**TERM 2 - 2023**

**AGRICULTURE**

**PAPER 2**

**FORM FOUR (4)**

**Time: 2 Hours**

**Name: …………………………………………………………. Adm No: ……………….**

**School: ……………………………………………………….. Class: …………………..**

**Signature: …………………………………………………….. Date: …………………...**

**INSTRUCTIONS TO CANDIDATES:**

* *Write your* ***name*** *and* ***index number*** *in the spaces provided.*
* *Sign and write the date in the spaces provided above*
* *This paper consists of three section* ***A, B*** *and* ***C***
* *Answer* ***all*** *the questions in section* ***A*** *and* ***B***
* *Answer any* ***two*** *questions in section* ***C.***
* *Answers should be written in the spaces provided in this booklet.*

For Examiner’s Use Only:

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

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

**SECTION A  (30MARKS)     *Answer all questions in this section***

1. Name **four** dairy cattle breeds reared in Kenya. (2mks)

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2. Give **four** reasons for castrating male goats. (2mks)

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3. Give **two** parasites of cattle which are also disease vectors (1mk)

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4. List **two** possible causes of over heating in a tractor engine (1mk)

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

5. Mention the use of the following tools. (2mks)

 i) Dibber………………………………………………………………………………………….

 ii) Spokeshave …………………………………………………………………………………...

 iii) Tinsnips……………………………………………………………………………………….

 iv) Burdizzo ………………………………………………………………………………………

6. State the importance of the following in livestock nutrition:

 i) Water (1mk)

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

 ii) Vitamin A (1mk)

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

7. State **four** management practices that should be carried on a fish pond in order to obtain maximum fish production. (2mks) ………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

8.a) State **two** reasons for washing the udder of a cow with warm water before milking. (1mk)

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

b) Name the hormone that causes each of the following in dairy cows:.

 i) milk let down. …………………………………………………………………… (1mk)

 ii) lactogenesis …………………………………………………………………… (1mk)

9. Differentiate between ‘breed’ of animal and ‘type’ of animal. (2mks)

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

10. Name **two** livestock diseases that are spread through natural mating. (1mk)

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

11. Name the compartment of the ruminant stomach where microbial digestion takes place. (1mk)

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

12. List **four** precautions that should be taken when using workshop tools and equipment. (2mks)

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13. State **four** methods of increasing the depth of penetration of a disc harrow. (2mks)

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14. List **four** factors considered when formulating livestock ration. (2mks)

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1. State **four** conditions that necessitate the handling of farm animals (2mks)

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

16. State **four** abnormalities of eggs that can be detected during egg candling. (2mks)

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17. List **two** events occur during induction stroke in a four stroke engine .(1mk)

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**SECTION B (20MARKS)**

***Answer all the questions in this section.***

18.i) the diagram below shows a tractor drawn implement.



 a) Name the implement…………………………………………………………………. (1mk)

 b) Give **two** uses of the implement above (2mks

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

c) State **three** maintenance practices carried out on the above implement. (3mks)

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

ii) Below is an illustration of a farm equipment. Study it and answer questions that follow



 a) Identify the farm equipment illustrated above (1mk)

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

 b) What is the use of the equipment (1mk)

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

c) Name the parts labelled **W, X** and **Y** (3mks)

 W……………………………………………………………………………………...

 X……………………………………………………………………………………...

 Y……………………………………………………………………………………..

d) What is the function of **Y** on the equipment (1mk)

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

1. Identify the above diagram (1mk)

…………………………………………………………………

ii) Name the parts labelled **A** and **B** (2mks)

 A………………………………………………………………………………

 B……………………………………………………..…………………………

20. A ration containing 18% protein is to be made from maize and sunflower cake. Given

 that maize contains 7% protein, and sunflower seed cake 34% protein. Use Pearson square

 method to calculate the value of feedstuffs to be used to prepare 100kgs of the feed (3mks)

 ii) A part from Pearson square method, name **two** other methods that can be used to formulate

 feed ration (2mks)

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

**10SECTION C (40MARKS)**

***Answer any two questions in this section in the spaces provided after question 23***

1. a) Name **four** notifiable diseases in livestock (4mks)

 b) Discuss **four** ways in which livestock disease are spread in the farm (4mks)

 c) Describe the methods of controlling livestock disease giving an example of different disease

 in each case (12mks)

1. a) Describe the management of day old chicks in a deep litter system from preparation of brooder up to eight (8) weeks old (10mks)

(b) Describe Coccidiosis disease under the following sub- headings.

1. Animals attacked (2mks)
2. Causal organism (1mk)
3. Symptoms (4mks)
4. Control measures (3mks)
5. a) Explain the factors that influence the power output of farm animals (8mks)

 b) State the importance of farm fences (12mks)