**NAME ……………………………………..……………….. DATE …………………………………**

**INDEX NO. …………….……….……..…..… CANDIDATE’S SIGNATURE …………..…..………..**

443/1

AGRICULTURE

PAPER 1 (THEORY)

TIME: 2 HOURS

**GOLDEN ELITE EXAMINTIONS 2020**

*Kenya Certificate of Secondary Education*

443/1

AGRICULTURE

PAPER 1 (THEORY)

TIME: 2 HOURS

**INSTRUCTIONS TO CANDIDATES**

1. Write your name and index number in the spaces provided above.
2. This paper consists of **THREE** sections: A , B and C
3. Answer **ALL** the questions in sections A and B and any **TWO** questions in section C
4. ALL answers **MUST** be written in the spaces provided.
5. Do not remove any pages from this booklet.

**FOR EXAMINER’S USE ONLY**

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| --- | --- | --- | --- |
|  | **Questions** | **Maximum score** | **Candidate’s score** |
| A | **01-18** | **30 marks** |  |
| B | **19-23** | **20 marks** |  |
| C | **24-26** | **40 marks** |  |
|  | **Total score** |  |

**This paper consists of 8 printed pages.**

**Candidates should check to ensure that all pages are printed as indicated and no questions are missing**

**SECTION A (30 MARKS)**

 **Answer ALL questions in this section.**

1. Outline two ways in which agriculture promotes industrial growth in Kenya. **(1 mark)**

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1. Name two factors to consider when identifying a farming system. **(1 mark)**

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1. State two ways of increasing amount of light in a given field crop. **(1 mark)**

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

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1. State four influences of soil depth to crop production. **(2 marks)**

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1. Give four management practices carried out on bananas. **(2 marks)**

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1. State three basic economic concepts. **(1½ marks)**

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1. Mutua requires to apply 200kg/ ha of Nitrogen to produce a maize crop. The fertilizer available is Diammonium phosphate whose grade is 18 – 46 – 0. Calculate:
2. The amount of D.A.P he should apply. **(1 mark)**
3. The amount of P2O5 he should apply. **(1½ marks)**
4. List any four ways in which soil is deprived of its fertility. **(2 marks)**

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1. State four factors considered when selecting a site for a tomato nursery bed. **(2 marks)**

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1. State any two ways of breaking seed dormancy during the preparation of planting materials. **(1 mark)**

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1. State four advantages of tissue culture in crop production. **(2 marks)**

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1. Outline the role played by trees in soil and water conservation. **(2 marks)**

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1. Give four different ways in which viral diseases may spread in a crop field. **(2 marks)**

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1. Give any four insect pests with biting and chewing mouth parts. **(2 marks)**

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1. List any four types of terraces. **(2 marks)**

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1. State two possible causes of swelling of roots in legumes. **(1 mark)**

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1. Give two general symptoms of fungal diseases in crops. **(1½ marks)**

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**SECTION B (20 MARKS)**

 **Answer ALL questions in this section.**

1. A farmer wanted to know the cause of his low crop yield. Give four things that may be determined during the process of soil testing. **(2 marks)**

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1. Study the illustrations below and answer the questions that follow.



1. Name the types of grafting labeled A, B and C above. **(3 marks)**

A………………………………………………………………………………………………………

B………………………………………………………………………………………………………

C………………………………………………………………………………………………………

1. Name any two crops propagated by method C. **(2 marks)**

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1. Give any two tools or materials used in propagation method C. **(2 marks)**

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1. Calculate the plant population in a 5.4 ha plot of a bean crop planted at the spacing 45cm x 20cm. Assume one plant per hole. **(5 marks)**
2. The diagram below shows an established tea seedling in a polythene sleeve. Study the diagram and answer the questions that follow.
3. State two functions of part B. **(1 mark)**

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1. Enumerate two advantages of raising seedlings in polythene sleeves. **(1 mark)**

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1. Outline four advantages of pure stand pastures. **(4 marks)**

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**SECTION C (40 MARKS)**

 **Answer ANY TWO questions in this section**

1. Describe the process of water treatment. **(10 marks)**

Outline the importance of drainage as a land reclamation practice. **(10 marks)**

1. Describe production of tomatoes under the following subheadings.
2. Ecological requirements. **(5 marks)**
3. Nursery establishment and management. **(8 marks)**
4. Control of pests. **(2 marks)**
5. Harvesting and marketing. **(5 marks)**
6. **(a)** Explain how the following factors influence agriculture.
7. Cultural and religious beliefs. **(6 marks)**
8. Transport and communication. **(6 marks)**

**(b)** State four advantages and four disadvantages of using pesticides. **(8 marks)**

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