***Name……………………………………………………………………….Index No………………………………………………………***

**443/2 Candidates Signature……………………………………………**

**AGRICULTURE Date……………………………………………………………………...**

**PAPER 2**

**2 HOURS**

**MOMALICHE EXAMINATION JUNE 2022**

**443/2**

**AGRICULTUE**

**PAPER 2**

**( Kenya Certificate of Secondary Education (K.C.S.E)**

**Instructions to candidates**

*Write your name and index number in the spaces provided above.*

*Sign and write the date of the examination in the spaces provided above.*

*This paper consist of three sections,* **A,B** *and* **C**. *Answer all questions in sections* ***A*** *and* **B** *and any* ***Two*** *questions from section* **C.**

*All answers be written in the spaces provided after every question.*

**For Examiners use only**

|  |  |  |  |
| --- | --- | --- | --- |
| **SECTION** | **QUESTIONS** | **MAXIMUM SCORE** | **CANDIDATES SCORE** |
| **A** |  | **30** |  |
| **B** |  | **20** |  |
| **C** |  | **20** |  |
|  |  | **20** |  |
|  | **TOTAL** | **90** |  |

**SECTION A ( 30 Marks)**

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

1 Study the table below fill in the blanks to show the term used to refer to parturition and young ones of the following animals? (2mks)

|  |  |  |
| --- | --- | --- |
| **Type of animal** | **Act of parturition** | **Term to refer to the young one** |
| Cattle | Calving | Calf |
| Goats | ………………………………… | ………………………………….. |
| pig | …………………………………. | ………………………………….. |

2 Name two tools used to trim overgrown hooves in sheep. (1mk)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….

3 Name three dual purpose breeds of sheep. ( 1 ½ mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….

4 State four symptoms of mastitis in cattle. (2mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

5 State two functions of the queen bee in a bee colony. (1mk)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………..

6 State four factors affecting the digestibility of a feed. (2mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….

7 State four harmful effects of ticks. (2mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….

8 State four conditions that may inhibit milk let-down during milking. (2mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….

9 Give three disadvantages of using a plunge –dip for tick control. (1 ½ mks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

10 Name two viral diseases that affect each of the following livestock.

(a) Cattle………………………………………………………………………………………………………………………. (1mk)

(b) Poultry…………………………………………………………………………………………………………………….. (1mk)

11 State four desirable factors to consider when siting a fish pond. (2mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….

12 Give three disadvantages of cross breeding in cattle. ( 1 ½ mks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

13 State four conditions that would encourage hens to eat eggs in poultry production. (2mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….

14 Outline four reasons for maintaining farm tools and equipment in good condition. (2mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….

15 State four nonpathogenic causes of livestock diseases. (2mks)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….

16 In the preparation of artificial colostrum, what is the role of each of the following?

(a) Caster oil ( ½ mk)

……………………………………………………………………………………………………………………………………………………………..

(b) Cod liver oil ( ½ mk)

……………………………………………………………………………………………………………………………………………………………..

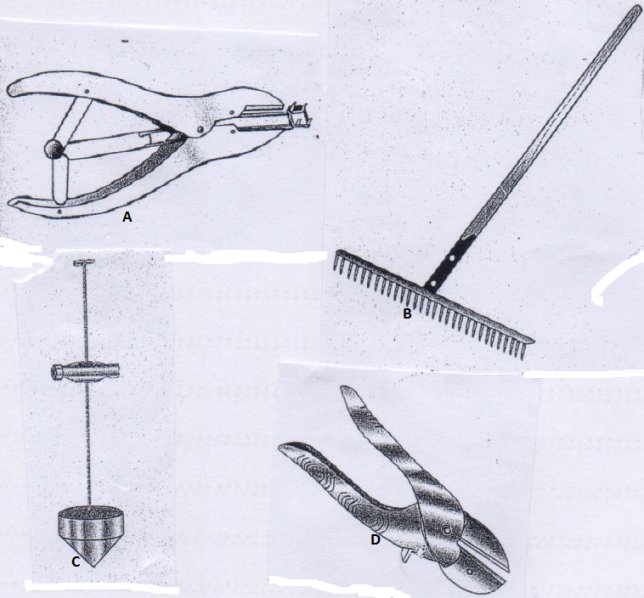
17 What is the importance of applying milking salve on teats of a lactating cow? ( ½ mk)

