AGRICULTURE PAPER 1

EXPECTED QUESTIONS IN KCSE

Comprises 6 KCSE prediction set exams (Class of KCSE March 2022).

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For More e-learning resources contact Kenya Educators via the contacts above.

PREDICTION 1

Name: ..... Index Number ……..……

School: ..... Candidate's Signature ……

Date……

443/1
AGRICULTURE PAPER 1
FORM 4 2021
Time: 2 hours

Instructions to Candidates

- *Write your **name, index number, school** and **admission number** in the spaces provided.*
- *Sign and write the date in the spaces provided above.*
- *Answer **all** the questions ins section **A** and **B***
- *Answer any **two** questions in section **C***
- *Answers should be written in the spaces provided in this booklet.*

For Examiner's Use Only

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1 – 18	30	
B	19-25	20	
C		20	
		20	
	Total Score	**90**	

This paper consists of 13 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.

SECTION A (30 MARKS)

Answer all the questions in this section in the spaces provided

1. Give **two** ways that can be used to assess soil fertility (1 mark)

(i) ……

(ii) …….

2. List **four** methods that can be used to reclaim a water-logged land (2 marks)

(i) ……

(ii) …….

(iii) ……

(iv)…….

3. State **four** reasons why subsoiling is important as an operation of land preparation. (2 marks)

(i) ……

(ii) …….

(iii) ……

(iv)…….

4. Give **two** factors that influence the quality of farmyard manure. (1 mark)

(i) ……

(ii) …….

5. State **four** advantages of applying lime as a measure of improving soil condition (2 marks)

(i) ……

(ii) …….

(iii) ……

(iv)…….

6. State **three** functions of Nitrogen in crops. (1 ½ marks)

(i) ……

(ii) ……

(iii) ……

7. Give **four** factors that can increase seed rate in crop production. (2 marks)

(i) ……

(ii) ……

(iii) ……

(iv)……

8. State **four** uses of organic mulch in crop production. (2 marks)

(i) ……

(ii) ……

(iii) ……

(iv)……

9. List **four** characteristics of crops grown for green manure. (2 marks)

(i) ……

(ii) ……

(iii) ……

(iv)……

10. List **four** advantages of timely harvesting of crops. (2 marks)

(i) ……

(ii) ……

(iii) ……

(iv)……

11. State **two** advantages of intercropping (1 mark)

(i) ……

(ii) ……

12. State **two** conditions under which the opportunity cost is zero in a farming enterprise. (1 mark)

(i) ……

(ii) ……

(iii) ……

(iv)……

13. Give **four** advantages of sprinkler irrigation. (2 marks)

(i) ……

(ii) ……

(iii) ……

(iv)……

14. State **four** disadvantages of weeds in crop production (2 marks)

(i) ……

(ii) ……

(iii) ……

(iv)……

15. Give **three** reasons for the success of settlement schemes in Kenya after independence

(i) ……

(ii) ……

(iii) ……

(1½ marks)

16. State **four** factors affecting the efficiency of pesticides. (2 marks)

(i) ……

(ii) ……

(iii) ……

(iv)……

17. State **four** factors that influence solifluction. (2 marks)

(i) ……

(ii) ……

(iii) ……

(iv)……

18. Give a reason for carrying out the following practice

(a). topdressing established crops. (1 mark)

