**Name:...................................................................................................Admission** **Number:....................................................…**

**School:.............................................................................................................Class:......................................................................**

**Date:...............................................**

**Sign:...............................................**

 **AGRICULTURE 443/1**

 **TIME: 2 HOURS**

 **INSTRUCTION TO CANDIDATES**

*1.This paper consists of* ***THREE*** *sections:* ***A, B*** *and* ***C***

*2.Answer* ***ALL*** *questions in section* ***A*** *and* ***B***

***3.ANY*** *Two questions from section* ***C****.*

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| --- | --- | --- |
| **SECTION** | **MARKS** | **CAND. SCORE** |
| A | 30  |  |
| B | 20  |  |
| C | 40  |  |
| **TOTAL SCORE** | **90**  |  |

This paper contains 16 printed pages

**SECTION A (30MKS)**

***Answer all the questions from this section in the spaces provided.***

1. Give **two** characteristics of plantation farming. (1mk)

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1. Name **two** chemical processes of weathering. (1mk)

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1. State **two** advantages of organic farming. ￼ (1mk)

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1. Outline **two** effects of soil organisms which benefit plant growth. ￼ (1mk)

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1. Give **two** ways in which organic mulch help to conserve water in the soil. (1mk)

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1. Give **two** types of labour records. (1mk)

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1. Outline **two** causes of Hardpan in the soil (2mks)

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1. State **four** importance of raising seedlings in a nursery bed. (2mks)

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1. Give **four** symptoms of potassium Deficiency in plants (2mks)

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1. State **three** reasons for top dressing pasture. ( 11/2mks)

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1. Give **four** reasons for training crops as a field practice . ( 2mks)

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1. State **three** activities the farmer carries out on a store before storing grains. (11/2mks)

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1. Give **four** desirable characteristics of certified seeds. (2mks)

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1. (a) Outline **two** characteristics of nitrogenous fertilizers. (1mk)

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 (b) Give the forms in which the following elements are available to plants: (1mk)

1. Phosphorous: ……………………………………….
2. Potassium…………………………………………
3. Give **four** factors that influence the choice of tools and equipment used in Primary cultivation. (2mks)

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1. State **four** methods of weed control. (2mks)

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1. Define the following terms as used in crop production.

(a) Trellising (1mk)

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(b) Stooking (1mk)

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1. Give **two** advantages of strip grazing (1mk)

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1. State **four** advantages of mixed farming. (2mks)

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**SECTION B. (20 MARKS)**

 ***Answer* ALL *questions in this section in the spaces provided***

1. Study the diagram below and answer the questions that follow. The illustrations represent a method of crop propagation.



(a) Name the crops (s) propagated by illustrations: (1mrk)

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(b) Give **three** factors that promote the rooting of illustration **A.** (3mrks)

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1. The diagram below illustrates an experiment using garden soil. Study it carefully and answer the question that follow.



(a) What was the aim of the experiment? (1mrk)

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(b) Name the parts labeled **C** and **D.** (2mrks)

C…………………………………………………………………………………………………………………………….

D……………………………………………………………………………………………………………………………

 (c) Name the property of soil being investigated. (1mrk)

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22.The illustration below shows a type of soil erosion. Study it carefully and answer the questions that follow.



1. Identify the type of erosion illustrated. (1mrk)

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 (b) Give **tw**o soil factors that increase the rate of soil erosion. (2mrks)

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(c) Name **one** agent of soil erosion. (1mrk)

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1. The diagram below illustrate a method of irrigation carried out on the farm



 (i) Identify the type of irrigation shown above. (1mk)

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 (ii) Name **two** advantages of the above method. (2mks)

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1. The diagram below represents a method of manure preparation. Study it carefully and answer the questions that follow.



(a) Identify the type of manure being prepared. (1mrk)

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 (b) Name the parts labeled **E** and **F.**  (1mrk) .

 E…………………………………………………………………………………………………………………………….

 F…………………………………………………………………………………………………………………………….

(c) Give **three** disadvantages of manures. (3mrks)

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**SECTION C (40MARKS)**

 ***Answer any TWO questions from the section in the spaces provided***

1. (a) Give **six** precautions observed in pruning mature tea (6 mks)

 (b) Describe the procedure followed when collecting a soil sample form the field for testing in the

 laboratory (6 mks)

 (c) Outline **four** advantages of intercropping crops (4 mks)

 (d) State **four** factors considered before selecting a farm enterprise. (4 mks)

1. Describe the production of tomatoes under the following sub-headings:

 i) Ecological requirements of tomato plants (5mks)

 ii) Land preparations (4mks)

 iii) Transplanting (7mks)

 iv) Disease control (4mks)

27. a) State **five** factors that influence soil productivity. (5mks)

 b) State **five** qualities of mother plant used during grafting. (5mks)

 c) Give **two** types of mulching materials. (2mks)

d) State **four** agricultural practices which pollute water. (4mks)

 e) Describe precautions followed when harvesting coffee. (4mks)

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