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

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

443/2

AGRICULTURE

PAPER 2 (THEORY)

TIME: 2 HOURS

**SUKELLEMO - JOINT EVALUATION TEST, 2020**

*Kenya Certificate of Secondary Education*

443/2

AGRICULTURE

PAPER 2 (THEORY)

DECEMBER, 2020

TIME: 2 HOURS

**INSTRUCTIONS TO CANDIDATES**

1. Write your name and ADM 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 10 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 - 16** | **30 marks** |  |
| B | **17 - 20** | **20 marks** |  |
| C | **21 - 23** | **40 marks** |  |
|  | **Total score** |  |

**SECTION A (30MARKS)**

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

1. a) List **two** dairy goat breeds (1mk)

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

 b) Give **two** advantages of keeping a Jersey cow instead of a Friesian. (1mk)

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

1. Give **two** importance of keeping health records in a farm. (1mk)

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

1. a) What is pica as used in livestock production. (½mk)

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

 b) State **three** importance of keeping livestock healthy. (1½mks)

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

4. Name an intermediate host for each of the following parasites.

 i) Tapeworm (*Taenia solium*) (½mk)

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

 ii) Liver Fluke (*Fasciola hepatica*) (½mk)

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

1. a) Name the type of breeding system represented below. (½mk)

Ayrshire Sire **x** Boran Dam F1 Heifer x Hereford

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

 b) Outline **two** characteristics of livestock that are used in mass selection. (1mk)

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

1. State **four** management practices that would ensure maximum harvest of fish from a fish pond. (2mks)

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

1. Distinguish between crutching and ringing as used in livestock production. (1mk)

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

8. Give **four** reasons why young Lambs should be docked (2mks)

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

1. a) State **three** disadvantages of natural incubation in poultry production (1½mks)

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

 b) Why is it necessary to supplement domestic poultry diet with grit. (½mk)

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

1. Name **four** properties of a good vaccine (2mks)

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

1. State **four** factors considered when formulating a livestock ration. (2mks)

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

1. Name **two** Larval developmental stages of liver fluke that occur outside the intermediate host. (1mk)

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

1. List **four** methods of preserving fish after harvesting. (2mks)

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

1. Mention **three** ways that indigenous livestock farmers use to improve their cattle. (1½mks)

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

15. Differentiate between

 i) Gilt and Sow (1mk)

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

 ii) Marking gauge and mortise gauge. (1mk)

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

1. Outline **three** possible causes of damage to the hide of cattle when the animal. (1½mks)

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

1. Highlight **three** functions of ventilation in an animal house. (1½mks)

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

1. State **four** factors that determine the power output in an animal. (2mks)

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

**SECTION B (20MARKS)**

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

19. The diagram below represents farm tools.

**B**

**A**

**C**

1. Identify the tools labelled **A** and **B** (1mk)

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

1. Give **one** use of each of the tools mentioned in (i) above (2mks)

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

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

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

20. The diagram below represents an implement



1. Identify the implement. (1mk)

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

1. Name the parts labeled E and F and give one function of each. (2mks)

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

1. State **four** maintenance practices carried out on the implement shown in the diagram. (2mks)

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

21. Study the diagram below and answer the questions that follow.

**WATER**

**WATER**

**WATER**

**WATER**

1. Name the structure illustrated above. (1mk)

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

1. Why should structure be round and not rectangular or square shaped. (1mk)

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

1. Describe the heat situation in the structure. (1mk)

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

1. Give **one** reason to support your answer in (iii) above. (1mk)

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

1. Why is saw dust not suitable for use as litter in the structure. (1mk)

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

22. Below is a breeding cycle of a ewe in relation to the feeding regime accompanying it. Use it to answer the following questions.

**TUPPING**

(iii)

(i)

**WEANING**

**LAMBING**

(ii)

1. Name the management practice represented by (i),(ii) and (iii) (3mks)

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

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

iii)………………………………………………………………………………………………

1. Give the importance of practice (i) (3mks)

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

**SECTION C (40MARKS)**

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

23. a) Five diseases of internal parasites attack in livestock. (10mks)

 b) Explain the factors to consider when planning a farm layout. (10mks)

24. a) Outline **ten** management practices a farmer should carry out to maintain good healthy in a herd of cattle. (10mks)

 b) Discuss the management of layers in a deep litter system. (10mks)

25. a) Describe **five** design requirement of a calf pen. (10mks)

 b) Describe Milk Fever disease under the following sub headings.

 i) Animals affected (2mks)

 ii) Symptoms (5mks)

 iii) Control and treatment (3mks)

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

END