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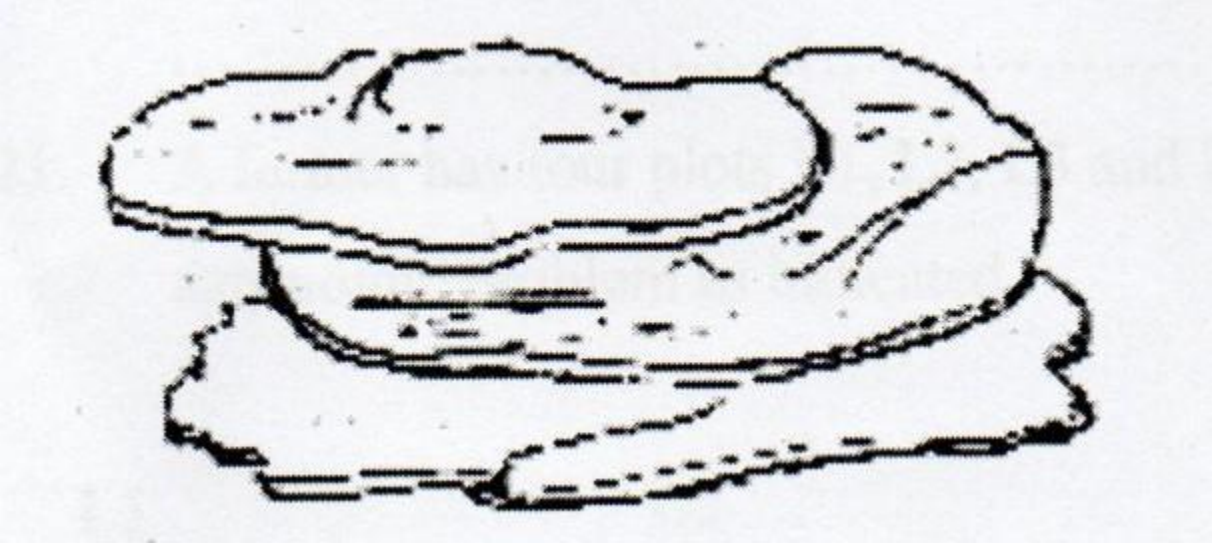
SECTION B (20 MARKS)

Answer all the questions in the spaces provided

19. Below is a diagram of a type of oil structure. Study it and answer the questions that follow.



(a) Identify the soil structure illustrated above. (1 mark)

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(b) Give **one** way in which the structure illustrated above limit crop production. (1 mark)

20. Study the illustration given below and use it to answer the questions that follow.

(a) Identify the operation illustrated above. (1 mark)

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(b) State **four** reasons for carrying out the operation named in (a) above (2 marks)

(i) ……

(ii) …….

(iii) ……

(iv)…….

21. A farmer has four plots L1, L2, L3 and L4 as shown in the table below. Each plot has an agronomic problem as indicated.

L1	**L2**	**L3**	**L4**
Infected with witch Weed (striga spp)	Infected with bacterial wilt	Deficient in Nitrogen	Prone to soil erosion

Plan a crop rotation programme for the first year in the four plots using the following crops maize, Irish potatoes, Rhodes grass and Beans (2 marks)

L1…….

L2…….

L3……..

L4……..

(b). Give reasons to justify the plan you have made in plots L2, L3 and L4. (3marks)

L2……..……

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L3……..……

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L4……

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22. Mr. Mulamba was advised to apply 150kgCAN/ha, while topdressing his maize crop. CAN contains 21%N. Calculate the amount of nitrogen applied/ha (4 marks)

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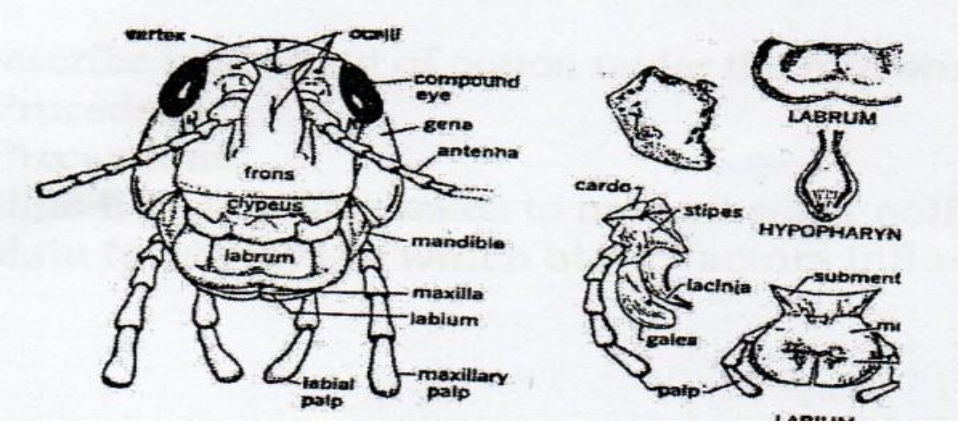
23. Observe the diagram below and answer the questions that follow.



