

Name.....Adm no.....
School..... Date.....
Index no.....

LAINAKU I FORM FOUR YEAR 2015 JOINT EXAM
Kenya Certificate of Secondary Education (K.C.S.E)

443/1
AGRICULTURE
Paper 1
April 2015
2 Hours

Instructions to candidates.

1. Write your name and index number in the spaces provided above
2. This paper consists of three sections: A, B and C.
3. Answer all the questions in sections A and B.
4. Answer any two questions in section C.
5. All answers should be written in the spaces provided.
6. Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.

FOR EXERMINER'S USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATES SCORE
A	1 – 20	30	
B	21- 25	20	
C		20	
		20	
TOTAL SCORE		90	

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SECTION A - 30MKS

1. Outline **four** indicators of a well rotten manure (2mks)
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.....
.....
.....
2. Name **two** types of inventory records used in farm accounts (1mk)
.....
.....
3. Give **two** underground water sources in the farm (1mk)
.....
.....
4. Outline **four** biological / cultural methods that help to reduce soil erosion (2mks)
.....
.....
.....
5. Name any **four** non-chemical methods of controlling storage pests in a maize granary (2mks)
.....
.....
.....
6. Give the crop propagated using the following vegetative parts (2mks)
 - (i) Stem tuber
.....
 - (ii) Splits
.....
 - (iii) Bulbs
.....
 - (iv) Bulbils (2mks)
.....
7. Distinguish between roueging and gapping in crop management (1mk)
.....
.....
8. State **two** liming elements in agriculture (1mk)
.....
.....
9. State **two** reasons why too much air in the silo is undesirable in the process of silage making(1mk)

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.....
10. Give **three** general symptoms of Fungal disease in crops (1 ½ mk)

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.....
.....

11. State **four** importance of tissue culture in crop production (2mks)

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.....
.....

12. What are composite seeds (1mk)

.....
.....

13. State **three** symptoms of calcium deficiency in crops (1 ½ mk)

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.....
.....

14. Name **three** types of micro-catchment (1 ½ mk)

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.....
.....

15. State **two** advantages of planting sees using broadcasting method (1mk)

.....
.....

16. Mention **four** land reform programmes in Kenya (2mks)

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.....
.....

17. What is complete fertilizer (1mk)

.....
.....

18. Give any **three** disadvantages of plastic pipes when conveying water on the farm (1mk)

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.....

19. Give **four** practices a farmer can carry out to assure maximum use of nitrogenous fertilizer in crop of maize (2mks)

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.....

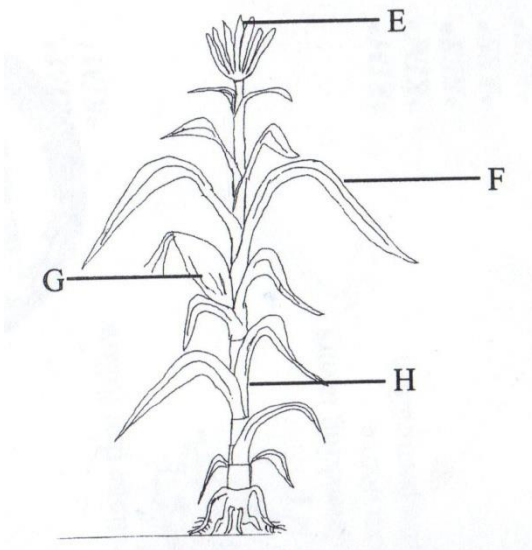
.....
.....
20. Name **four** examples of pasture grass species for high altitude (2mks)

.....
.....
.....
.....

SECTION B (20MKS)

Answer all questions in this section

21. Study the drawing of the maize plant given below and use it to answer the following



(i) Name the different diseases that attack parts labeled E,F and G (3mks)

E
.....
F
.....
G
.....

(ii) Give a control measure for disease for the disease you have mentioned in F (1mk)

.....

(iii) Name the maize pest that bores through the part labeled H (1mk)

.....

22. Define the following terms

(a) Carrying capacity (1mk)

.....
.....

(b) Stocking rate (1mk)

.....
.....

