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

Candidate’s Signature:……………………………….

Date: ……………….……………….…

**443/2**

**AGRICULTURE**

**PAPER 2**

**JULY/AUGUST 2014**

**TIME: 2 HOURS**

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

**443/2**

**Agriculture**

**Paper 2**

**2 hours**

**INSTRUCTIONS TO CANDIDATES:**

* *Write your* ***name*** *and* ***index number*** *in the spaces provided.*
* ***Sign*** *and* ***write the date*** *of examination in the spaces provided*
* *This paper consists of* ***three*** *section* ***A,B*** *and* ***C***
* *Answer all questions in section* ***A*** *and* ***B***
* *Answer any* ***two*** *questions in section* ***C***
* *All the questions should answered in the spaces provided*

**FOR EXAMINERS USE ONLY**

|  |  |  |  |
| --- | --- | --- | --- |
| **SECTION** | **QUESTIONS** | **MAX SCORE** | **CANDIDATES SCORE** |
| **A** | **1-17** | **30** |  |
| **B** | **18-21** | **20** |  |
| **C**  **TOTAL** | **22-24** | **20** |  |
| **20** |  |
| **90** |  |

*This paper consists of 8 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.*

**SECTION A (30 MARKS)**

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

1. Mention **two** examples of meat goats in Kenya (1mk)

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

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

1. Give the functions of the following parts in the male reproductive system of a goat
2. Testes (1mk)

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

1. Urethra (1mk)

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

1. State **three** factors that affect digestibility of a feed in dairy animals (1 ½ mks)

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

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

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1. State **three** factors to consider when selecting eggs for sale (1 ½ mks)

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1. Give **two** uses of a gear box in a tractor (2mks)

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

1. Differentiate between outcrossing and cross breeding as used in livestock production (2mks)

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

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1. State **three** reasons for weighing livestock at weaning stage (1 ½ mks)

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

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

1. State **four** functions of vitamins (2mks)

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

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

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

1. State **two** advantages of using wood as a construction material (2mks)

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

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

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

1. Mention **four** safety precautionary measures when using electric power in the farm (2mks)

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

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

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

1. Name **two** tractor drawn implements that are attached to the draw bar (1mk)

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

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

1. Give **two** uses of footbath in a plunge dip (2mks)

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

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

1. State **two** possible channels through which Kenya farmers can market their livestock (2mks)

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

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

1. State **two** disadvantages of using hurricane lamps and lanterns as providers of heat in a brooder (2mks)

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

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

1. Give **four** ways of stimulating milk let down in a dairy cow (2mks)

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

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1. State **two** functions of addictives in silage making (2mks)