…………………………………………………………………………………………………………………………………………………………

**SECTION B (20 Marks)**

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

18 Below are illustrations of farm tools labeled **A,B,C** and **D**. Study them and answer questions that follow.



(a) Give the correct name of each of the tools illustrated above. (2mks)

**A**…………………………………………………………………………………………………………………………………………

**B**…………………………………………………………………………………………………………………………………………

**C**………………………………………………………………………………………………………………………………………..

**D**………………………………………………………………………………………………………………………………………….

(b) How is each of the tools **B** and **D** maintained? (1mk)

**B**…………………………………………………………………………………………………………………………………………….

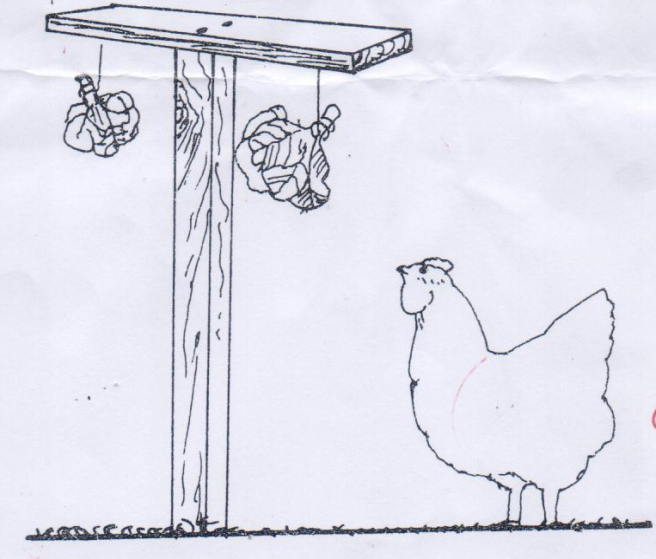
**D**…………………………………………………………………………………………………………………………………………….

(c ) State one proper use of each of the tools **A** and **C**. (2mks)

**A**……………………………………………………………………………………………………………………………………………………

**C**……………………………………………………………………………………………………………………………………………………

19 The diagram below illustrates a method of providing feed stuff to chicken in a chicken house. Study the diagram and answer the questions that follow.



(i) What type of feed stuff is illustrated in the diagram above? (1mk)

…………………………………………………………………………………………………………………………………………………………………

(ii) Give two reasons why the feed stuff should be suspended above the height of the chicken.(2mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………….

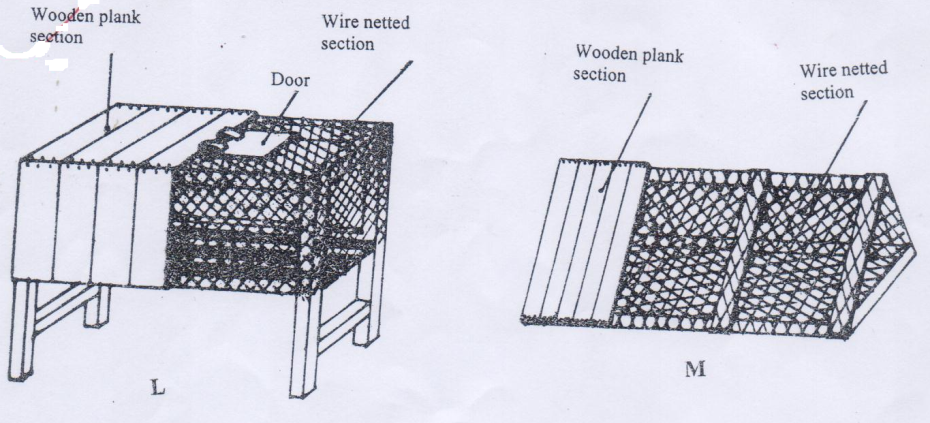
(iii) Apart from above practice, name one other practice that can be used in place of practice (ii) above. (1mk)

…………………………………………………………………………………………………………………………………………………………………

(iv) What other advantage of the practice named in (ii) in a deep litter house. (1mk)

…………………………………………………………………………………………………………………………………………………………………

20 The diagrams below illustrate two types of rabbit hutches labeled **L** and **M**. Study the diagrams and answer questions that follow.