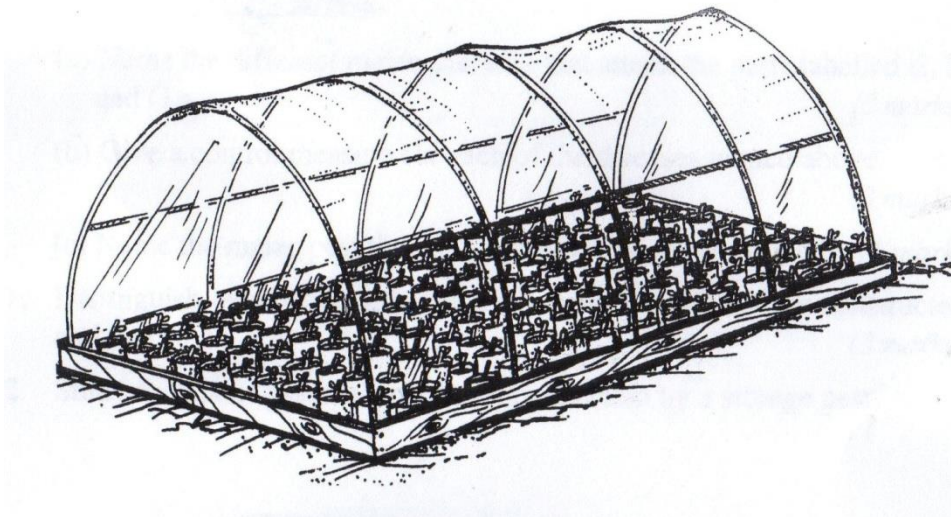
- (c) If a dairy cow consume 5kg dry matter for every 100kg body weight per day, calculate the amount of dry matter consumed by a fresian cow weighing 500kg live weight per year. Show your working (2mks)

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.....
.....
.....
.....

- (d) Given that nappier grass has dry matter yield of 30 tonnes/ha/year. Calculate the number of Friesian cows that can be supported by the grass (2mks)

.....
.....
.....
.....

23. Study the diagram given and answer the questions that follow



- (a) State the importance of the transparent polythene sheet (1mk)

.....
.....

- (b) What are the practice carried out when the seedlings are establishing in the structure above (2mks)

.....
.....

- (c) State the advantages of using seedling boxes over ground nurseries (2mk)

24. Study the weed illustrated below and then answer the questions that follow:



- (a) Identify the weed (1mk)
.....
- (b) What group of weeds does it belong to? (1mk)
.....
- (c) Name the crop it can contaminate (1mk)
.....
- (d) State **two** methods of controlling it (2mks)
.....

25. Sulphate of Ammonia (SA) and calcium ammonium Nitrate (CAN) have approximately the same percentage of nitrogen

- (i) Which of the **two** fertilizers would recommend on a soil that is already acidic, and why? (2mks)
.....
.....
- (ii) If a field of tea requires 200 kg/ha Sulphate of Ammonia for top dressing, how much nitrogen content will be availed to the soil (SA – 21% N) (2mks)
.....
.....
.....
.....
- (iii) Give a reason why nitrogenous fertilizer are used for top dressing and not at planting time (1mk)
.....

SECTION C (40 MKS)

Answer any **TWO** questions in spaces provided

- 26. (a) Describe the objectives of land tenure reforms (6mks)
- (b) Give four advantages of holding a (4mks)
 - (i) Title Deed
 - (ii) Describe the various field operations carried in the management of grass pasture Immediately after planting up to and including utilization (10mks)

27. Describe the production of dry beans under the following subheadings

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443/2

AGRICULTURE

Paper 2

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SECTION A (30 marks)

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

1 .Give **three** characteristics of nomadic pastorailsm ($1\frac{1}{2}$ mks)

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.....
.....

2. State **four** major routs of administering vaccine in a day old chick (2mkS)

.....
.....
.....

3. Name **four** larval stages of a liver fluke (2mks)

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.....
.....

4. Give **three** ways in which infectious diseases can be spread from one livestock to another within the farm ($1\frac{1}{2}$ mk)

.....
.....
.....

5. Give **three** diseases in poultry that are caused by virus ($1\frac{1}{2}$ mks)

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.....
.....

6. State **four** harmful effects of keds on livestock's (2mks)

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.....

7. State **four** animal related factors that determine the quality of silage eaten by dairy animals (2mks)

.....
.....
.....
.....

8. Name **two** feed additives that can be included in livestock diet (1mks)

.....
.....

9. State **three** ways of preparing the sow for farrowing ($1\frac{1}{2}$ mks)

.....
.....
.....

10. State **four** practices carried out on harvested fish before preservation (2mks)

.....
.....
.....
.....

11. State **four** factors that influence the quality of honey (2mks)

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.....
.....
.....

12 .state **four** reasons for culling boar (2mks)

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.....

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

.....
.....

14. State **four** condition that encourage egg eating in poultry production (2mk)

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.....
.....
.....

15. State **four** functions o f an ox plough in the farm (2mks)

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.....
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.....

16. Name **two** types of tractor engine cooling system (1mk)

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.....

17. State **four** condition that inhibit milk- let –down (2mks)

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.....
.....

