**NAME ……………………………………..……………….. DATE …………………………………**

**INDEX NO. …………….……….……..…..… CANDIDATE’S SIGNATURE …………..…..………..**

443/2

AGRICULTURE

PAPER 2 (THEORY)

TIME: 2 HOURS

**MAKINDU DISTRICT INTER – SECONDARY SCHOOLS EXAMINATION**

*Pre - Kenya Certificate of Secondary Education*

443/2

AGRICULTURE

PAPER 2 (THEORY)

JULY/AUGUST 2014

TIME: 2 HOURS

**INSTRUCTIONS TO CANDIDATES**

1. Write your name and index number in the spaces provided above.
2. This paper has **THREE** sections: A , B and C
3. Answer **ALL** the questions in section A and B and any **TWO** questions in section C
4. ALL answers **MUST** be written in the spaces provided.
5. Do not remove any pages from this booklet.
6. This paper consists of 11 printed pages. Candidates should check to ensure that all pages are printed as indicated and no questions are missing

**FOR EXAMINER’S USE ONLY**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Questions** | **Maximum score** | **Candidate’s score** |
| A | **01 - 23** | **30 marks** |  |
| B | **24 - 27** | **20 marks** |  |
| C | **28 - 30** | **40 marks** |  |
|  | | **Total score** |  |

© 2014, Makindu district Inter – Secondary Schools Examination

443/2

Agriculture

Paper 2 (theory)

**SECTION A (30 MARKS)**

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

1. Name the breed of goat that produces high quality wool. (1mark)

................................................................................................................................................................................................................................................................................................................................................

1. State two advantages of using wood in the construction of a farm building (1mark)

................................................................................................................................................................................................................................................................................................................................................

1. State two functional differences between petrol and diesel engines. (2marks)

|  |  |
| --- | --- |
| Petrol | Diesel engine |
|  |  |

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

................................................................................................................................................................................................................................................................................................................................................

1. Liver fluke

................................................................................................................................................................................................................................................................................................................................................

1. Differentiate between (1mark)
2. Drift lambing

................................................................................................................................................................................................................................................................................................................................................

1. Pen lambing

................................................................................................................................................................................................................................................................................................................................................

1. Give two reasons why the walls of the dairy shed should be white washed instead of painting with water or oil paints. (1 marks)

................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. Mention four pre-disposing factors of scours in calves. (2marks)

................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. Outline three reasons why calves should be fed on colostrums. (1½ marks)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. State two functions of a queen bee in a colony (1mark)

................................................................................................................................................................................................................................................................................................................................................

1. List two groups of vitamin as applied to livestock nutrition. (1mark)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. Give four advantages of using a spray in tick control in livestock. (2 mark)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

........................................................................................................................................................................

1. Give three importance of flushing in sheep management. (1½ marks)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. State three adjustments that should be carried out on a tractor-mounted mould board plough in preparation for ploughing (1½ marks)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. State two demerits of live fences. (1mark)

................................................................................................................................................................................................................................................................................................................................................

1. Give two ideal conformation features of beef cattle (1mark)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. State three factors that dictate livestock distribution in Kenya. (1½ marks)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. Name three reasons that necessitate handling of livestock in the farm. (1½ marks)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. List three non chemical control measures in livestock production. (1½ marks)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. Under what condition would a farmer prefer to use an ox- cart instead of a tractor-drawn trailer? Give three reasons (1½ marks)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. State four grades into which Kenya Meat Commission may classify the carcasses (2marks)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

........................................................................................................................................................................

1. Why is it not recommended to use saw dust in an incubator (1 marks)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. List two tools used in closed castration (1mark)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

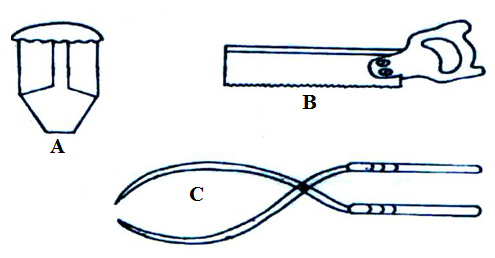
1. State four qualities of good creep feed. (2marks)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

........................................................................................................................................................................

**SECTION B (20 MARKS)**

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

1. The diagram below represents farm tools.
2. Identify the tools labeled A and B (1mark)

A

........................................................................................................................................................................

B

........................................................................................................................................................................

1. Give one use of each tools mentioned in (i) above. (2marks)

A

........................................................................................................................................................................B

........................................................................................................................................................................

1. Give the two maintenance practices which should be carried out on tool C (2marks)

................................................................................................................................................................................................................................................................................................................................................

