**SUNRISE EVALUATION EXAMS FORM 4 - 2021**

**NAME……………………………………………………ADM NO.………………. CLASS………**

**DATE: …………………………….. SIGN: …………………….………**

**443/2 AGRICULTURE**

**PAPER 2**

**(THEORY)**

**SEPTEMBER 2021**

**DURATION:: 2HRS**

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

**Instructions to candidates**

*a) Write your name and index in the spaces provided above*

*b) Sign and write the date of examination in the spaces provided above*

*c) This paper consists of* ***three*** *sections* ***A, B*** *and* ***C****.*

*d) Answer* ***all*** *the questions in sections* ***A*** *and* ***B****.*

*e) Answer any* ***two*** *questions in section* ***C***

*f)* ***All*** *answers should be written in the spaces provided in the question paper.*

**For Examiner’s Use Only**

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| --- | --- | --- | --- |
| **Section** | **Question** | **Maximum Score** | **Candidates Score** |
| **A** | **1 – 29** | **40** |  |
| **B** | **30 - 35** | **30** |  |
| **C** | **36 - 38** | **20** |  |
| **Total Score** | | **90** |  |

1. What is apiculture? (1 mark)

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1. **Name one** livestock disease that is transmitted by the following parasites.
2. Brown ear tick (½ mark)

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1. State the intermediate host for liver fluke Fasciola spp. (½ mark)

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1. **State four** breeds of rabbits. (2 marks)

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1. **State two** functions of a crop in a digestive system of chicken. (1 mark)

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1. **State three** ways of restraining cattle (1½ marks)

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1. **State two** livestock diseases caused by virus. (1 mark)

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1. **State two** types of selection practiced by livestock farmers (1 mark)

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1. **State three** ways of preventing predation in a fish pond (1mark)

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1. **State four** functions of feed additives in livestock production. (2 marks)

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1. **State two** types of calf pens. (1 mark)

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1. State advantages of embryo transplant. (2 marks).

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1. **State two** roles of testis in male reproductive system. (1 mark)

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1. **Differentiate** between mothering ability and prolificacy (2 marks)

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1. **State three** ways in which feeding contributes to disease control. (1½ marks)

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1. **State two** functional differences between rumen and abomasums. (2marks)

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1. Name four practices carried out in the crush (2 mks)

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1. Give three dual purpose cattle breeds (1½ mks)

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1. Give three terms used to describe the following: - (1½ mks)

(i) Mature male pig ........................................................................................................................

(ii) Sterilised birds ........................................................................................................................

(iii) Mature female goat ................................................................................................................

1. State four reasons for identifying farm animals (2mks)

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1. State two factors that determine the quality of honey (1mk)

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1. Give four categories of livestock diseases (2 mks)

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1. Name three tools used for plumbing (1½ mks)

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1. State two maintenance practices carried out on an ox-drawn plough ( 1 mk)

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1. List two sources of farm’s power which are environmental friendly (1 mk)

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1. State four functions of the lubricating system in a tractor (2mks)

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1. State two conditions under which a farmer would prefer to use an ox-cart instead of a tractor-drawn trailer (1mks)

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1. State four qualities considered when selecting a heifer for dairy purposes (1mks)

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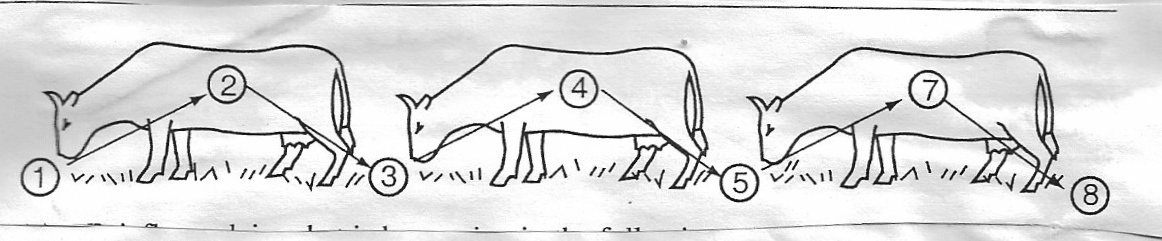
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1. Give one role of a damp proof course in the foundation of a farm building (1mk)

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**SECTION B (30MKS)**

1. The illustrations below represents the stages of development of a three –host tick. Study it carefully and then answer the questions that follow:



(a) Briefly explain what is happening in the following stages (4 marks)

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4…………………………………………………..…………………………………………………............................................................................................................................................................

5…………………………………………………..………………….……………………………..