(a) In which section of the hutches should the water and feed troughs be placed? (1mk)

………………………………………………………………………………………………………………………………………………………………….

(b) State one use of the wooden section of the hutch. (1mk)

…………………………………………………………………………………………………………………………………………………………………

(c ) What additional facility should be included inside the hutches for a doe? (1mk)

…………………………………………………………………………………………………………………………………………………………………

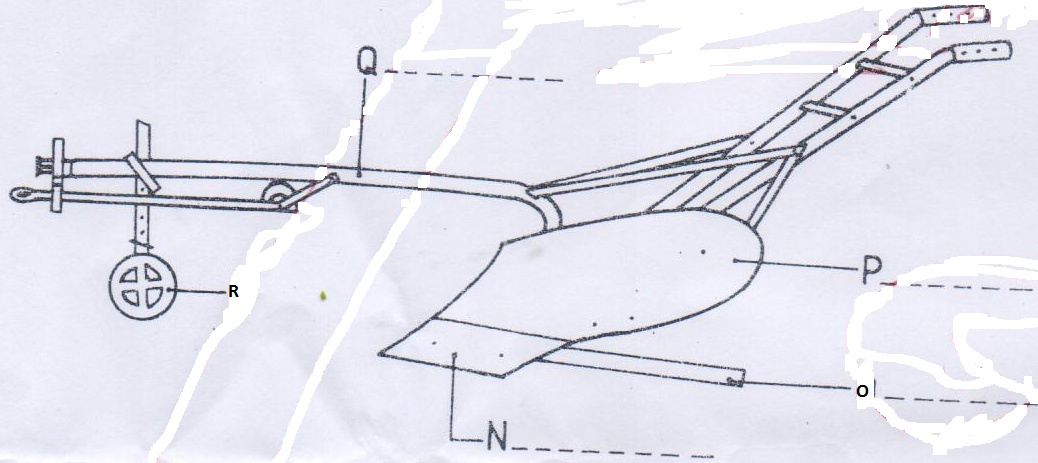
(d) Identify the type of floor shown in hutch **L** above. (1mk)

………………………………………………………………………………………………………………………………………………………………….

(e) Give one advantage of the type of floor illustrated in hutch **L** above. (1mk)

………………………………………………………………………………………………………………………………………………………………….

21 Below is a diagram of an Ox-plough. Study it and answer questions that follow.



(a) Identify the parts labeled **N,O,P** and **Q** on the diagram above. (2mks)

**N**……………………………………………………………………………………………………………………………………………

**O**……………………………………………………………………………………………………………………………………………

**P**…………………………………………………………………………………………………………………………………………….

**Q…**…………………………………………………………………………………………………………………………………………

(b) State one maintenance practice that should be carried out in each of the parts labeled N and R.

**N**………………………………………………………………………………………………………………………………… … (1mk)

**R**……………………………………………………………………………………………………………………………………..(1mk)

(c ) What adjustment should be carried out on the implement so as to reduce the depth of ploughing. (1mk)

……………………………………………………………………………………………………………………………………………………………….

**SECTION C (40 Marks)**

***Answer any two questions from this section. The answers be written in the spaces provided after every question.***

22 (a) Describe the process of processing honey using heat method. (6mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

(b) Describe Foot and Mouth disease under the following sub- headings;

(i) Causal organism. (1mk)

………………………………………………………………………………………………………………………………………………………………..

(ii) Animal attacked (1mk)

……………………………………………………………………………………………………………………………………………………………….

(iii) Five symptoms of attack. (5mks)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

(iv) three control measures. (3mks)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………..

(c ) Outline four ways through which power is made available from a tractor. (4mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

23 (a) Explain six requirements of a good calf pen. (6mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………… ………………………………………………………………………………………………………………………………………………………………..

(b) (i) Give four reasons for steaming up a dairy cow. (4mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

(ii) Explain the management practices carried out on a dairy calf from birth and immediately after birth. (4mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………..

(c ) Outline six signs of round worms (Ascaris spp) infestation in cattle. (6mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………… …………………………………………………………………………………………………………………………………………………………………

24 (a) Describe the process of egg formation in a chicken up to the point of lay. (10mks)

………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………… …………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

(b) State the difference between four stroke cycle and two stroke cycle engine. (4mks)

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

(c ) Describe the process of digestion in the rumen. (4mks)

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………..