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

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

1. State the uses of the following tools and equipments (1 ½ mks)
2. Chipping harmer

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

1. Tinsnip

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

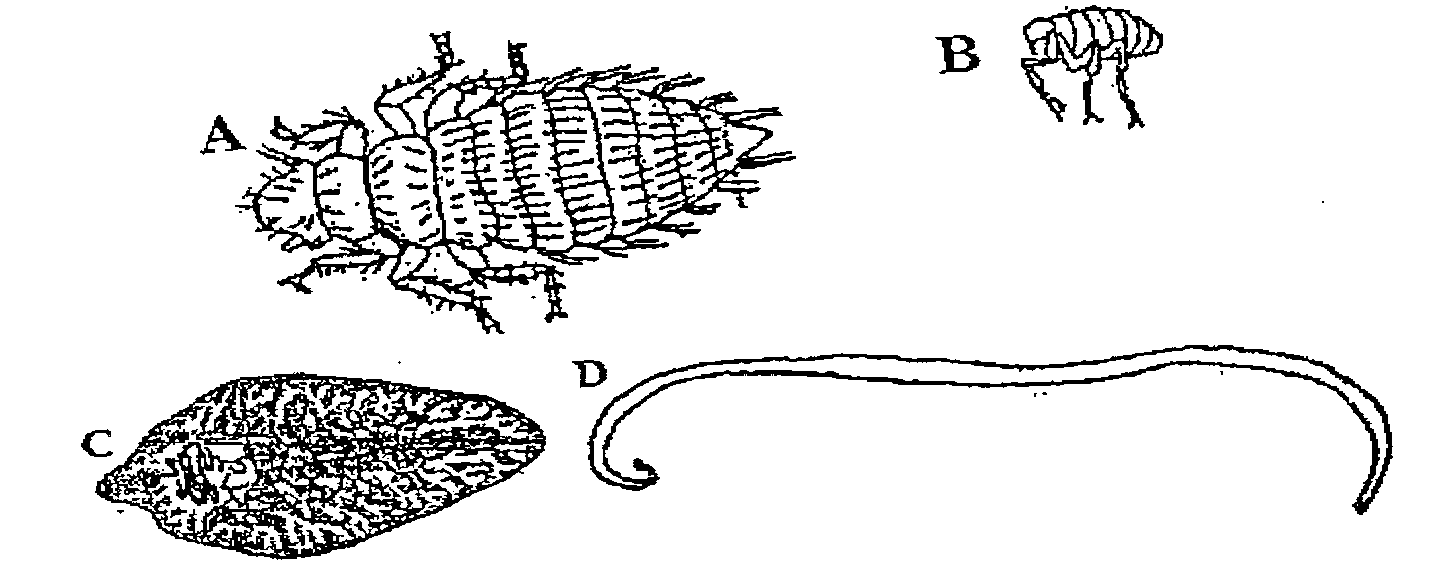
1. Router

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

**SECTION B (20 MARKS)**

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

1. **(a)** Identify each of the parasites of livestock shown below,  **(2mks)**

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**(b)** What is the difference between parasites **A** and **B** and parasites **C** and **D? (lmk)**

**A**……………………………………………..

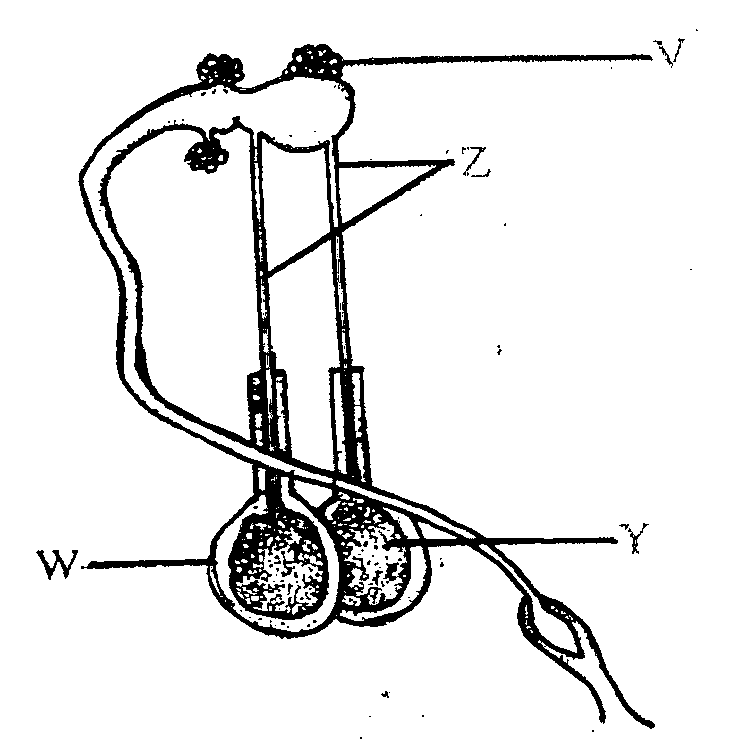
**B**……………………………………………..

**C**……………………………………………..

**D**……………………………………………..

**(c)** Suggest an effective control measure of the parasite labeled **C (1 mk)**

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

1. The diagram below shows the male reproductive organ in cattle. Study it and answer the questions that follow
2. Name the parts labeled **Z** and **W** (2mks)