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(b) Why do you think that tick control is difficult using acaricides? (1 mark)

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(c) Name the most common sites the tick can be found on the body of an animal. (2 marks)

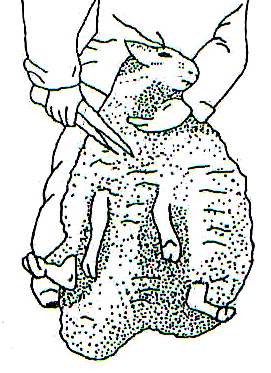
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(d) Give **two** examples of a three host tick (1mark)

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1. The diagram below illustrates a certain practice carried out in sheep management. Study carefully and answer the questions that follow



1. Identify the practice illustrated above (1mark)

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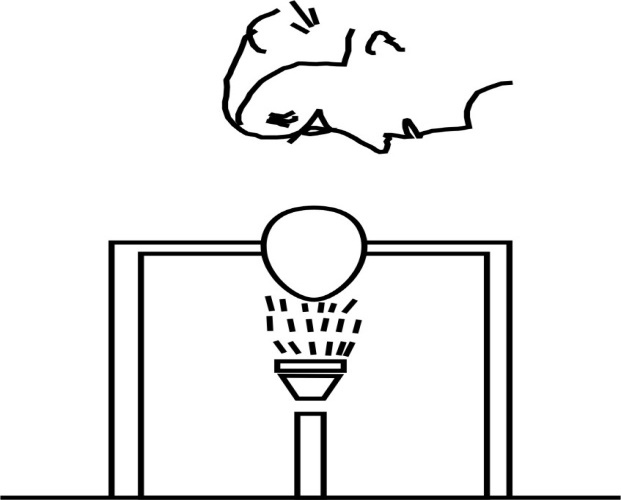
1. State two precautions a farmer should put into consideration when carrying out this practice. (2marks)

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1. How often should the practice be carried out? (1mark)

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1. Below in an activity carried out in poultry production. Study it carefully then answer the questions that follow.



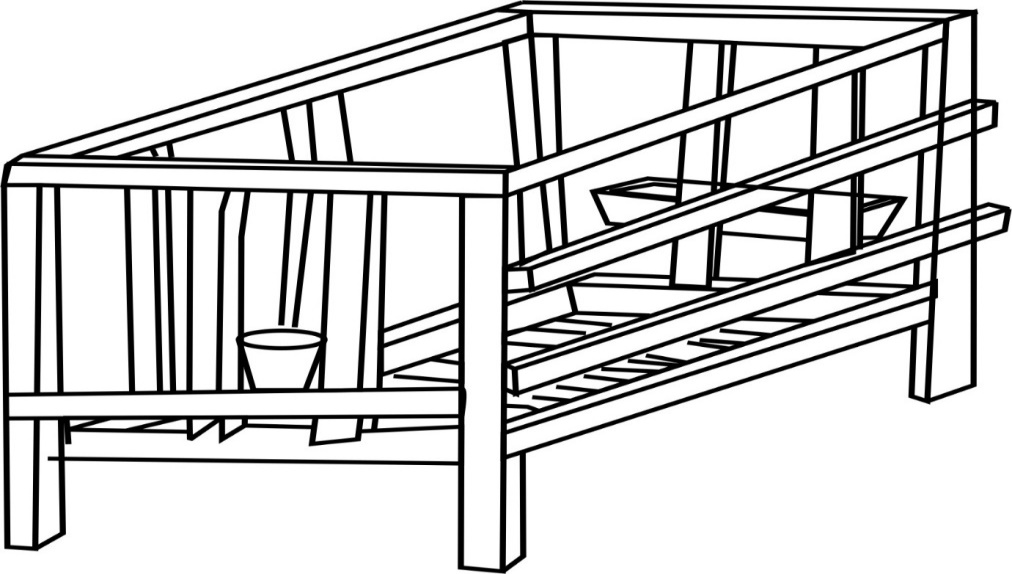
1. Identify the practice being carried out...................................................................... (1 mk)
2. State three defects that can be detected by this practice (3 mks)

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1. State two disadvantages of artificial incubation. (2 mks)

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1. Use the above diagram of a calf pen to answer the questions that follow.

a) How high should the calf pen be raised from the ground (1mk)

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b) Give any two reasons why calves are housed singly (2mks)

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c) Why should the calf pen be near the milking parlour? (2mks)

