Name: ……………………………………………………………… Adm No……………………

Class……………………………Candidate signature……………... Date………………………..

**443/1**

**AGRICULTURE**

**PAPER 1**

**(THEORY)**

**JUNE, 2024**

**2 Hours**

**KASSU EXAMINATION**

**KENYA CERTIFICATE OF SECONDARY EDUCATION**

**AGRICULTURE**

**PAPER 1**

**THEORY**

**2 Hours**

**Instructions to candidate**

1. *Write your name and Admission number in the spaces provided at top of the page.*
2. *Sign and write date of the examination.*
3. *This paper consists of section* ***A, B*** *and* ***C****.*
4. *Answer all the questions in the section A and* ***B****.*
5. *Answer any two questions in section* ***C.***
6. *All answers should be written in the spaces provided on the question paper.*
7. *Candidates should ascertain that all the pages are printed and no question is missing.*
8. *This paper consists of* ***13*** *printed pages.*

**For Examiner`s use only**

|  |  |  |  |
| --- | --- | --- | --- |
| **Section** | **Question** | **Maximum Score** | **Candidates Score** |
| A | 1 – 17 | 30 |  |
| B | 18 - 21 | 20 |  |
| C |  | 20 |  |
|  |  | 20 |  |
| **TOTAL SCORE** | | **90** |  |

**SECTION A (30 MARKS)**

***Answer all the questions in this section in the spaces provide.***

1. Give **two** roles of agriculture in industrial development. (1mk)

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1. Differentiate between **mixed cropping** and **intercropping**. (1mk)

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1. List **four** physical weathering agents in soil formation process. (2mks)

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1. List **four** farming practices that destroy soil structure. (2mks)

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1. Outline **four** effects of siltation in dams. (2mks)

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1. (a) Give **two** main methods of classifying weeds (1mk)

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(b) State **two** disadvantages of controlling weeds by tillage method. (1mk)

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(c) State **four** factors that affect selectivity and effectiveness of herbicides. (2mks)

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1. Outline **two** methods used by farmers to harden-off seedlings in a nursery bed. (1mk)

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1. Give **four** disadvantages of minimum tillage. (2mks)

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1. State **four** characteristics of tree recommended for agro-forestry. (2mks)

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1. State **three** reasons for staking tomatoes in the field. (11/2mk)

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1. Give the use of each of the following financial document.
2. **An invoice** (1mk)

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1. **A local purchase order**  (1mk)

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1. Give **four** disadvantages of using farm yard manure. (2mks)

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

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1. Outline **four** advantages of mixed stand pasture. (2mks)

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1. (a) Give a reason why manure application is not recommended in **carrot production**. (1/2mk)

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(b) Name **two** pests that affect cabbages. (1mk)

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1. Give a reason why striga weed is referred to as a parasitic weed. (1/2mk)

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1. State **three** advantages of organic mulch in crop production (11/2mk)

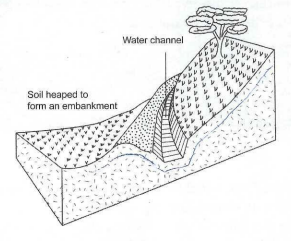
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**SECTION B (20 MARK)**

1. The illustration below indicate a type of soil and water conservation measure. Study it and answer questions that follow.



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

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1. State **two** areas where the structure above discharge its water to (2mks)

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1. A part from the above name two other structural physical soil and water conservation measures. (2mks)

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1. Study the farm record illustrated below and answer questions that follow.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name of person | Pay roll no. | Days | | | | | Days worked | Rate of pay (Ksh) | Total pay (Ksh) | Signature of workers |
| 1 | 2 | 3 | 4 | 5 |
| Mrs X | 08 |  |  |  |  |  | 25 | @ 100/= | 2500/= |  |
| Mr Y | 09 |  |  |  |  |  | 25 | @ 100/= | 2500/= |  |

1. Identify the type of record illustrated above. (1mk)

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1. Give **four** pieces of information contained in invoice. (4mks)

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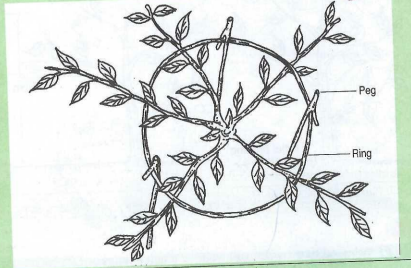
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1. Study the illustration of a field practice illustrated below and answer questions that follow.



**Q**



**R**

1. Identify the illustrations labeled **Q** and **R** above (2mks)
2. **Q**

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1. **R**

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1. Give reason for carrying out the practice above. (1mk)

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1. Name **two** methods of pruning coffee. (2mks)

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1. A farmer was asked to apply fertilizers as follows **200kg/hac** of **DSP (40%P2O5, 150kg/hac** of Muriate of potash **60% K2O, 150kg/hac** of sulphate of ammonia **20%N**.
2. How much **P2O5** did the farmer apply per acre? (1mk)

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1. How much **K2O** did the farmer apply per acre? (1mk)

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1. How much Nitrogen (N) did the farmer apply per hectares? (1mk)

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1. Calculate the amount of filler material in the double superphosphate (DSP) used above. (1mk)

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1. Differentiate between **complete** and **incomplete** compound fertilizer. (1mk)

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**SECTION C (40 MARKS)**

1. (a) Describe the production of beans under the following sub-headings.
2. **Planting** (3mks)

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1. **Field Management practices** (4mks)

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(b) (i) Describe the procedure of **harvesting pyrethrum**. (3mks)

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(ii) Give one precaution observed when harvesting pyrethrum. (1mk)

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(c) Give **five** importance of grafting oranges. (5mks)

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(d) Explain **five** factors that determine the choice of type of irrigation method. (5mks)

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1. (a) Explain **five** ways in which biotic factors influences crop production negativity. (5mks)

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(b) Outline **seven** functions of a farm manger. (7mks)

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(c) Explain **eight** cultural measures of controlling pests. (8mks)

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1. (a) State and explain **four** factors that determine elasticity of demand. (8mks)

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(b) State **five** advantages of timely planting. (5mks)

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(c) Explain **seven** effects of fragmentation and sub-division of land in Agriculture. (7mks)

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