(a). Identify the mode of feeding exhibited by a pest having such features. (1 mark)

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(b). Name any **two** pests with the above feeding habits. (2 marks)

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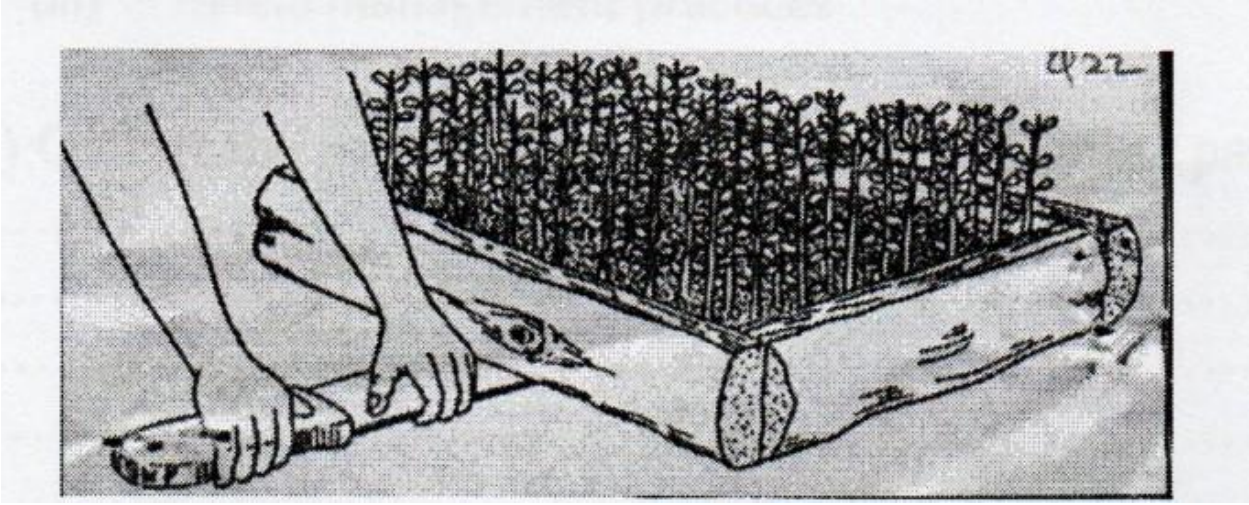
24. (a) The diagram below shows a nursery management practice carried out on a tree seedling. Study it and answer the questions that follow.



(a) Identify the management practice. (1 mark)

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(b). Give **two** reasons for carrying out the practice above. (2 marks)

(i)……

(ii). ……..

SECTION C (40 MARKS)

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

25. (a) Describe harvesting of cotton under the following sub-headings

i. Procedure (3 marks)

ii. Precautions (4 marks)

(b). Outline **five** measures taken to prevent water pollution. (5 marks)

(c). Explain **four** ways in which biotic factors influence crop production in Agriculture (8 marks)

26. (a). Explain five farming activities which may encourage soil erosion. (10 marks)
(b). Explain the importance of a nursery in crop propagation. (5 marks)
(c). Give the contributions of settlement schemes to agricultural development. (5 marks)

27. Describe the production of beans under the following subheadings:
(i). Field preparation (4 marks)
(ii). Planting (3 marks)
(iii). Field management practices. (5 marks)

(b). Outline the advantages of a mixed grass legume pasture over pure grass. (8 marks)

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PREDICTION 2

NAME: ……. INDEX NO: …….