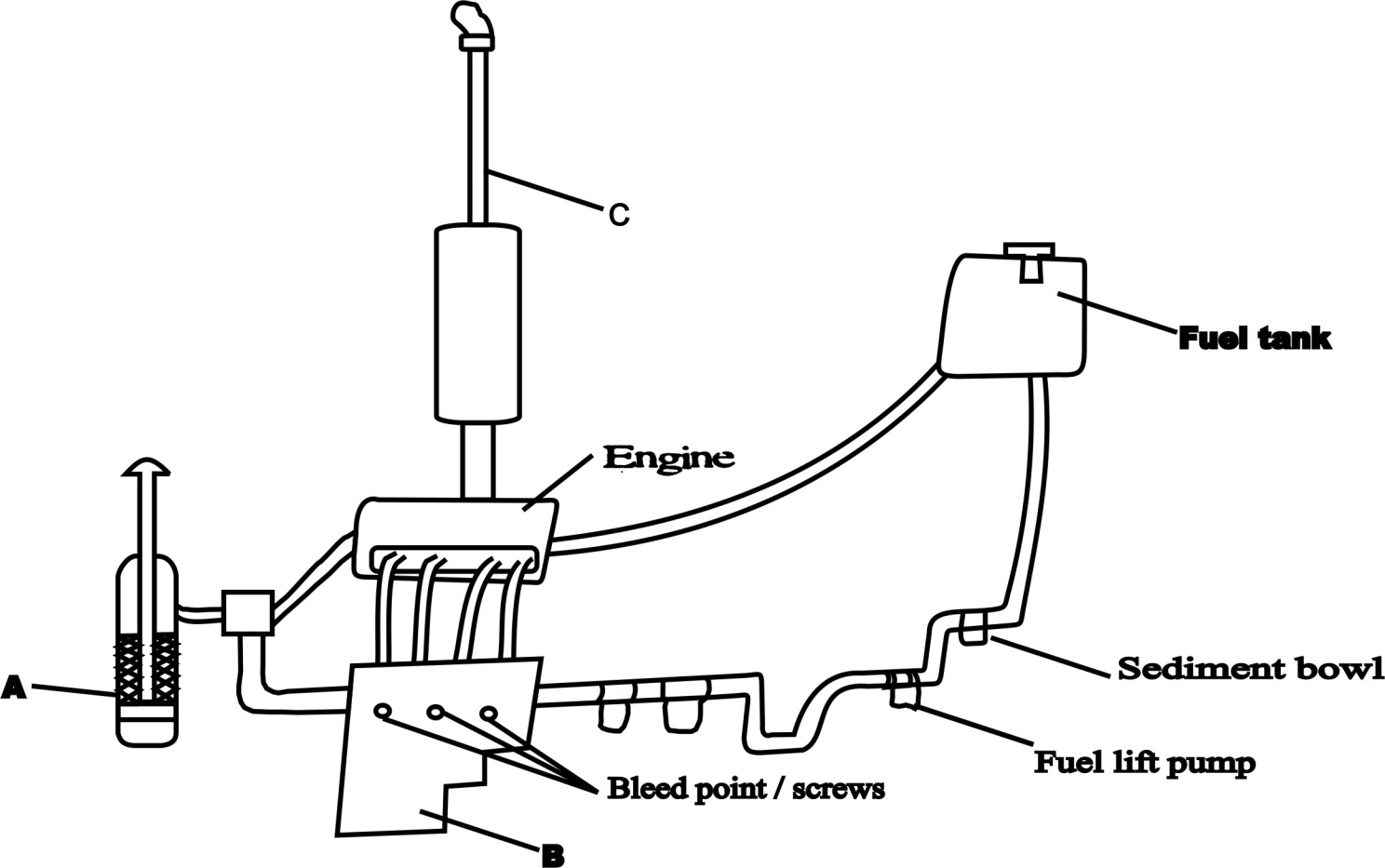
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1. Study the diagram below of a diesel fuel system then answer the questions that follow.



a) Identify the parts labelled (3 mks)

A.....................................................................................................................................................

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

C.....................................................................................................................................................

b) State three maintenance practices carried out on the system (2mks)

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1. Outline the procedure of proper milking technique (3 mks)

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**SECTION C (20MKS)**

1. a) Outline five signs of heat in a cow (5 mks)

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b) Outline five causes of stress in poultry and describe their control (10mks)

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c) Using Pearson’s square compute a ration with 20% DCP from oats which contains 10% DCP

and simsim seedcake containing 60% DCP. (show your working) (5mks)

1. a) Outline the daily maintenance practices that should be carried out on a farm tractor (8 mks)

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b) Outline twelve general symptoms of endoparasite attack in livestock. (12 mks)

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1. a) State four advantages of using a sub soiler in seedbed preparation (4mks)

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b) Give five advantages of artificial insemination in cattle management (5mks)

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c) State five function of water in animal’s body (5mks)

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d) Describe control measures for tape worm in livestock (6mks)

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