NAME………………………………………………………..IDEX NO…………………………………………………………………………..

SCHOOL………………………………………………………..SIGN………………DATE…………………………………………………….

**443/1**

**AGRICULTURE**

**PAPER 1**

**TIME: 2 HOURS**

**DECEMBER, 2020**

**MERU CENTRAL CLUSTER EXAMINATION (2020)**

 **Kenya certificate of secondary education (k.c.s.e)**

**INSTRUCTIONS TO CANDIDATES**

* Write your name, school and index number, 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** the questions in section **A** and **B** and **any two** questions from section **C.**
* All answers must be written in the spaces provided in this booklet

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For Examiner’s Use Only

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|  |  |  |  |  |  |
| **SECTION** | **QUESTIONS** | **MAXIMUM SCORE** | **CANDIDATES SCORE** |
|  |  |  |  |  |  |
| A | 1−15 | 30 |  |  |
|  |  |  |  |  |  |
| B | 16−19 | 20 |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  20  |  |  |
|  C |  |  |  |  |  |
|  |   |  |  20 |  |  |
|  |  |  |  |  |  |
|  | Total score |  90 |  |



**SECTION A (30 MRKS)**

1.Differentiate between olericulture and pomoculture as used in crop production .(1mrk) ................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................................

2.Give four method of farming (2mrks)

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3.Give two examples for each of the following types of cost incurred in broiler production .

1. Variable cost ( 2 marks)

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1. fixed cost (2 marks)

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4.Give **four** advantages of crop rotation .(2mrk)

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5.State **four** factors that that should be considered when classifying crop pest (2mrks)

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 6. a) Name **four** pieces of information contained in a land title deed (2mks

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 b) Name **two** forms of collective land tenure system. (1mk

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7. List **four** post – harvest practices that are carried out in maize production (2mks

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8. What is opportunity cost? (1/2 mk)

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9.Outline **four** ways of improving lab our productivity (2mks

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10. State **four** factors that can affect the efficiency of pesticides (2mks

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11 List **four** sites on which agro forestry trees can be established on a farm. (2mks

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12.Give **four** advantages of using seeds over vegetative materials. (2 mks)

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13.State **four** features that should be considered when choosing water pipes for use on the farm. (2 mks)

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14.Give **three** reasons why primary cultivation should be done early before the onset of the rains(1 ½ )

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15. Give **four** suitable characteristics of plants used as green manure. (2mks)

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**SECTION B: (20 marks)**

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

16. The diagram below shows a pest and the damaged crop study it and answer the questions that follow.



 a) Identify the pest illustrated above (1mk

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 b) Explain **two** ways of controlling the pest (2mks

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 c) State **two** ways in which the pest economically important. (2mks)

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17. a) Distinguish between straight and compound fertilizers. (1mk

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 b) A farmer applied 200kg of C A N (20%N) per hectare maize crop. Calculate the amount of

 Nitrogen applied on his 5 hectare crop. Show your working (4mks

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18The diagram below shows a maize cob attacked by a certain disease. Study it and then answer the following questions.

1. Identify the disease (1 Mk)

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1. Name **two** causal organism of the disease. (1 Mk)

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1. State **three** cultural methods of controlling the disease. (3 Mks)

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19. Below is a graphical representation of a law in agricultural economics. Study the graph carefully

 and answer the questions that follow.

 1400

 1200

 1000 Phase I Phase II Phase III

 800

 600

 400

 200

 0 20 40 60 90 100

 Fertilizer input (50kg bags)

 a) State the law illustrated by the graph (2mk

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 b) Explain how each additional unit of fertilizer input relates to the total output of maize in

 **phases II and III .(** 2 mks)

 Phase II

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 Phase III (1mk

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 c) State the importance of the law identified in ( I ) above to the maize farmer (1mk

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**SECTION C ( 40MARKS)**

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

20a) Explain **five** factors that should be considered in farm planning. (10 Mks)

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 b) Describe transplanting of tomatoes seedling. (10 Mks)

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21Describe paddy rice production under the following sub-headings.

1. Land preparation (2 Mks)

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1. Water control (2 Mks)

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1. Fertilizer application (2 Mks)

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1. Weed control (2 Mks)

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b) Explain how each of the properties of rainfall and light influence crop production.

i) Rainfall (8 Mks)

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 ii) Light

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c) Explain **four**  factors that should be considered when sitting a vegetable nursery. (4mks)

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22a) Describe **six** advantages of rotational grazing (6mrks)

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b)Explain **eigh**t ways in which soil fertility can be maintained (8mrks)

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1. Explain **six** reasons for pruning coffee.(6mrks)

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