SCHOOL……... DATE: ……

CANDIDATE'S SIGNATURE: ……

Kenya Certificate of Secondary Education (K.C.S.E.)
AGRICULTURE
PAPER 1
TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES:

(a) *Write your name and Index number in the spaces provided above.*
(b) *Sign and write the date of examination in the spaces provided above.*
(c) *This paper consists of THREE sections A, B and C.*
(d) *Answer ALL questions in Section A and B.*
(e) *Answer any TWO questions in section C.*
(f) *Answers should be written in the spaces provided.*
(g) *This paper consists of 8 printed pages.*
(h) *Candidates should check the question paper to ascertain that all the pages are printed as indicated and no questions are missing.*
(i) *Candidates should answer the questions in English.*

FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	MAX. SCORE	CANDIDATE SCORE
A	1 – 15	30	
B	16 – 20	20	
C		20	
		20	
Total Score		**90**	

SECTION A (30 MARKS)
Answer ALL Questions in the Spaces Provided

1. Differentiate between olericulture and pomoculture. (2mks)

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2. Give **four** reasons why a well drained soil is suitable for crop production. (2mks)

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3. State **four** reasons for deep ploughing during land preparation. (2mks)

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4. Name **four** types of water pumps which can be used on the farm. (2mks)

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5. State **four** characteristics that make a crop suitable for green manuring. (2mks)

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6. List any **four** pieces of information which should be shown on Health record. (2mks)

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7. Give **four** reasons for seed selection in crop production. (2mks)

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8. List **five** management practices carried out on a kale nursery two weeks after its establishment. (2½mks)

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9. Differentiate between rogueing and thinning. (2mks)

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10. Name **three** diseases that attack cabbage. (1½mks)

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11. State **four** ecological requirements of tomatoes. (2mks)

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12. List **four** factors that will lower demand of a commodity. (2mks)

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13. State **four** routine practices of care and management of trees. (2mks)

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14. State **four** ways by which a farmer can make efficient use of a pasture crop. (2mks)

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15. List **four** pieces of information found on a title deed. (2mks)

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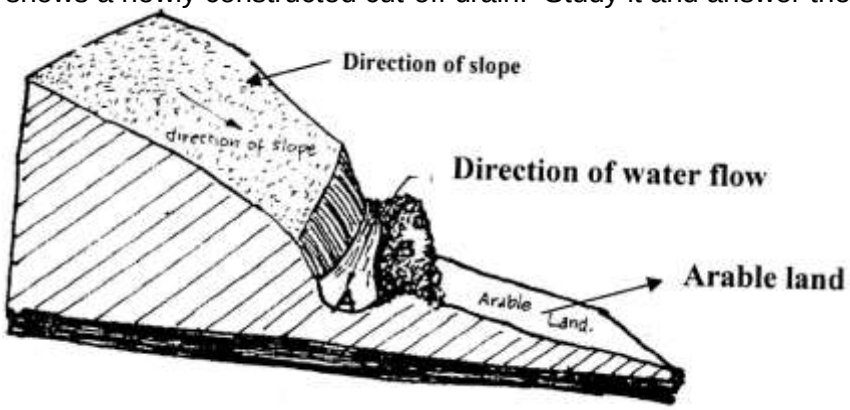
SECTION B (20 MARKS)

Answer all questions in the spaces provided in this section

16. The illustration below shows a newly constructed cut-off drain. Study it and answer the questions that follow.



(a) (i) How can part of the structure labeled B be stabilized after it has been constructed? (1mk)

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(ii) Identify the part of the cut-off drain labeled A. (1mk)

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(b) Describe the procedure of constructing a cut-off drain. (2mks)

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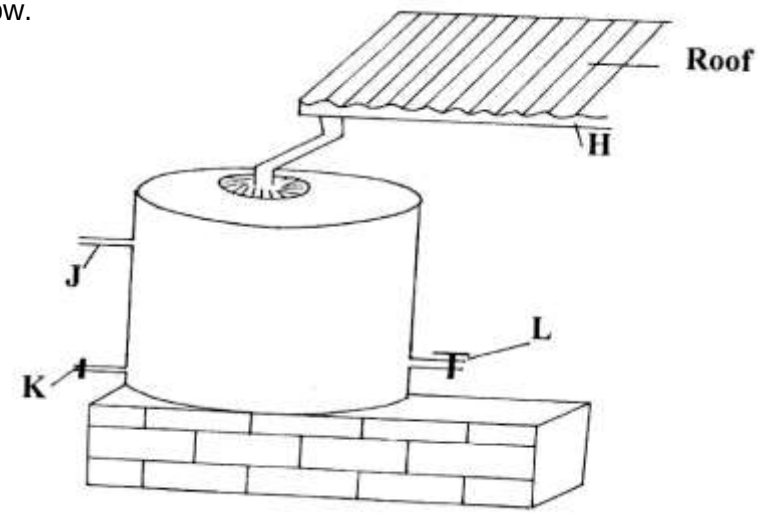
17. The diagram below shows a house water storage tank. Study it and answer the questions that follow.