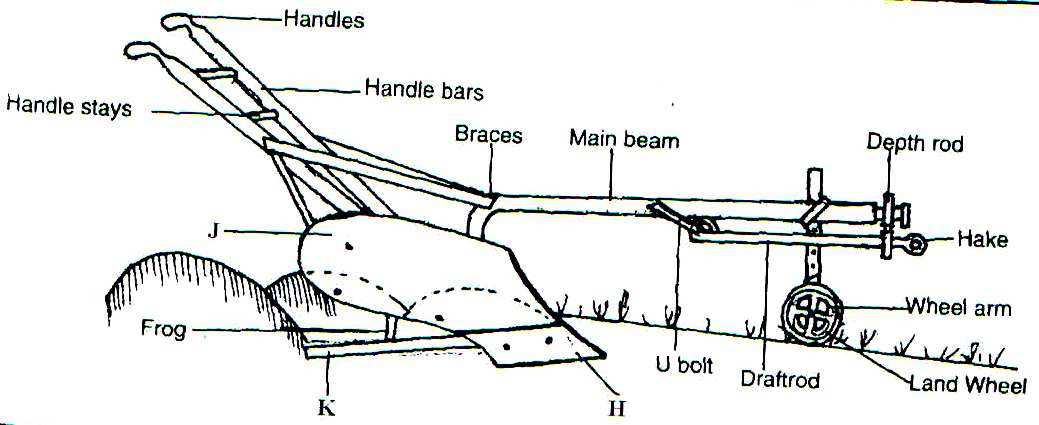
1. A farmer in Makueni County owns 16 milking cows. In addition to feeding these animals with nippier grass, the farmer prepares home mixed ratio in them. During this dry season, the farmer has decided to mix 600kg of the ratio using oats DCP 40% and sim sim cake DCP 60% using the Rearsons square method.
2. Determine the quantities of each feed the farmer will need to make a ratio containing 20% DCP for the animals. (4 marks)

................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. State two factors affecting feed digestibility. (1mark)

........................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. The diagram below shows an animal drawn implement. Use it to answer the following questions



1. Label parts

H

........................................................................................................................................................................

J

........................................................................................................................................................................

K (1½ marks)

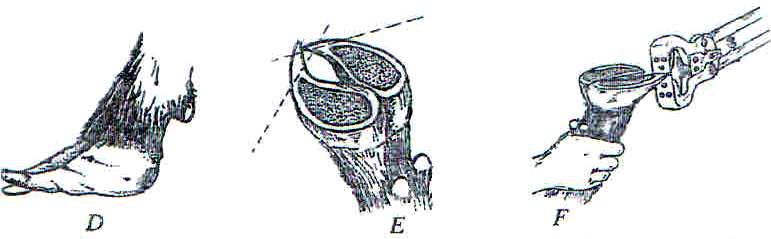
........................................................................................................................................................................

1. Name the part that requires regular sharpening (1½ marks)

....................................................................................................................................................................................................................................................................................

1. State three advantages of using animal power (1½ marks)

.......................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

1. Below are illustrations of animal hooves and activity being done

i)

1. What activity is going on in diagram F (1mark)

................................................................................................................................................................................................................................................................................................................................................

1. Which of the above hooves is likely to predispose foot rot infection? (1mark)

................................................................................................................................................................................................................................................................................................................................................

1. Name an appropriate tool for carrying out the above activity (1mark)

................................................................................................................................................................................................................................................................................................................................................

1. Other than protecting animals from foot rot give another one reason for carrying out the activity. (1mark)

................................................................................................................................................................................................................................................................................................................................................

ii Give three reasons for seasoning timber before use (1½ marks)

................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

**SECTION C (40 MARKS)**

Answer ***only two*** questions from this section in the spaces provided

1. a) Describe the features of ideal calf pen. (10marks)

b) Distinguish between cropping and harvesting as used in fish farming (2marks)

c) Describe the maintenance practices on a fish pond or describe management practices that would ensure maximum fish harvest from a fish pond. (8marks)

1. a) Discuss coccidiosis disease under the following headings
2. Causal organism (1mark)
3. Livestock species attacked (4marks)
4. Symptoms of attack (4marks)
5. Control measures. (3marks)

b) Describe the procedure of obtaining clean milk from a cow (10marks)

1. a)

i) Describe the life cycle of a two host tick (6marks)

1. Describe digestion in a rumen of ruminant (8marks)
2. Explain three methods of acaricide application (6marks)

................................................................................................................................................................................................................................................................................................................................................

................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................

................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................

................................................................................................................................................................................................................................................................................................................................................

................................................................................................................................................................................................................................................................................................................................................

................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................

................................................................................................................................................................................................................................................................................................................................................

................................................................................................................................................................................................................................................................................................................................................

................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................

................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................

................................................................................................................................................................................................................................................................................................................................................ ................................................................................................................................................................................................................................................................................................................................................