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

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

**Date: ……………………………………………….. Class…………………………………….**

**443/2**

**AGRICULTURE**

**PAPER 2**

**21ST MARCH 2018**

**TIME: 2 HOURS**

 **MOI HIGH SCHOOL-KABARAK**

 **FORM FOUR MOKASA I MOCK**

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

 **Agriculture**

 **Paper 2**

**INSTRUCTIONS TO CANDIDATES:**

* *Write your* ***name, index number,******school*** *and* ***admission number*** *in the spaces provided.*
* *Sign and write the date in the spaces provided above.*
* *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 |  1-19 | 30 |  |
| B | 20-23 | 20 |  |
| C |  | 20 |  |
|  | 20 |  |
|  | **TOTAL** | **90** |  |

*This paper consists of 12 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.*

 **SECTION A (30MARKS)**

1. State **four** factors that determine the quality of honey. (2mks)

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

1. Name **two** types of bacterial diseases in cattle that are controlled by the administration of blanthax vaccine. (1mk)

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

1. Name the component on a tractor used for each of the following purposes. (2mks)
2. Checking the level of oil in the sump.

…………………………………………………………………………………………

1. Connecting and disconnecting the drive shaft to or from the engine.

…………………………………………………………………………………………

1. Regulating the temperature of water in the cooling system.

…………………………………………………………………………………………

1. Stepping up the battery voltage from 12 volts to about 6000volts

…………………………………………………………………………………………

1. State **four** reasons for seasoning timber before using it for construction. (2mks)

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

1. State **two** ways in which barbed wire fence may be reinforced in the farm. (1mk)

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

1. Name the intermediate host of the following parasites. (1mk)
2. Tapeworm

…………………………………………………………………………………………

1. Liverfluke

…………………………………………………………………………………………

1. State **three** advantages of using thatch as a roofing material in farm structures. $(1\frac{1}{2}mks)$

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

1. State **four** precautions observed when using workshop tools and equipment. (2mks)

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

1. Name **two** hormones that influence milk let down. (1mk)

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

1. State **four** conditions a farmer would prefer to use an ox-cart instead of a tractor drawn trailer. (2mks)

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

1. Give **two** ways in which proper nutrition helps to control livestock diseases. (1mk)

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

1. Give the meaning of the following terms as used in livestock breeding. (2mks)
2. Progeny testing

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

1. Heterosis

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

1. Name **four** implements that are operated by the tractor P.T.O shaft. (2mks)

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

1. State **four** reasons for castration in pig production. (2mks)

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

1. State **four** characteristics of roughage livestock feeds. (2mks)

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

1. Give **two** reasons why it is necessary to have guard rails in a farrowing pen. (1mk)

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

1. Give **four** advantages of using a disc plough over a mouldboard plough in primary cultivation. (2mks)

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

1. State **four** characteristics of a dairy cow. (2mks)

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

1. Give **one** reason as to why it is important to understand the life cycle of parasites. $(\frac{1}{2}mk)$

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

 **SECTION (20MARKS)**

1. Study the illustration showing a livestock management practice and answer the questions that follow.

****

1. Identify the livestock management practice illustrated above. (1mk)

………………………………………………………………………………………………

1. Name the tool being used in carrying out the practice illustrated above. (1mk)

………………………………………………………………………………………………

1. Describe the procedure of carrying out the above practice. (3mks)

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

1. The illustration below shows a cow suffering from a disease.Study it and answer the questions that follow.



1. Identify the disease. (1mk)

………………………………………………………………………………………………

1. State the cause of the disease illustrated above. (1mk)

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

1. Give **three** symptoms of the disease the animal is suffering from. (3mks)

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

1. The illustration below shows a disc plough.Study it and answer the questions that follow.

****

1. Name the partslabelled E, F, G and H. (2mks)

E……………………………………………………………………………………………

F……………………………………………………………………………………………

G……………………………………………………………………………………………

H……………………………………………………………………………………………

1. Give the function of each of the parts labelled F and H. (2mks)

F………………………………………………………………………………………….…………………………………………………………………………………………………

H……………………………………………………………………………………………

1. State one adjustment that can be carried out on the plough to decrease the ploughing depth. (1mk)

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

1. Study the illustrations below and answer the questons that follow.
2. Explain the behaviour of the chicks in the diagrams A, B, C and D. (2mks)

A……………………………………………………………………………………………………………………………………………………………………………………………

B………………………………………………………………………………………….…………………………………………………………………………………………………

C………………………………………………………………………………………….…………………………………………………………………………………………………

D………………………………………………………………………………………….…………………………………………………………………………………………………

1. Give **one** reason why dim light is recommended in a brooder. (1mk)

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

1. State **two** advantages of artificial brooding. (2mks)

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

 **SECTI ON C (40MARKS)**

1. a) State and explain any **five** pre-disposing factors of livestock diseases. (10mks)

 b) State **six** differences between digestion in Ruminants and non-ruminants. (6mks)

 c) Using the Pearsons square method, compute a 300kg ration with 25% DCP from wheat

 which contains 15% DCP and sunflower seedcake containing 30% DCP. (4mks)

1. a) Describe t*rypanosomiasis* (nagana) under the following sub headings.

 i) Animals attacked (2mks)

 ii) Causal organism and the vector (2mks)

 iii) Symptoms (4mks)

 iv) Control measures (2mks)

b) State **six** structural requirements of a calf pen. (6mks)

c) State **four** main components of a tractor fuel system and a function for each. (4mks)

1. a) Describe **ten** practices that a dairy farmer must carry out to achieve clean milk production. (10mks)

 b) Outline **six** causes of stress to a flock of layers. (6mks)

 c) State **four** disadvantages of inbreeding in livestock. (4mks)

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

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

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

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

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

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