(a) Identify the parts of the tank labeled:

H:…… (1mk)

K:…… (1mk)

(b) Give the function of the part labeled J. (1mk)

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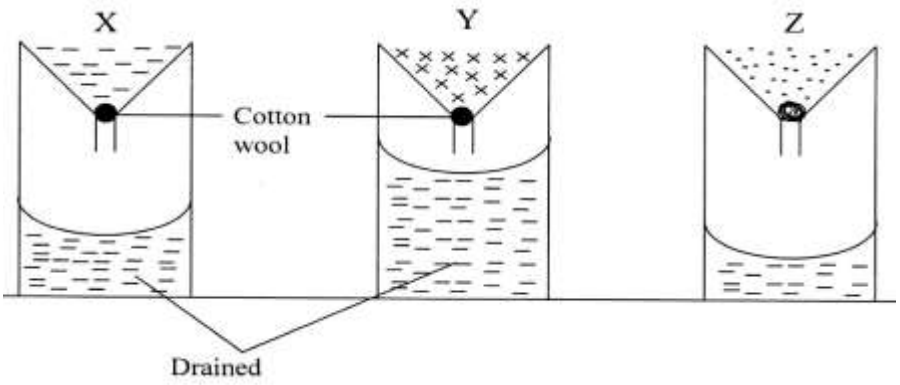
18. The experiment below was set to compare the porosity and water holding capacity of three different types of soils.



(i) Identify the soils in each of the following funnels labeled. (1½mks)

X:……..

Y:……..

Z:……..

(ii) Which of the types of soil can be said to have the highest porosity rate? (½mk)

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(iii) Give reasons for your answers in (ii) above. (2mks)

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(iv) Which type of soil would be suitable for planting paddy rice? (1mk)

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(v) Explain your answer in (iv) above. (1mk)

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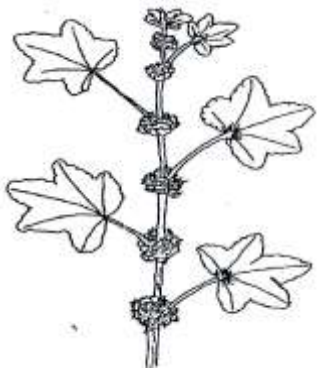
19. Below is a diagram of a Common East African Weed.



(i) Identify the weed illustrated above. (1mk)

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(ii) Give **one** harmful effect of the weed illustrated above to livestock. (1mk)

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(iii) State **two** methods of controlling the weed illustrated above. (1mk)

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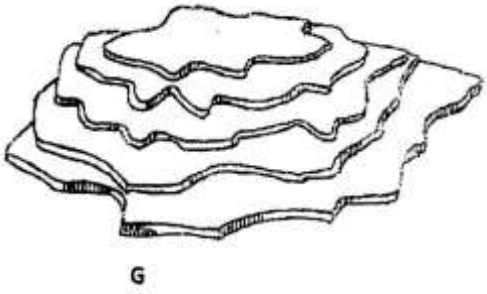
20. The diagrams below illustrate some soil structures. Study them and answer the questions that follow.



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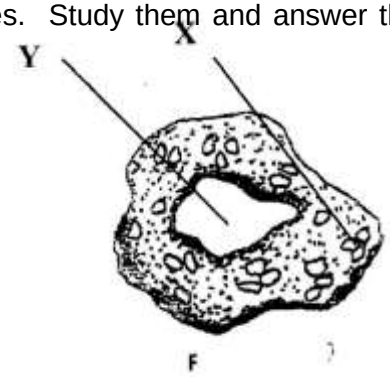

F

(a) Identify the soil structures **F** and **G**. (1mk)

F:……..

G:……..

