

NAME: INDEX NO:

SIGNATURE: DATE :

443/2

AGRICULTURE

PAPER 2

JULY / AUGUST 2011

TIME: 2 HOURS

**NANDI EAST, NANDI SOUTH AND TINDERET DISTRICTS
JOINT EVALUATION TEST
KENYA CERTIFICATE OF SECONDARY EDUCATION (KCSE)**

INSTRUCTIONS TO CANDIDATES:

- (a) Write your name and Index number in the spaces provided.
- (b) Sign and write the date of examination in the spaces provided.
- (c) This paper consists of *THREE* sections A, B and C.
- (d) Answer *ALL* questions in Section A and B and any two in Section C.
- (e) All answers *MUST BE* written in the spaces provided in this booklet.
- (f) Do not remove any pages from this booklet.

FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	MAX. SCORE	CANDIDATE SCORE
A	1 – 20	30	
B	21 – 23	20	
C		40	
Total Score		90	

SECTION A (30 MARKS)

Answer ALL Questions in the Spaces Provided

1. Identify the following breeds:-

(a) A goat breed, brown in colour with two white stripes from the eye to the nose. (½ mk)

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(b) A dairy cattle breed, light yellowish brown (fawn) to a shade of black, protruding black eyes, tail switch and muzzles are black. (½ mk)

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2. Give **two** functions of vitamins in livestock production. (1mk)

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3. List **two** methods that a dairy farmer can use in out breeding. (1mk)

(i)

(ii)

4. (a) Define the term notifiable disease in cattle. (1mk)

.....

.....

(b) Name any **two** notifiable diseases in cattle. (1mk)

(i).....

(ii)

5. Give **four** factors that determine the nutritional requirement in cattle. (2mks)

(i)

(ii)

(iii)

(iv)

6. Give **three** factors that should be considered when selecting gilt for breeding. (1½mks)

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7. State **two** predisposing factors to foot-rot disease. (1mk)

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8. State **two** factors which influence the quality of honey. (1mk)

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9. Give **four** factors to consider when locating a fish pond on a farm. (2mks)

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10. Explain what is meant by “dry cow therapy.” (1mk)

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11. A deep litter poultry house measures 18m x 6m. Suppose the amount of space allowed for two birds is 0.27m², calculate the number of birds that can be kept comfortably in this house. Show your working. (3mks)

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12. (a) Name **four** components of a power transmission system. (2mks)

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(b) Give any **two** general uses of solar energy on the farm. (1mk)

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13. (a) State **three** maintenance practices carried out on a milking machine. (1½mks)

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(b) Give the functional difference between a pruning knife and a pruning saw. (1mk)

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14. Give **two** reasons why a Jersey breed cattle is adapted to arid and semi arid areas. (1mk)

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15. Which livestock disease is transmitted by each of the following ticks:

(a) Blue Tick (Boo Philus decoloratus) (½ mk)

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(b) Brown Ear Tick (Rhipicephalus appendiculatus) (½ mk)

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16. State **two** methods that may be used to improve milk production in a herd of indigenous goats.

(1mk)

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17. List **two** harmful effects of internal parasites in livestock. (1mk)

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18. List **two** factors affecting digestibility of a feed.

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19. (a) Name **two** types of mowers used in a farm. (1mk)

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(b) Name **two** maintenance practices carried out on a mower. (1mk)

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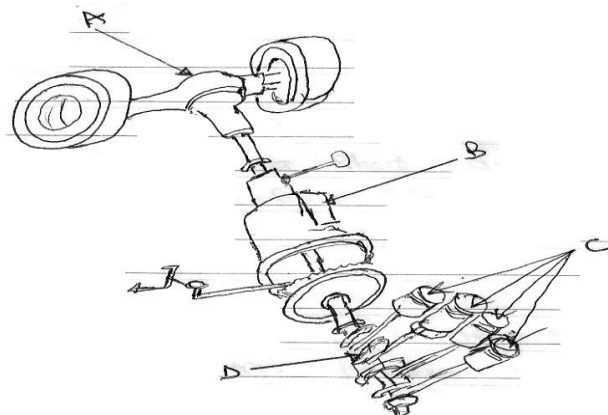
20. State **two** reasons for de-beaking in poultry management. (1mk)

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SECTION B: (20 MARKS)

Answer ALL the questions in this question in the spaces provided

21. Study the illustration of power transmission system of a tractor.



(a) Identify and name the parts labeled A, C and D. (1½mks)

A:.....

