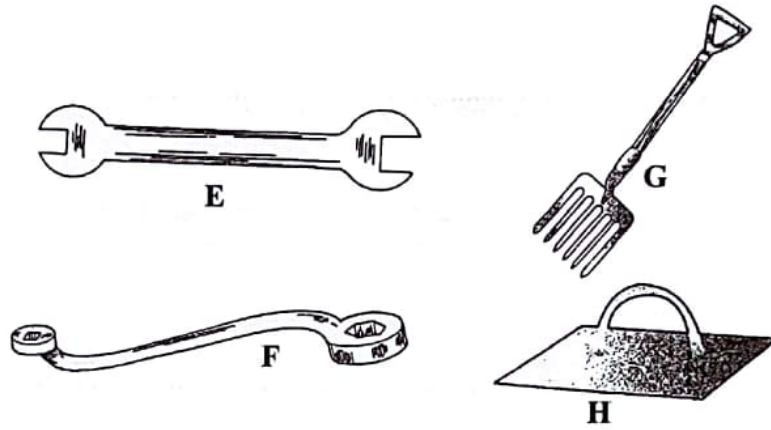
(a) Identify the tools labelled **E** and **F**.

E (1 mark)

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F (1 mark)

....

(b) State **one** use of each of the tools labelled **F** and **G**

F (1 mark)

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G (1 mark)

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(c) State **one** advantage the tool labelled **F** has over **E**. (1 mark)

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18. The diagram below illustrates an external parasite of livestock.
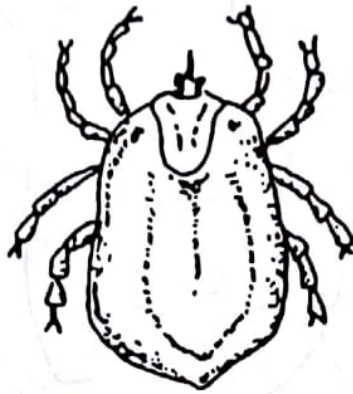
(a) Identify the parasite. (1 mark)

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(b) Apart from eggs and adults, name **two** other developmental stages of the parasite illustrated above. (1 mark)

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(c) Name **two** livestock diseases transmitted by the illustrated parasite. (1 mark)

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(d) Explain **two** ways in which the environment is altered to control the parasite illustrated above. (2 marks)

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19. The diagram below shows a cross section of a fish pond
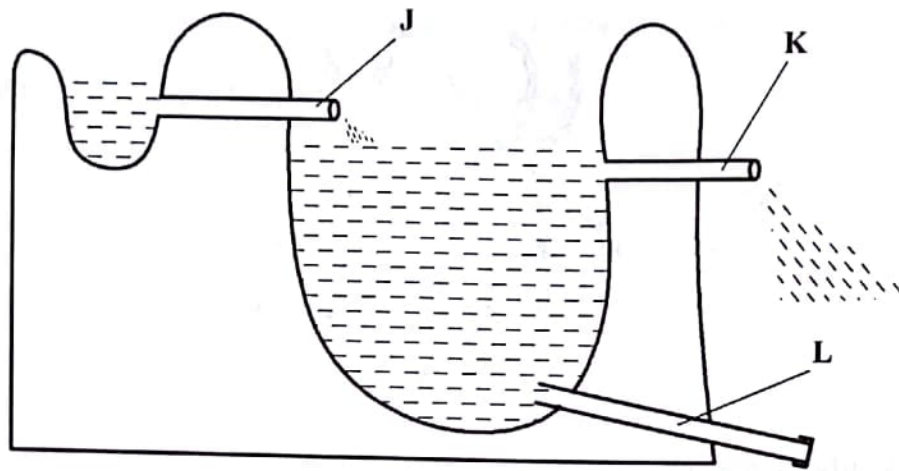
(a) Name the part labelled

    J (1 mark)

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    K (1 mark)

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

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(c) Give **one** reason why a pond should have a deep end. (1 mark)

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(d) Explain how fingerlings are introduced into a pond? (1 mark)

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20. The diagram below shows calf presentations during parturition.
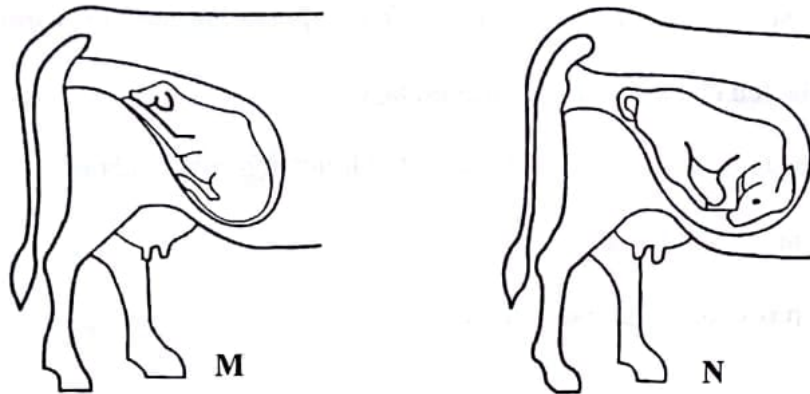
(a) Name the presentation labelled

M (1 mark)

....

N (1 mark)

....

(b) Which **one** of the two presentations requires the services of a qualified stockman?
(1 mark)

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(c) State **two** signs of parturition observed on the vulva. (2 marks)

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SECTION C (40 marks)

*Answer any **two** questions from this section in the spaces provided after **question 23**.*

21. (a) Describe **ten** characteristics of a good layer. (10 marks)

    (b) Describe the milking procedure under the following sub-headings:

    (i) pre-milking practices (5 marks)

    (ii) procedure of proper milking. (5 marks)

22. (a) Describe Brucellosis disease in cattle under the following sub-headings:

    (i) causal organism (1 mark)

    (ii) signs of attack (4 marks)

    (iii) control measures. (5 marks)

    (b) Explain **five** factors that affect the digestibility of a feed material. (5 marks)

    (c) Explain **five** requirements of an artificial brooder in poultry rearing. (5 marks)

23. (a) State **five** harmful effects of lice in pigs. (5 marks)

    (b) Explain **five** structural requirements for a grain store. (5 marks)

    (c) Describe **five** maintenance practices for the water cooling system of a tractor. (5 marks)

    (d) Give **five** differences between diesel and petrol engines. (5 marks)

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