(b) Name the part labeled **X** and **Y** in diagram **F**. (1mk)

X:……

Y:……..

(c) State **two** ways through which structure **G** influence crop production. (2mks)

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SECTION C (40 MARKS)

Answer any two questions from this section in the spaces provided

21. (i) Describe the field production of irrigated rice under the following sub-headings:

(a) Field preparation. (6mks)

(b) Water control (3mks)

(c) Field management (5mks)

(ii) Describe the precautions taken while harvesting:

(a) Pyrethrum (3mks)

(b) Tea (3mks)

22. (a) Name **two** types of inventory records in the farm. (1mk)

(b) Explain **six** importance of farm budgeting. (6mks)

(c) The inventory for Kipsinende farm as at 01.06.2011

	Kshs.
Cash at hand	5,000

Broilers	30,000
Maize in store	7,000
Calves	15,000
Dairy cattle	120,000
Buildings	75,000
Machinery	95,000
Land	200,000

On the same day, the following information was obtained from the farmers records

	Kshs.
Interest payable	2,000
Cash in the bank	20,000
Taxes payable	750
Wages payable	5,600
Bank loan	213,000
Egg sales on credit	10,000
Milk sales on credit	13,000
Farm inputs purchased on credit	19,800
Vegetable sales on credit	5,000

Required: Prepare a balance sheet for the farm. (13mks)

23. (a) Outline the process of treating water for domestic use using chemical treatment system. (12mks)

(b) Explain **five** physical factors that increases the rate of soil erosion in a farm. (5mks)

(c) Explain how monoculture leads to loss of soil nutrients. (3mks)

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PREDICTION 3

NAME……..IDEX NO……..

SCHOOL……..SIGN……DATE……

443/1

AGRICULTURE

PAPER 1

TIME: 2 HOURS

KCSE PREDICTION 3

Kenya certificate of secondary education (k.c.s.e)

INSTRUCTIONS TO CANDIDATES

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

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For Examiner's Use Only

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1−15	30	
B	16−19	20	
C		20	
		20	
	Total score	90	

SECTION A (30 MRKS)

1.Differentiate between olericulture and pomoculture as used in crop production .(1mrk)

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2.Give four method of farming (2mrks)

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3.Give two examples for each of the following types of cost incurred in broiler production .

a) Variable cost (2 marks)

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b) fixed cost (2 marks)

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4.Give **four** advantages of crop rotation .(2mrk)

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5.State **four** factors that that should be considered when classifying crop pest (2mrks)

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6. a) Name **four** pieces of information contained in a land title deed (2mks

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b) Name **two** forms of collective land tenure system. (1mk

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7. List **four** post – harvest practices that are carried out in maize production (2mks

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8. What is opportunity cost? (1/2 mk)

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9.Outline **four** ways of improving lab our productivity (2mks

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10. State **four** factors that can affect the efficiency of pesticides (2mks

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11 List **four** sites on which agro forestry trees can be established on a farm. (2mks

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12.Give **four** advantages of using seeds over vegetative materials. (2 mks)

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13.State **four** features that should be considered when choosing water pipes for use on the farm. (2 mks)

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14.Give **three** reasons why primary cultivation should be done early before the onset of the rains(1 ½)

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15. Give **four** suitable characteristics of plants used as green manure. (2mks)

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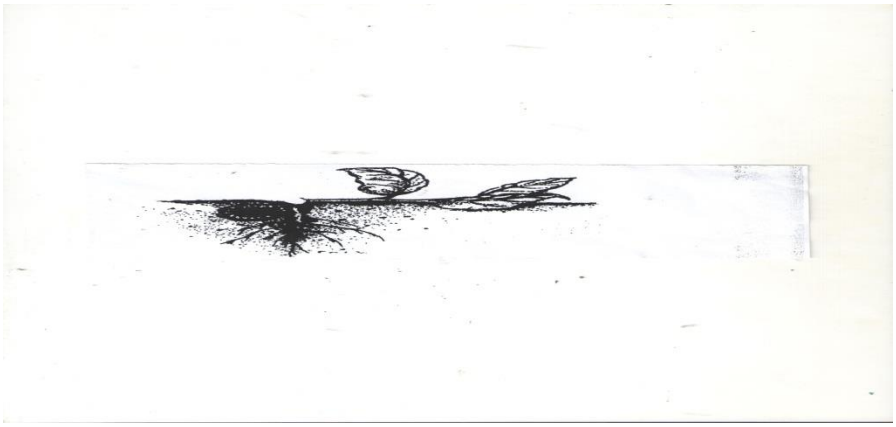
SECTION B: (20 marks)

