Name…………………………………………………….Admission Number……………

Date……………………..

Signature………………..

443/2

AGRICULTURE PAPER TWO

FORM 4

2 HOURS

**PAVEMENT FORM 4 TRIAL 2 EXAMINATION 2021/2022**

**Kenya certificate of secondary education (K.C.S.E)**

**Instructions:**

* *Write your name, admission number and class in the spaces provided above.*
* *Sign and write the date of the examination in the spaces provided above.*
* *This paper consists of three sections : A, B and C*
* *Answer all questions in A and B*
* *Answer any two questions in section C.*
* *All answers should be written in the spaces provided.*
* *This paper consists of 6 printed pages*
* *Students should check the question paper to ascertain that all pages are printed as indicated and that no question is missing.*
* *Candidates should answer the questions in English.*

**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**dual purpose breeds of sheep. **(1mark)**

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

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

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

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

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

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

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

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

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

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

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

i) Tapeworm (*Taeniasolium*) **(½mark)**

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

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

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

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

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

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

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

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

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

**(2marks)**

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

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

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

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

1. Give **four** reasons why young Lambs should be docked **(2marks)**

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

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

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

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

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

b) Why is it necessary to supplement domestic poultry diet with grit? **(½mark)**

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

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

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

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

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

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

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

1. Name **two**Larval developmental stages of liver fluke that occur outside the intermediatehost. **(1mark)**

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

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

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

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

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

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

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

1. Differentiate between

i) Gilt and Sow **(1mark)**

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

ii) Marking gauge and mortise gauge. **(1mark)**

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

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

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

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

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

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

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

1. State **four** functions of worker bee in a colony. **(2marks)**

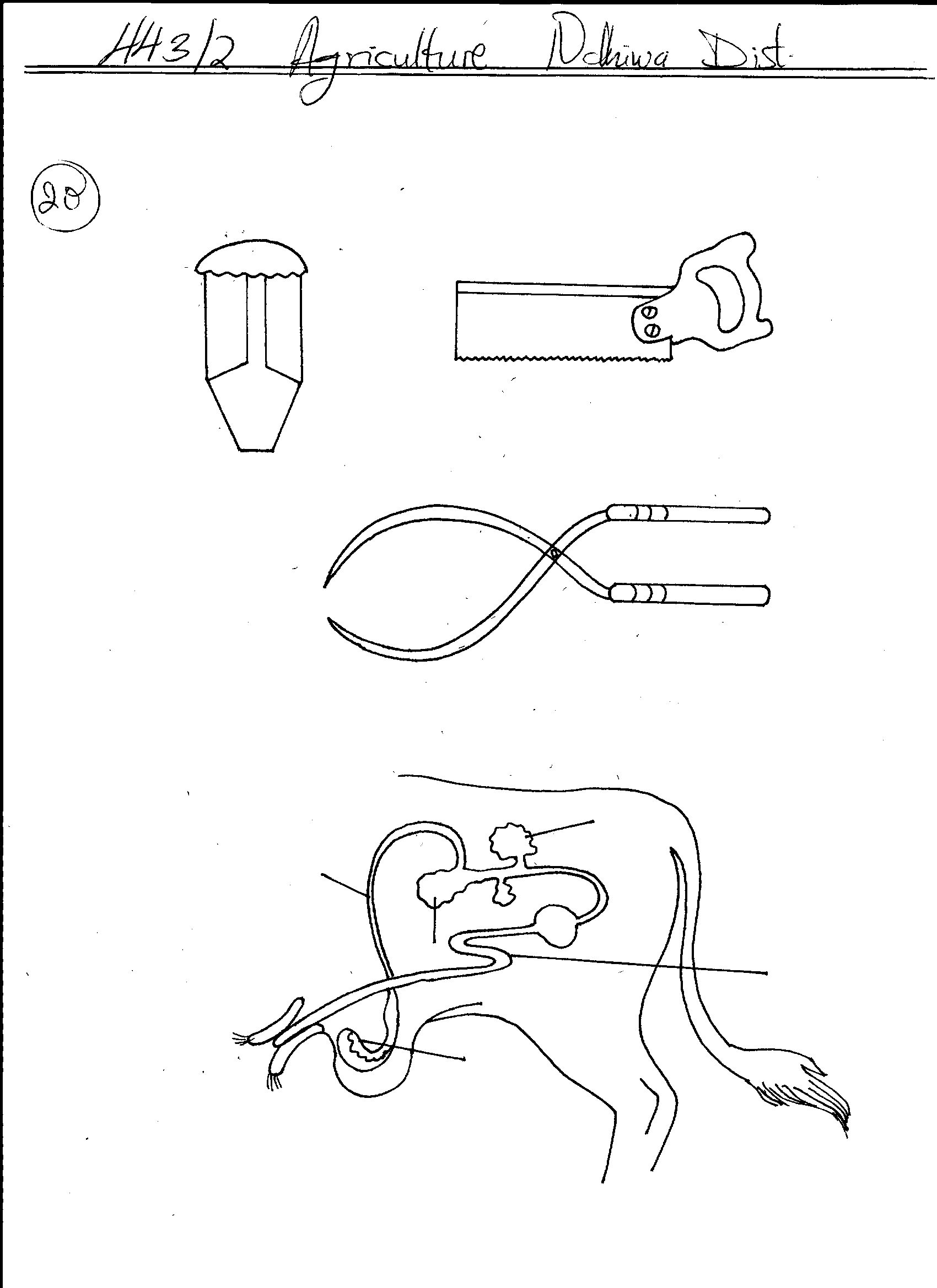
……………………………………………………………………………………………………………………………………………………………………………………………………………………………..

