

Name: Index no

School: Candidate's sign

Date:

443/1
AGRICULTURE
FORM IV
PAPER 1
PRE-MOCKS
TIME: 2 HOURS

Kenya Certificate of Secondary Education,(KCSE)

FORM IV
Paper 443/1
AGRICULTURE

INSTRUCTIONS TO CANDIDATES:

- Write your **name** and **index number** and **school** in the spaces provided.
- Sign and write the date of the examination in the spaces provided above.
- This paper consists of three section **A,B** and **C**
- Answer **all** the questions in section **A** and **B**
- Answer any **two** questions in section **C**.
- **All** answers should be written in the spaces provided in this booklet.

SECTION 30 Marks

Answer *all* questions in the spaces provided

1. (a) Define the term land tenure.(½ mark)

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- (b) List down four disadvantages of plastic water tanks for water storage on the farm.(2 marks)

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- (c)State four conditions that can lead to land fragmentation and subdivision of Agricultural land in Kenya(2 marks)

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2. (a)State the difference between soil structure and texture. (2 marks)

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- (b)Give three examples of compound fertilizers. (1½ marks)

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- (c)Outline two ways through which ridging reduces soil erosion. (2 marks)

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3. (a)Outline **two** ways through which raindrop or splash erosion initiates the process of soil erosion. (2 marks)

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(b) What are the advantages of using seeds in crop propagation? Give **four** reasons.(2 marks)

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4. (a) State four factors that may limit a farmer from keeping proper farm records.(2 marks)

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(b) Why is burning of fields during land clearing discouraged in crop production? Give four reasons.
(2marks)

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(c) State three roles of disc harrowing in land preparation.(1½ marks)

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5 State three ways through which biological agents help in soil formation. (1½ marks)

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6 State four desirable characteristics of phosphatic fertilizers. (2 marks)

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7 State four advantages of intercropping maize with beans. (2 marks)

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8 Name two field pests of tomatoes. (2 marks)

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9 List down four advantages of minimum soil tillage operation? (2 marks)

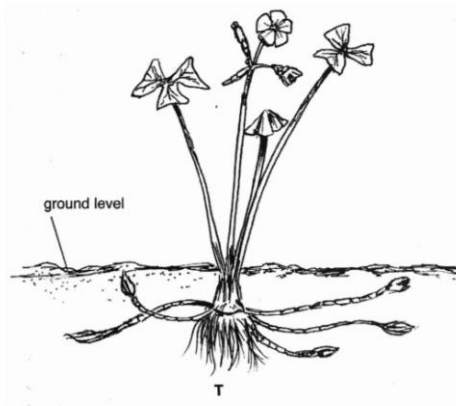
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10 State two conditions under which opportunity cost exists. (1 mark)

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SECTION B (20 MARKS)

11 The diagrams labeled T and U below illustrate some Arabic weeds. Study the diagrams and answer the questions that follow.



(a) Identify the weeds T and U.

(2 marks)

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(b) Why is weed T difficult to Control in the field?

(1 mark)

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(c) State two harmful effects of weed U in crop production.

(2 marks)

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12 The diagram below illustrates one of the routine field practices carried out on some crops. Study the diagram and answer the questions that follow: -



a) Identify the field practice. (1 mark)

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b) State two conditions which necessitate the practice. (2 marks)

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c) Name other two crops where the practice is carried out. (2 marks)

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13. Samples of fertilizers were labeled D, F and E. The properties of each sample were given as explained below.

D: It is crystalline white and acidic in reaction.

B: It is granular grey and neutral in reaction.

F: It is powder grey and highly basic in reaction.

Use the above information to answer the following questions:

(a) Identify the samples of fertilizers labeled D, E and F. (3 marks)

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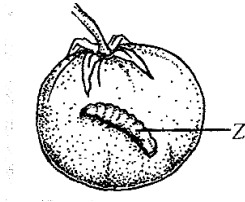
(b) Which fertilizer sample is good for soils with high pH? (1 mark)

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(c) Which fertilizer sample is good for soils with low pH? (1 mark)

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14. Study the illustration below of a tomato fruit and answer the questions that follow:



(a) Name the pest labeled Z. (1 mark)

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(b) State two control measures of the pest named in (a) above. (2 mark)

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(c) Apart from pest Z identified above, name two other insect pests of tomatoes. (2 marks)

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SECTION C (40 Marks)

Answer **any two** questions.

15. Describe the field production of onions under the following sub-headings:

- Ecological requirements.
- Land preparation.
- Transplanting.
- Field operations.
- Harvesting.

(20 marks)

16. Discuss the following land reforms:

- (a) Land consolidation.
- (b) Land adjudication and registration.
- (c) Land subdivision.

(20 marks)

17.(a) Outline the effects of wind on agricultural production.

(11 marks)

(b) Briefly mention the importance of the soil organic matter.

(9 marks)

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