**Name--------------------------------------------------------------------Admission No.-------------**

**Date---------------------- Candidate’s signature----------------------------------**

**Agriculture**

**PAPER 443/1.2015**

**FORM THREE**

**TERM TWO 2015**

**AGRICULTURE**

**PAPER1 (THEORY)**

**INSTRUCTIONS TO THE CANDIDATES**

1. ***write your name and index number in the spaces provided above***
2. ***sign and write the date of the examination in the spaces provided above***
3. ***this paper consists of three sections A,B and C***
4. ***answer all questions in section A and B***
5. ***answer any two questions in section C***
6. ***all answers should e written in the spaces provided***
7. ***candidates should check the question paper to ascertain that all the pages are printed are printed as indicated and that no questions are missing***
8. ***candidates should answer the questions in English***

**FOR EXAMINERS USE ONLY**

|  |  |  |  |
| --- | --- | --- | --- |
| ***SECTION*** | ***QUESTIONS*** | ***MAXIMUM SCORE*** | ***CANDIDATES SCORE*** |
| ***A*** | ***1-17*** | ***30*** |  |
| ***B*** | ***18-22*** | ***20*** |  |
| ***C*** |  | ***20*** |  |
|  | ***20*** |  |
| ***Total score*** | ***90*** |  |

***Section A***

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

1. Outline four characteristics of good vegetable seedling((2marks)

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1. Give the propagation materials for the following crops. (2mks)
2. Sweet potato

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1. Pyrethrum

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1. Sugar cane

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1. Pine apple

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1. What is meant by each of the following terms (3marks)

a) Mixed cropping

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b) Mono cropping

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c) Inter cropping

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1. Give four factors that influence crop rotation (2marks)

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1. How are the following conditions prevented in the named crops below
2. Blossom end rot in tomatoes(1/2 marks)

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1. Forking in carrots(1/2 marks)

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1. Distinguish between seed dressing and seed inoculation(1mark)

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1. state two effects of hardpans in crop production(1 mark)
2. State four land reform programs undertaken in Kenya. (2marks)

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9 .Give three method of land reclamation. 11/2 mks-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

1. .Give two disadvantages of clearing land by burning( 1mark)

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1. .State three methods for treating water for use in a farm($1\frac{1}{2}$marks)

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1. Outline four advantages of plastic pipes in the conveyance of water in the farm. (2marks)

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1. Give two basic concepts of economics. (1mk)

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1. Outline four advantages of using seeds as planting materials. (2marks)

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1. State four characteristics of nitrogenous fertilizers. (2mks0

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1. State four roles of organic matter in sandy soil. (2marks)

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1. State four reasons for practicing minimum tillage. (2marks)

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**SECTION B (20 marks)**

**Answer all questions in the spaces provided**

1. the diagram below illustrates a method of crop propagation

Glass container

 Plantlets

 Culture medium

1. Identify the method of propagation. (1mark)

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1. Name a common crop propagated through the above method. (1mark)

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1. Name two disadvantages of the above method. (2marks)

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1. below is a diagram of a nursery for raising kale seedlings
2. state two advantages of having the part labeled x

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1. at what stage of growth should kale seedling be transplanted. (1mark)

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C.state two ways in of minimizing damages of seedlings when transplanting (2mark)

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20. Thetable belowshows a format a farm record .

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Date**  | **Disease symptoms** | **Livestock affected** | **Drug used**  | **Cost of treatment** | **Remarks**  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

1. Name the farm recorded illustrated below **(1mark**)

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1. Give two uses of the farm records shown above (**2marks**)

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1. The following is a list of plant nutrients; copper, calcium, nitrogen, zinc, phosphorus, sulphur, carbon, iron, magnesium and molybdenum. Which of the following plants nutrients are:
2. Macro nutrients. (1mark)

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1. Micro nutrients(1mark)

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1. Fertilizer elements(1mark)

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1. Liming elements(1mark)

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1. The following diagram shows a method of compost preparation
2. Identify the method. (1mark)

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1. Give two factors that should be considered when sittingin a compost pit. (2marks)

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1. State two factors that determine the time the manure would be ready for use in the farm. (2marks)

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**SECTION C (40 marks)**

**Answer any two question s in this section after the spaces provided after the question**

1. a. Give five reasons why land consolidation should be encouraged in Kenya. (5marks)

b.Explain five disadvantages of communal land tenure system. (5marks)

C .Outline five benefits of a land title deed. (5marks)

1. Explain the factors that influence land fragmentation.(5marks)

1. Describe cabbage production under the following sub topics.
2. Ecological requirements. (4marks)
3. Nursery establishment. (10marks)
4. Land preparations and transplanting. (6marks)
5. a. Discuss the various ways of breaking seed dormancy. (6marks)

b .Outline five methods that are used in application of inorganic fertilizer. (5marks)

 C. Describe six practices that a farmer should carry out to ensure uniform germination of seeds. (6marks)

D .Give three reasons for carrying out grafting and budding in crop propagation. (3marks)