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

**SECTION B (20MARKS)**

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

1. The diagram below represents farm tools.



**B**

**A**

**C**

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

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

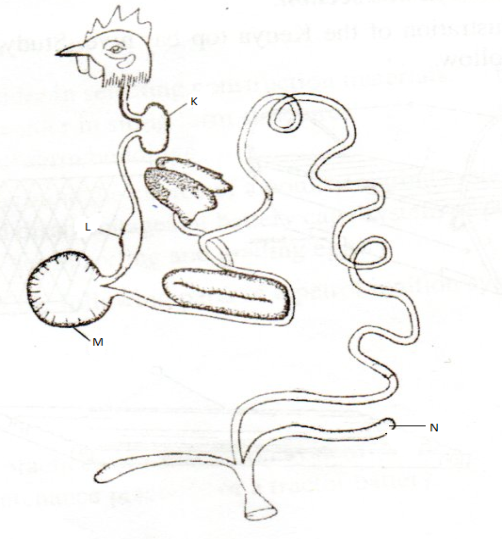
1. Give **one** use of each of the tools mentioned in (i) above **(2marks)**

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

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

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

20. The diagram below shows the digestive system of a chicken. Study it and answer question that follow.



1. . Identify the parts labeled **K.L,M** and **N** above. (2mks)

K………………………………………………………………………………………

L………………………………………………………………………………………

M………………………………………………………………………………………

N……………………………………………………………………………………….