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

16. The diagram below shows a pest and the damaged crop study it and answer the questions that follow.



a) Identify the pest illustrated above (1mk

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b) Explain **two** ways of controlling the pest (2mks

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c) State **two** ways in which the pest economically important. (2mks)

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17. a) Distinguish between straight and compound fertilizers. (1mk

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b) A farmer applied 200kg of C A N (20%N) per hectare maize crop. Calculate the amount of Nitrogen applied on his 5 hectare crop. Show your working (4mks

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18The diagram below shows a maize cob attacked by a certain disease. Study it and then answer the following questions.

a) Identify the disease (1 Mk)

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b) Name **two** causal organism of the disease. (1 Mk)

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c) State **three** cultural methods of controlling the disease. (3 Mks)

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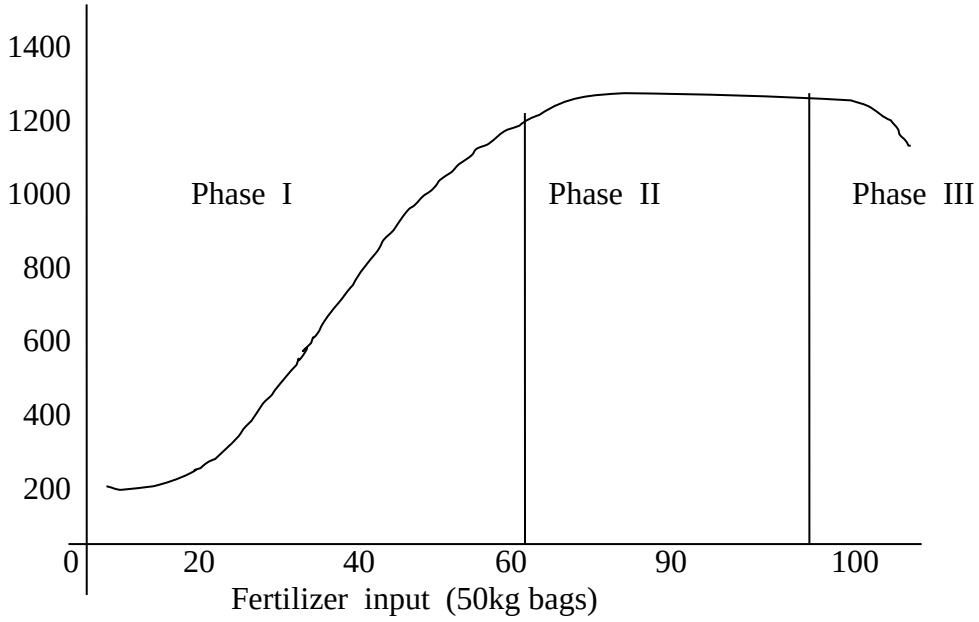
19. Below is a graphical representation of a law in agricultural economics. Study the graph carefully
and answer the questions that follow.



a) State the law illustrated by the graph (2mk

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b) Explain how each additional unit of fertilizer input relates to the total output of maize in **phases II and III .(** 2 mks)

Phase II

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Phase III (1mk

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c) State the importance of the law identified in (I) above to the maize farmer (1mk

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SECTION C (40MARKS)

Answer any two questions in this section in the spaces provided

20a) Explain **five** factors that should be considered in farm planning. (10 Mks)

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b) Describe transplanting of tomatoes seedling. (10 Mks)

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21Describe paddy rice production under the following sub-headings.

i) Land preparation (2 Mks)

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ii) Water control (2 Mks)

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iii) Fertilizer application (2 Mks)

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iv) Weed control (2 Mks)

