Name: .......................................................................................... Index Number ……...………

School: ................................................................... Candidate’s Signature ……………………

 Date…………………………

443/1

AGRICULTURE PAPER 1

August/September, 2022.

Time: 2 hours

**AGRICULTURE PAPER 443/1**

**ARISE AND SHINE TRIAL EXAMINATIONS**

**Kenya Certificate of Secondary Education (KCSE)**

**Instructions to Candidates**

* *Write your* ***name, index number*** *in the spaces provided.*
* *This paper has three sections A, B and C.*
* *Answer* ***all*** *the questions in section* ***A*** *and* ***B*** *in the spaces provided.*
* *Answer any* ***two*** *questions in section* ***C***

**For Examiner’s Use Only**

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| --- | --- | --- | --- |
| **SECTION** | **QUESTIONS** | **MAXIMUM****SCORE** | **CANDIDATE’S****SCORE** |
| A | 1 – 19 | 30 |  |
|  B | 20-23 | 20 |  |
| C | 24-26 | 40 |  |
|  | **Total Score** | **90** |  |

**SECTION A (30 MARKS)**

***Answer All the Questions in This Section in the Spaces Provided***

1. State **four** farming activities that may improve soil structure. (2 marks)

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1. Name **three** types of legume trees used as fodder. (1½ marks)

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1. State **three** effects of low temperature on crop production. (1½ marks)

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1. Give **three** reasons for drying grains to 21% moisture content after harvesting. (2 marks)

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1. State **four** parameters of national economic development. (2 marks)

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1. Outline **two** conditions that favors nomadic pastoralism in Kenya. (2 marks)

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1. State **three** factors that determine the depth of planting seeds. (1½ marks)

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1. State **three** factors that will determine the selectivity of herbicide in chemical weed control. (1 ½ mark)

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1. Outline **four** factors that affect the quality of farmyard manure. (2 marks)

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1. Name **three** basic concepts of economics (1½ marks)

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1. State **four** importance of tissue culture. (2 marks)

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1. Give **two** methods used to drain farmland. (1 mark)

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1. State **four** factors to consider when designing a sound farm plan. (2 marks)

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1. Nam **four** improper farming methods that increase the rate of soil erosion. (2 marks)

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1. Outline **four** pieces of information contained in a land title deed. (2 marks)

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1. Differentiate between a nursery bed and a seedbed. (1 mark)

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1. Name **three** macro nutrients whose deficiency symptoms is chlorosis. (1½ marks)

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1. Define Agriculture. (½ mark)

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1. Give **two** reasons for sub soiling (1 mark)

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**SECTION B (20 MARKS)**

***Answer All the Questions in the Spaces Provided***

1. After soil sampling and testing a farmer was advised to apply 200kg of nitrogen per hectare in his 2 hectare farm. If the farmer has only diammonium phosphate (D.A.P) 18:46:0 at his disposal;
2. Calculate the amount of D.A.P he would require (1½ marks)
3. Calculate the amount of P205 he will have applied per hectare. (1½ marks)
4. State **two** symptoms the farmer would have observed on the maize crops if he applied excess nitrogen. (2 marks)

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1. The diagram below shows a common weed plant.



1. Identify the weed………………………………………………………………………(1 mark)
2. Why is it difficult to eradicate the above weed? (1 mark)

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1. Name **two** biological weed control methods. (2 marks)

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1. Name **one** economic importance of the above weed. (1 mark)

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1. The diagram below show a method of crop propagation. Study it and answer the question that follows:



1. Identify the method. (1 mark)

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1. State **one** advantage of the above method over the other methods of crop propagation. (2 marks)

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1. State **three**  factors which influence the rooting of cutting in vegetable propagation (3 marks)

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1. The diagram below shows a tomato fruit affected by a pest. Study it carefully then answer the questions that follow.



1. Identify the pest labeled P. (1 mark)

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1. State **two** methods used to control the pest. (2 marks)

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1. State any **two** factors to consider when selecting tomato fruits for marketing. (2 marks)

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**SECTION C (40 MARKS)**

***Answer Any Two Questions From This Section In The Spaces Provided.***

1. (a) Outline the various uses of water in a mixed farm. (10 marks)

(b) Describe **five** methods of draining water from a marshy land. (10 marks)

1. (a) Describe **five** field management practices carried out in tomatoes production. (10 marks)

(b) Describe **five** cultural practices used in soil and water conservation (10 marks)

1. (a) Explain **five** factors that would influence the spacing of a particular crop in the field. (10 marks)

(b) Describe **five** practices that a farmer should carry out to ensure uniform germination of seeds (5 marks)

(c) State **five** factors that determine the stages of harvesting crops. (5 marks)

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