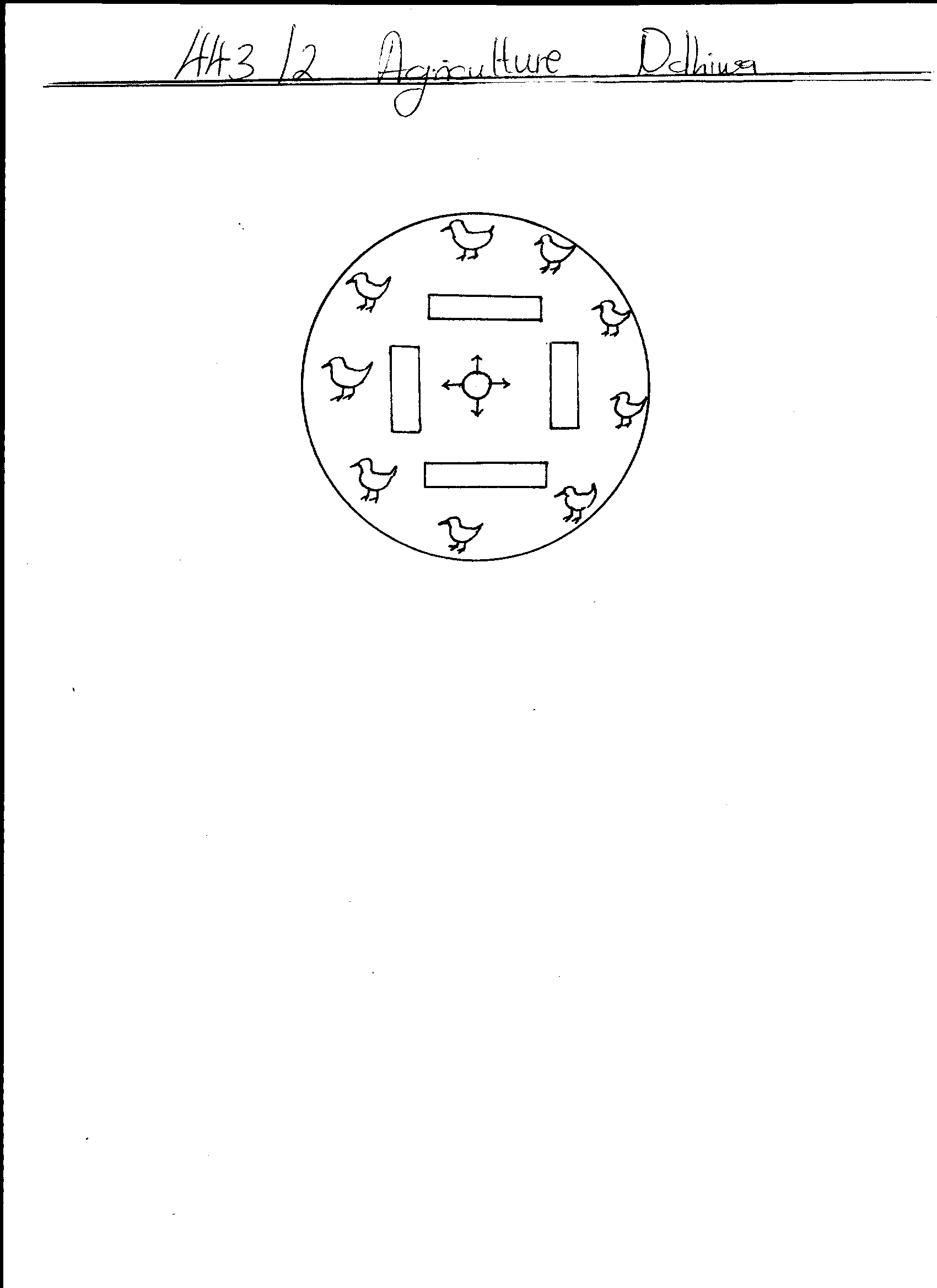
1. . Give the function of the part labeled **M** that makes it efficient in digesting food. (2mks)

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

(C) . Give two characteristics of the part labeled M that make it efficient in digesting food.(1mk)

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

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



**WATER**

**WATER**

**WATER**

**WATER**

1. Name the structure illustrated above. **(1mark)**

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

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

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

1. Describe the heat situation in the structure. **(1mark)**

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

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

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

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

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

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)

**LAMBING**

**WEANING**

(ii)

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

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

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

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

1. Give the importance of practice (i) **(3marks)**

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

**SECTION C (40MARKS)**

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

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

(b) Explain differences between *Bos indicus* and *Bos Taurus* breeds (**(10marks)**

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

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

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

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

i) Animals affected **(2marks)**

ii) Symptoms **(5marks)**

iii) Control and treatment **(3marks)**

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