**Name: ……………………………………………... Index no ……..…......................................**

**School: …………………………………………….. Candidate’s sign …………………….......**

**Date: ……………………………………………….. Class…………………………………….**

**443/1**

**AGRICULTURE**

**PAPER 1**

**MARCH/APRIL 2017**

**TIME: 2 HOURS**

**MOKASA JOINT EVALUATION TEST**

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

**Agriculture**

**Paper 1**

**INSTRUCTIONS TO CANDIDATES:**

* *Write your* ***name, index number, school*** *and* ***admission number*** *in the spaces provided.*
* *Sign and write the date in the spaces provided above.*
* *Answer* ***all*** *the questions in section* ***A*** *and* ***B***
* *Answer any* ***two*** *questions in section* ***C.***
* *Answers should be written in the spaces provided in this booklet.*

***For Examiner’s Use Only:***

|  |  |  |  |
| --- | --- | --- | --- |
| **SECTION** | **QUESTIONS** | **MAXIMUM SCORE** | **CANDIDATES SCORE** |
| A | 1-16 | 30 |  |
| B | 17-21 | 20 |  |
| C |  | 20  20 |  |
|  | **TOTAL** | **90** |  |

*This paper consists of 13 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.*

**SECTION A (30MARKS)**

1. List **four** branches of agriculture that deal with livestock production. (2mks)

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1. Name the vegetative material used to propagating the following crops. (2mks)
2. Pyrethrum………………………………………………………………………………
3. Sweet potato……………………………………………………………………………
4. Sisal …………………………………………………………………………………….
5. Pineapple………………………………………………………………………………..
6. State **four** reasons for deep ploughing during land preparation. (2mks)

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1. State **four** factors that determine the choice of irrigation method to be used in the farm.

(2mks)

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1. Give **four** practices that are carried out to achieve minimum tillage. (2mks)

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1. List **four** methods of controlling pests. (2mks)

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1. Mention**three** advantages of using polythene sleeves in the establishment of seedlings.

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1. Give **four** advantages of mixing legumes with grasses in a forage stand. (2mks)

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1. List **four** structural measures used in soil and water conservation. (2mks)

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1. State **four** ways of conserving water on the farm. (2mks)

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1. Give **three** practices a farmer should carry out to ensure uniform germination of seeds in a vegetable nursery bed.

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1. Give **three** disadvantages of landlordism and tenancy tenure system.

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1. Give **four** reasons why seed selection is important in crop production. (2mks)

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1. State **three** effects of exessive application of nitrogenous fertilizers on a crop of tomatoes.

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1. Outline **four** steps followed in land adjudication. (2mks)

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1. State **four** factors which should be considered before using chemical method of pest control in stored grains. (2mks)

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**SECTION B (20MARKS)**

1. A farmer was advised to apply 100kg of per hactare of maize at planting time.The available fertilizer in the market isdiammonium phosphate (DAP) 18:46:0.How much of diammonium phosphate will he apply? (Show your working) (3mks)

b) State the percentage of nitrogen and phosphorus pentoxide in the fertilizer.

(2mks)

Nitrogen………………………………………………………………………………….……………………………………………………………………………….

Phosphorus pentoxide……………………………………………………………....

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1. Study the illustration showing a method of soil and water conservation measure and answer the questions that follow.

C:\scan0005.tif

a) Identify the type of structure illustrated above. (1mk)

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b) Describe the procedureof constructiong the above structure. (4mks)

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1. The diagram below shows a pest and a damaged crop. Study it and answers the questions that follow.

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1. Identify the crop pest illustrated above. (1mk)

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1. Give **two** ways of controlling the pest illustrated. (2mks)

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1. The diagram below shows a common weed. Study it and answer the questions that follow.

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1. Identify the weed illustrated above. (1mk)

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1. Give areason as to why it is difficult to control the weed illustrated above. (1mk)

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1. The farm record below was extracted from a farmers books.Study it and answer the questions that follow.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name of person | Pay roll no. | Days | | | | Days worked | Rate of pay(ksh) | Total pay(ksh) | Signature of workers |
| 1 | 2 | 3 | 4 |
| David | 01 |  |  |  |  | 20 | @100 | 2000/= |  |
| Julie | 02 |  |  |  |  | 25 | @100 | 2500/= |  |

1. Identify the type of labour record shown above. (1mk)

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1. Give **two** importances of the farm record above. (2mks)

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1. Give **two** reasons why it is important to take farm inventories. (2mks)

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**SECTION C (40MARKS)**

1. a) Explain the benefits of land consolidation. (6mks)

b) Briefly explain **six** factors influencing mass wasting. (6mks)

c) Explain **four** ways of improving labour productivity (8mks)

1. a) Explain how the following climatic factors affect crop production in Kenya.
2. Rainfall reliability (2mks)
3. Low temperature (2mks)
4. Light (2mks)
5. Humidity (2mks)

b) Explain the advantages for mulching crops. (7mks)

(c) Describe the procedure of sowing vegetable seeds in a nursery. (5mks)

1. a) Describe the production of dry beans under the following headings
2. Seed bed preparation (3mks)
3. Planting (4mks)
4. Harvesting (3mks)

b) Explain **five** factors affecting the quality of silage. (10mks)

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