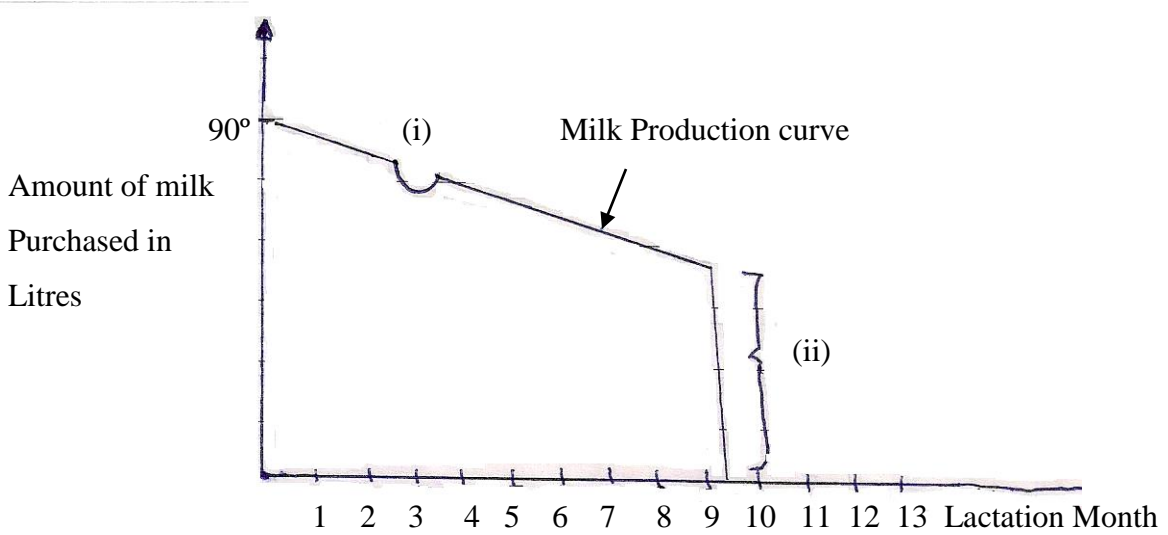
C:

D:

(b) State two functions of Part B. (1mk)

.....

(c) The diagram below illustrates a graphical representation of milk production from calving.



(i) Why is the highest milk production recorded during the 1st month after calving? (1mk)

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(ii) What is the cause of the milk production decline at the point marked (i) on the curve? (1mk)

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(iii) Why is there a sharp drop in milk production at the part of the curve marked (ii) on the curve? (1mk)

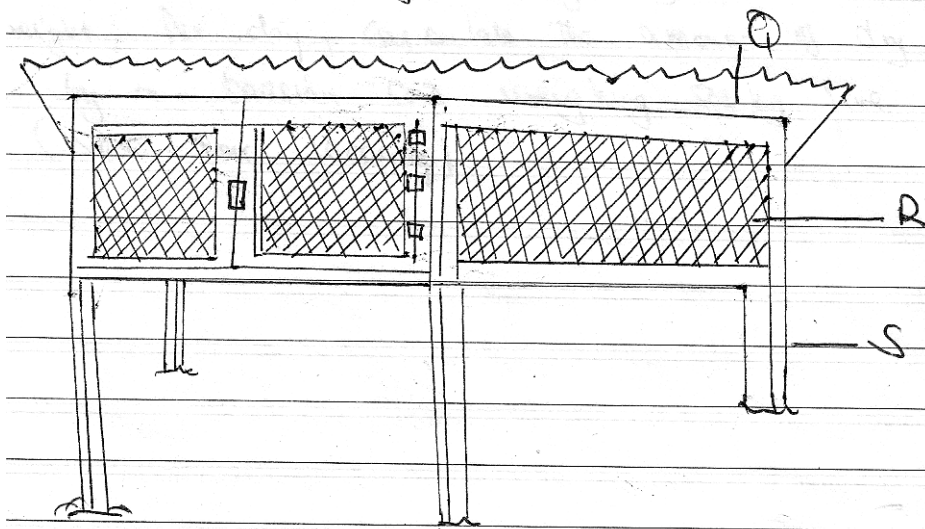
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(iv) Other than age, state any other two factors that influence the amount of milk production in dairy cattle. (2mks)

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22. Below is a diagram of a rabbit hutch with some parts labeled Q, R and S. Use the diagram to answer questions that follow.



(i) Give **three** factors to be considered when siting the rabbit hutch. (1½ mks)

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(ii) How should the materials used for constructing parts Q and S be treated so as to last long.

Q:(½ mk)

S:(½ mk)

(iii) Name **one** appropriate tool that can be used in constructing parts Q and S. (1mk)

Q:(½ mk)

S:(½ mk)

(iv) Give **two** reasons for raising a rabbit hutch above the ground level. (1mk)

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23. (a) If a dairy cow consumes 5kg dry matter for every 100kg body weight per day, calculate the amount of dry matter consumed by a Friesian cow weighing 500kg live weight per year (show your workings. (3mks)

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(b) Given that Napier grass has DM yield of 30 tonnes per ha per year (30 tonnes / year). Calculate the number of Friesian cows that can be supported by the grass grown in a hectare. (Show your working). (3mks)

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(c) Give **one** disadvantage of using Pearsons square method in computation of feed ration. (1mk)

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SECTION C: (40 MARKS)

Answer ANY two questions from this section in the spaces provided after question 26.

24. (a) Discuss brucellosis disease under the following sub-headings:-

- (i) Causal organism (1mk)
- (ii) List **four** Livestock attacked by brucellosis. (2mks)
- (iii) Symptoms of attack. (4mks)
- (iv) Control measures. (4mks)

(b) Describe **five** advantages of artificial insemination in Livestock breeding. (5mks)

(c) State and explain **four** factors that influence siting of farm structures. (4mks)

25. (a) Describe deep litter system of rearing poultry under the following sub-headings:-

- (i) Requirements. (4mks)
- (ii) Advantages. (4mks)
- (iii) Disadvantages. (4mks)

(b) Describe **four** essentials of clean milk production. (4mks)

(c) Identify **four** factors that a farmer in Nandi County will consider when choosing tools to use when preparing his maize field. (4mks)

26. (a) Describe care and maintenance of a water cooled engine in a tractor. (8mks)

(b) Give **five** signs of attack by external parasites in livestock (5mks)

(c) List **seven** features of an ideal calf pen. (7mks)