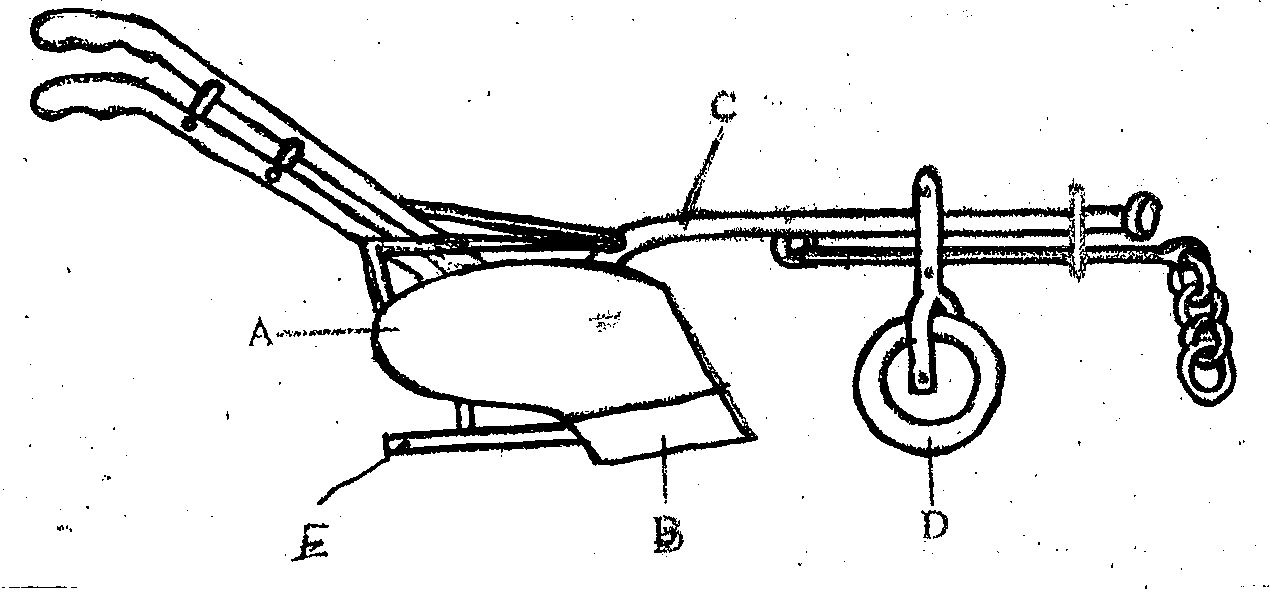
**Z** ………………………………………………………………………………

**W** ………………………………………………………………………………

(b) State **two** functions of the part labeled **Y** (2mks)

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

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

1.  Below is a diagram of a farm implement

**A**

**E**

**B**

**D**

1. Identify the implement ( ½ mk)

…………………………………………………………………………………………

1. Label the parts marked **A,B,C,D** and **E**  (2 ½ mks)

**A**……………………………………………………

**B**……………………………………………………

**C**……………………………………………………

**D**……………………………………………………

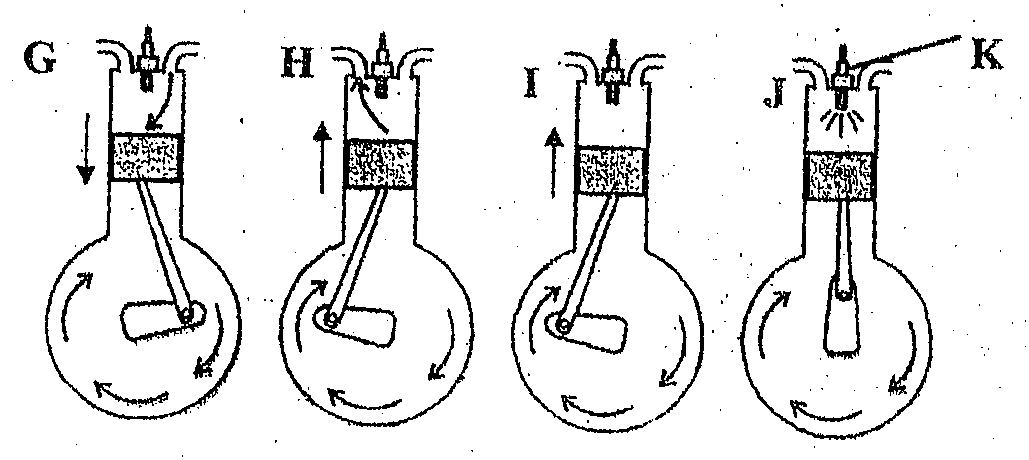
**E** ……………………………………………………

1. State the functions of the parts labeled **C** and **E** (2mks)

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

1. A farmer wants to prepare a ration for layers containing 18% DCP using maize germ 20% DCP and wheat bran 10% DCP.
2. Calculate using pearson’s square method the amount of each feed-stuff needed in order to prepare 100kg of feed (5mks)
3. Name **one** other method the farmer can use to compute the ratio (1mk)

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

1. The diagrams below illustrate a **four** stroke cycle engine system. Study it and answer the questions that follow
2. State the **four** stages of the **four** stroke cycle engine **G,H,I** and **J** (2mks)

**G**……………………………………………………………………………………..

**H**……………………………………………………………………………………..

**I**………………………………………………………………………………………

**J**………………………………………………………………………………………

1. Mention **two** disadvantages of a four stroke engine (2mks)

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

1. What is the function of part **K** (1mk)

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

**SECTION C**

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

1. (a) Discuss the importance of keeping livestock healthy (8mks)

(b) State the daily maintenance and servicing of a tractor (10mks)

(c) Explain **two** maintenance practices carried out in a fish pond (2mks)

1. (a) Describe the structural requirements to be considered when constructing a calf pen (10mks)
2. Describe mastitis disease in dairy cattle under the following subheadings;
3. Two causal organisms (2mks)
4. Predisposing factors (8mks)
5. (a) Explain the factors to consider while siting farm structures (10mks)
6. Describe the process of training a calf to drink milk from a bucket (5mks)
7. Discuss the reasons that would make a farmer prefer a disc plough over a mouldboard

plough (5mks)

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