



443/1

AGRICULTURE (Theory)

Paper 1

Nov. 2023 - 2 hours

Serial No.
26993338

Name:

Index Number:

Candidate's signature:

Date:

Instructions to Candidates

- (a) Write your name and index number in the spaces provided above.
- (b) Sign and write the date of the examination in the spaces provided above.
- (c) This paper consists of **three** sections; **A, B** and **C**.
- (d) Answer **all** the questions in sections **A** and **B**.
- (e) Answer any **two** questions in section **C**.
- (f) All answers should be written in the spaces provided.
- (g) Non-programmable silent electronic calculators may be used.
- (h) **This paper consists of 16 printed pages.**
- (i) **Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**
- (j) **Candidates should answer the questions in English.**



For Examiner's Use Only

Section	Question	Maximum Score	Candidate's Score
A	1 - 15	30	
B	16 - 19	20	
C		20	
		20	
Total Score		90	



SECTION A (30 marks)

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

1 State **four** roles of agroforestry trees in soil and water conservation. (2 marks)

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2 State **four** factors that determine spacing in crop production. (2 marks)

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3 Give **four** reasons why organic farming is important. (2 marks)

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4 State **four** advantages of applying nitrogenous fertilizers in splits. (2 marks)

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5 State **four** factors which limit a farmer's access to agricultural credit. (2 marks)

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6 Name **four** sources of surface water.

(2 marks)

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7 Give **four** reasons why land consolidation should be undertaken in densely populated areas.

(2 marks)

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8 Give **four** reasons why maize farmers should control strong wind in their crop fields.

(2 marks)

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9 State **four** aspects of rainfall that influence coffee farming.

(2 marks)

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10 State **four** reasons why a farmer should avoid excess nitrogenous fertilizer in tomato production.

(2 marks)

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11 State **four** disadvantages of using suckers as planting materials. (2 marks)

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12 Give **four** ways of breaking seed dormancy. (2 marks)

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13 State **four** factors considered when selecting stem cuttings for planting cassava. (2 marks)

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14 Give **four** reasons for sub-soiling in land preparation. (2 marks)

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15 State **four** methods of treating water for use on the farm. (2 marks)

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SECTION B (20 marks)



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

16 The picture below shows the practice a farmer used to grow crops.



(a) Identify the practice. (1 mark)

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(b) State **two** factors that determine the selection of the crop labelled **E**. (2 marks)

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(c) Give **two** ways in which the crop labelled **F** benefits from the practice (2 marks)

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17 A tomato crop infected by a disease shows the following symptoms:

- dry brown lesions on stems, leaves and fruits;
- fruits appear rotten and fall prematurely.

(a) Identify the disease. (1 mark)

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(b) Name the causal organism of the disease. (1 mark)

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(c) Give **three** control measures for the disease. (3 marks)

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18 The following is a picture showing a sorghum plant infested by a pest.



(a) Identify the pest. (1 mark)

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(b) Give **two** reasons for your answer in (a). (2 marks)

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.....

(c) State **two** control measures for the pest. (2 marks)

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19 The following is a picture showing a pasture crop infested by a weed.



(a) Identify the weed. (1 mark)

(b) Give **three** effects of the weed on the pasture crop. (3 marks)

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(c) State the appropriate growth stage at which the weed should be controlled. (1 mark)

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SECTION C (40 marks)

Answer any two questions from this section in the spaces provided after question 22.

20 (a) Explain **six** factors considered when designing a crop rotation programme. (6 marks)

(b) Explain **four** control measures of river bank erosion. (4 marks)

(c) Explain **two** ways in which each of the following factors influences crop production:

(i) relative humidity; (2 marks)

(ii) light; (2 marks)

(iii) temperature. (2 marks)

(d) Give **four** roles of 4-K clubs in Kenya. (4 marks)

