**Name: …………………………………………………………… Index no ………....................................**

**School: ………………………………………………………….. Candidate’s sign…….....…...…........…**

**Date: ……………………………………………………………**

**443/2**

**AGRICULTURE**

**PAPER 2**

**TIME: 2 HOURS**

**MARCH/APRIL 2014**

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

**Agriculture**

**Paper 2**

**INSTRUCTIONS TO CANDIDATES:**

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

**For Examiner’s Use Only**

|  |  |  |  |
| --- | --- | --- | --- |
| **SECTION** | **QUESTION** | **MAXIMUM****SCORE** | **CANDIDATE’S SCORE** |
| A | 1 - 20 | 30 |  |
| B | 21 - 24 | 20 |  |
|  C | 25-27 | 40 |  |
|  |  |  |
|  | **TOTAL SCORE** | **90** |  |

*This paper consists of 9 printed pages. Candidates should check to ascertain that all the pages are printed as indicated and no questions are missing.*

**SECTION A (30 MARKS)**

**Answer all questions in this section**

1. Give four structures necessary for handling dairy animals (2mks)

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2. Name **four** methods of dehorning cattle (2mks)

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3. Give **two** reasons for weighing livestock at weaning stage (1mk)

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4. State **two** factors that determine the type of materials to use in building farm structures (1mk)

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5. State **two** functions of calcium in animal nutrition (1mk)

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6. Give **two** disadvantages of using wood/charcoal as a source of energy on the farm (1mk)

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7. Name **two** non-pathogenic diseases of livestock (1mk)

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8. State **two** practices that can assist in avoiding flavors in the milk (1mk)

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9. Name any **four** tractor systems (2mks)

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10. Give **two** reasons why feed additives are important in livestock diet (1mk)

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11. State **four** reasons for breeding in cattle (2mks)

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12. State **two** advantages of dry-cow therapy (1mk)

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

13. Name the vectors of the following livestock diseases (3mks)

 (a) East Coast fever……………………………….

 (b) Rift Valley fever……………………………….

 (c) Trypanosomiasis……………………………….

14. Why is drenching alone not an effective method of controlling internal parasites in livestock (1mk)

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

15. Give **four** methods of controlling cannibalism in a flock of layers in a deep litter system (2mks)

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16. State any **two** reasons why a farmer should use concrete floors for dairy sheds (1mk)

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17. Outline any **four** daily maintenance services carried out on a tractor (2mks)

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18. (a) Define the term “milk let down” (1mk)

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(b) State **four** conditions that may hinder milk let down (2mks)

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19. State any **two** maintenance practices carried out on a panga (1mk)

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20. Give **one** reason why it is advisable to cool milk immediately after milking (1mk)

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**SECTION B (20MARKS)**

**Answer all the questions in this section**

21. Diagram **G**,**H** and **J** illustrates some livestock parasites



**J**

**H**

**G**

 (a) Identify parasites **G,H** and **J** (1 ½ mks)

 **G**……………………………………….

 **H**……………………………………….

 **J**………………………………………..

 (b) Name the parts of the host body where parasites **G** and **J** are found (1mk)

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

 (c) Name the intermediate host of parasites **G** and **J** (1mk)

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

(d) Outline **four** symptoms of attack in livestock by parasite J (2mks)

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22. Study the diagram of an ox-drawn plough below and answer the questions that follow



**MS**

**LS**

**TS**

**S**

 (a) Name the parts labeled **T**,**M**, **L** and **S** (2mks)

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 (b) State **three** maintenance practices carried out on the above implement ( ½ mk)

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 (c) State the function of the parts labeled **T** and **S** (1mk)

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

 (d) What adjustment should be carried out on the implement so as to reduce the depth of

Ploughing ( ½ mk)

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

23. The following diagram shows parts of a roof. Study it carefully and answer the questions that follow



**P**

**R**

**O**

**Q**

 (a) Name the parts labelled **O,P,Q** and **R** (2mks)

 **R**……………………………………….

 **O**……………………………………..

 **P**……………………………………….

 **Q**………………………………………

 (b) State the function of the part labeled **O** and **R** (1mk)

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(c) Give **three** reasons for treating timber before use in the construction of farm structures ( 1 ½ mk)

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24. The following diagram shows an activity which is carried out by a poultry farmer. Study it carefully and answer the questions that follow

**Egg**

**Torch**

 (i) (a) Identify the equipment being used (1mk)

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 (b) State two uses of the above equipment in poultry production (1mk)

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 (c) Outline three qualities of good eggs for incubation (1 ½ mk)

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 (ii) Below is an illustration showing one of the four strokes of a four stroke cycle engine.

 Study it carefully and answer the questions that follow

**Spark plug**



**V**

**T**

**Crank case**

**Inlet valve**

**Exhaust valve**

 (a) Identify the stroke illustrated above ( ½ mk)

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

 (b) Name the parts labeled **T** and **U** (1mk)

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

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

 (c) Identify the material contained in the crankcase ( ½ mk)

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

**SECTION C (40 MARKS)**

**Answer any two question**

 25 (a) State and explain five factors that influence the power of the output of draught animals (10mks)

(b) Discuss the factors that farmers should consider when constructing a poultry deep litter house (10mks)

26. (a) Describe the maintenance practices carried out on a tractor battery (10mks)

(b) Describe the management of a dairy heifer calf from birth until it is mature for first service (10mks)

27. (a) State four advantages of the long stroth beehive (4mks)

 (b) Describe the procedure of processing wax (8mks)

 (c) Outline the uses of farm fences (8mks)