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b) Explain how each of the properties of rainfall and light influence crop production.

i) Rainfall (8 Mks)

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ii) Light

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c) Explain **four** factors that should be considered when sitting a vegetable nursery. (4mks)

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22a) Describe **six** advantages of rotational grazing (6mrks)

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b)Explain **eigh**t ways in which soil fertility can be maintained (8mrks)

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c) Explain **six** reasons for pruning coffee.(6mrks)

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PREDICTION 4

Name……Index No……Class……..AdmNo……

443/1

AGRICULTURE

Paper 1

2 hours

KCSE PREDICTION 4

Kenya Certificate of Secondary Education

Instructions to candidates

Write your name and index number in the spaces provided above.

*This paper consists of **three** sections **A,B** and **C**.*

*Answer **ALL** questions in Sections **A** and **B** and any **TWO** questions from section. **ALL** answers must be written in the spaces provided after every question.*

The paper consists of 10 printed pages. Check to ascertain that all pages are printed.

Do not remove any pages from this booklet.

For Examiners' use only

Section	Questions	Maximum Score	Candidate's Score
A	1 -18	30	
B	19-22	20	
C		20	
		20	
	Total score	90	

SECTION A(30 Marks)

Answer all questions in this section in the spaces provide.

1. (a) Give two characteristics of intensive farming system. (1mk)

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(b) State two advantages of mixed farming. (1mk)

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2 State two forms in which water is available in the soil. (1mk)

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3 Give three agents of physical weathering. (1 ½ mks)

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4 Give two ways in which mulch control the soil erosion. (1mk)

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5 State four advantages of drip irrigation. (2mks)

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6 Give two benefits of adding organic manure to sandy soil. (1mk)

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7 Give four advantages of using grafting as a method of improving avocado fruits. (2mks)

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8 Give four reasons for using certified seeds for planting. (2mks)

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9 List three methods used to control weeds in pastures. (1 ½ mks)

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10 State two reasons for conserving forage crops. (1mk)

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11 Name two types of labour records kept in the farm. (1mk)

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12 State four causes of land fragmentation. (2mks)

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13 Outline four roles of trees in soil and water. (2mks)

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14 Give two reasons for earthing up tobacco crop. (1mk)

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15 List three examples of working capital employed by a farmer in the production of maize.(1 ½ mks)

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16 State three ways in which labour productivity can be improved. (1 ½ mks)

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17 (a) Give two reasons why nitrogenous fertilizers are suitable for top- dressing. (1mk)

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(b) Outline four deficiency symptoms of sulphur in crops. (2mks)

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18 State four symptoms of maize stalk borer infestation in maize. (2mks)

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SECTION B (20 Marks)

Answer all questions in this section in the spaces provided.

19 Study the illustration below and answer questions that follow.

(i) Identify the weed. (1mk)

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(ii) Give two harmful effects of the weed illustrated above. (2mks)

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(iii) State two reasons why tillage is sometimes preferred as a method of weed control.

(2mks)

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20 (a) Given that a maize crop is planted at a spacing of 75cm x 25cm, calculate the plant population in one hectare of land if two seeds are planted per hole.(Show your working). (3mks)

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(b) Give two reasons for having the correct plant population in the production of annual crops.

(2mks)

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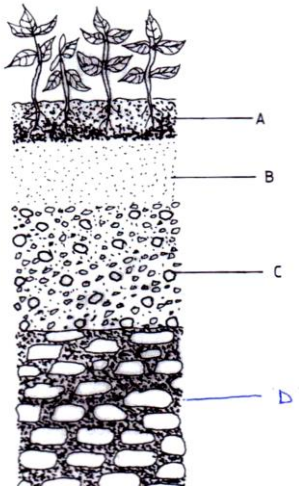
21 Study the illustration below and answer questions that follow.



(i) Identify the structure above. (1mk)

……

(ii) Name the parts labelled A,B,C and D above. (2mks)

A……

B……

C……

D……

(iii) Give four ways in which the above illustration influences crop distribution. (2mks)

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22 (a) Below is a diagram showing a crop infected by a disease. Study it and answer questions that follow.

(i) