

Name: Index No:
Candidate's signature:
Date:

443/1
FORM 4 AGRICULTURE
Paper 1
TERM 3 2019
Time: 2Hours

Kenya Certificate of Secondary Education

INSTRUCTIONS TO CANDIDATES:

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

FOR EXAMINERS USE ONLY

SECTION	QUESTINS	MAX SCORE	CANDIDATES SCORE
A	1-16	30	
B	17-20	20	
C	21	20	
	22	20	
	23	20	
TOTAL		90	

SECTION A (30MARKS)

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

1. Give four advantages of intensive farming. (2mks)

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2. State four benefits of agroforestry to a maize crop. (2mks)

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3. Name the plant part used for vegetative propagation of each of the following plants.

- (i) Sisal (½ mk)

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- (ii) Pyrethrum (½ mk)

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- (iii) Sweet potatoes (½ mk)

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- (iv) Sugar cane (½ mk)

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4. State four cultural ways of controlling couch grass (2mks)

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5. Name three sources of underground water (1½mks)

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6. State three causes of blossom end of rot in tomatoes (1½mks)

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7. Give three qualities of a good green manuring plant (1½mks)
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8. State four reasons for practicing minimum tillage. (2mks)
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9. Name four farm records that should be kept by a poultry farmer. (2mks)
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10. Give three ways in which pastures are classified (1½mks)
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11. State four ways in which land reforms can be implemented in Kenya. (2mks)
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12. State four factors that determine the stage at which a crop is harvested. (2mks)
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13. Give four beneficial effects of weeds to a farmer. (2mks)
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14. Give four advantages of practicing crop rotation. (2mks)

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15. Name four methods of controlling pests. (2mks)

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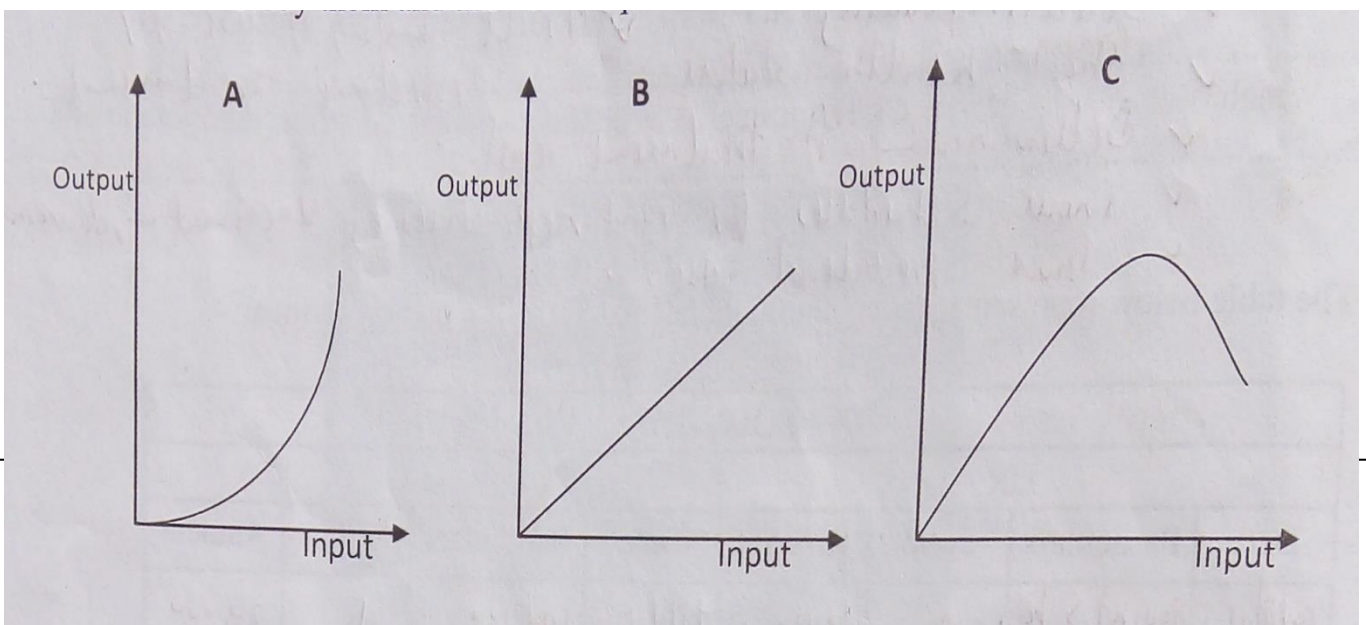
16. Distinguish between intensive hedgerow and border planting forms of agroforestry (2mk)

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SECTION B (20 MARKS)

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

17. The following illustrations show different production function curves in agricultural economics. Study them and answer the questions which follows;



(a) Identify the production function curves labeled A, B and C

A (1mk)

B (1mk)

C (1mk)

(b) What does the law derived from the production function labeled C state? (1mk)

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(c)

(i) Which one of the three production functions curves is rare in Agriculture(1mk)

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(ii) Give a reason for your answer in (i) above (1mk)

.....

18. The table below shows the population and gross domestic products of countries A and B

Country	Gross Domestic product (million Ksh)	Population (million)
A	1800	36
B	1200	15

(a) Calculate the per capita income for each country show your working (2mks)

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(b) Which of the two countries is more developed economically (1mk)

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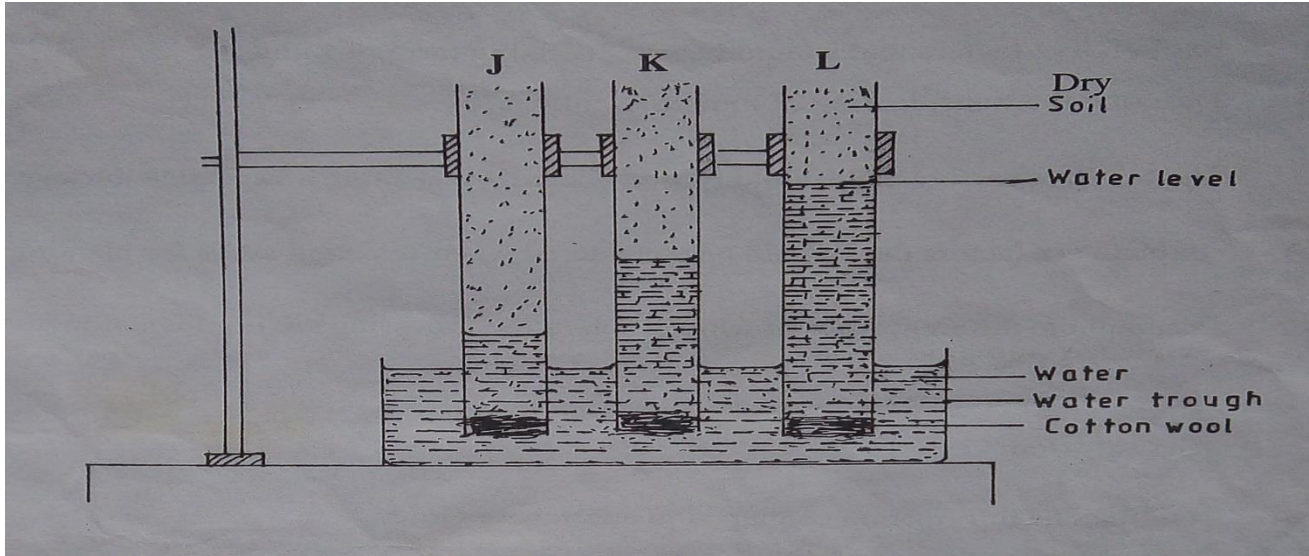
(c) Give a reason for your answer in (b) above (1mk)

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(d) How can agriculture increase the gross domestic product of a country (1mk)

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19. The diagram below illustrate investigation on a property of soil using soil samples labeled J, K and L.



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(b) What is the relationship between the soil property above and the size of soil particles? (1mk)

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(c) Which soil sample would be suitable for growing paddy rice? (1mk)

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(d) Give a reason for your answer in (c) above (1mk)

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20. The following is a list of nutrients: copper, calcium, nitrogen, molybdenum, zinc, phosphorus, carbon, sulphur, iron and magnesium. Which of the above nutrients are;

(a) Macro – nutrients (1mk)

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(b) Micro – nutrient (1mk)

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(c) Fertilizer elements (1mk)

(d) Liming elements (1mk)

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(e) Primary macro nutrients (1mk)

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SECTION C

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

21.

(a) Explain five functions of a live fence in a farm. (5mks)

(b) Describe various risks and uncertainties in crop farming (10mks)

(c) State five functions of young farmers clubs in Kenya (5mks)

22.

(a) Explain five factors that should be considered in farm planning (10mks)

(b) Explain the different ways in which each of the following environmental factors influence crop production.

(i) Wind (5mks)

(ii) Temperature (5mks)

23.

(a) Outline the information contained in a purchase order. (5mks)

(b) Describe the harvesting of tea (7mks)

(c) Explain the cultural methods of controlling soil erosion (8mks)