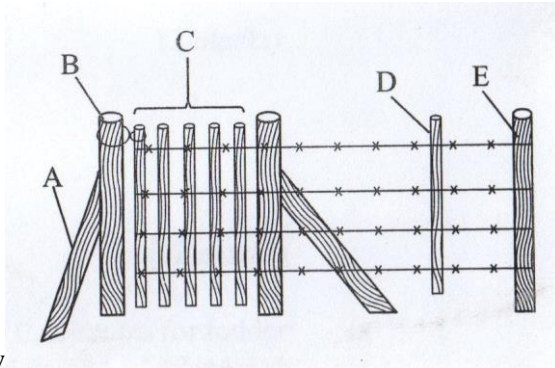
18. Name **three** methods of harnessing tractor power (1mks)

.....
.....
.....

SECTION B (20MARKS)

Answer **ALL** the question in the spaces provided.

19. Study the diagram of the fence shown below and answer the questions that



follow

(a) Name the type of fence (1mk)

.....

(b) Name the parts labeled A, B.D and F

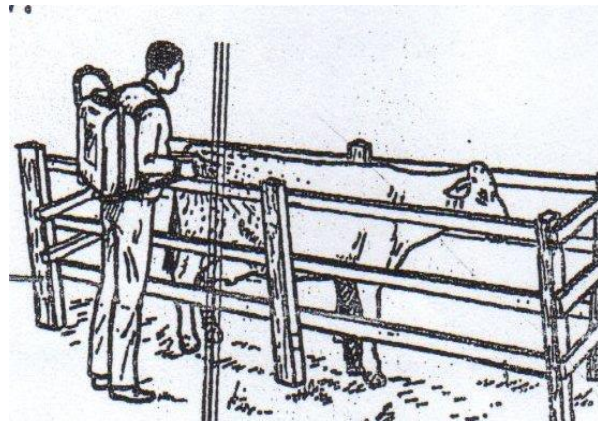
A.....D.....

B.....F.....

(c) Give the Function of part labeled D

.....

20 The diagram below illustrates a routine practice carried out in livestock production. Study it and answer the questions that follow



(a) Identify the routine practice shown above (1mks)

.....

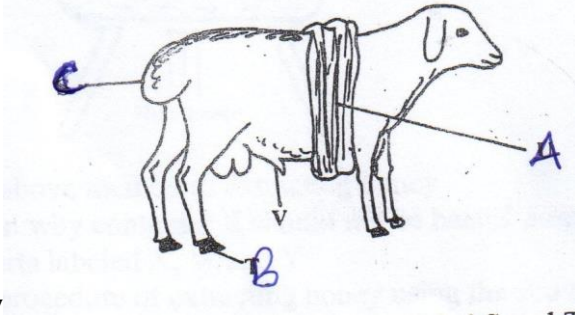
(b) State **two** limitation that the practice may have(2mks)

.....
.....

(a) Give **two** condition which may dictate the success achieved when using practice above (2mks)

.....

21 Study the diagram below and answer the questions that



follow

(a) Identify the structure labeled A on the diagram of a ram above (1mk)

.....

(b) Give a reason or carrying out the practice labeled A (1mk)

.....

(c) State the recommended age of carrying out the practice on art labeled C (1mk)

.....

(d) Name the practices carried out on part labeled B and C (2mks)

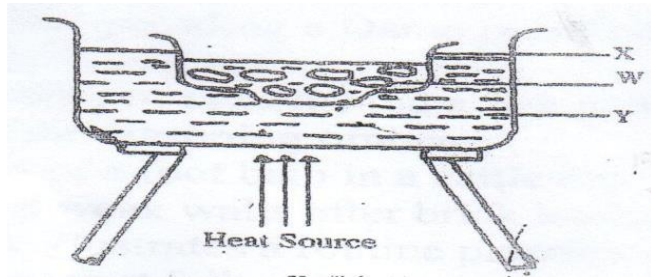
B.....

C.....

(e) Give the practices carried out on the part Labeled V when preparing the ram for tugging (1mk)

.....

22 Below is an illustration o method of extraction of honey from honey combs, study the diagram and answer the questions that follow



(a) Identify the above method of extracting honey (1mk)

.....

(b) Give a reason why container X should not be heated directly (1mk)

.....

(c) besides the above method state two other method of extracting honey (2mks)

.....

.....

SECTION C (40 marks)

Answer **any two** question on the spaces provided

23 (a) outline the procedures of castrating o bull using a burdizzo (6mks)

(b) Describe the lifecycle of two host tick (7mks)

(c) Explain the essentials of clean milk production (7mks)

24 (a) describe the Newcastle disease under the following sub heading

1. Causative agent(1mk)
2. Symptoms (7mks)
3. Control measures (4mks)

24(b) Discuss the factors that influence the amount of water taken by an animal (8mks)

25 (a) explain the advantages of artificial insemination in livestock production over bull (10mks)

(b) Discuss **five** management practices that are necessary for improving production in goats (10mks)

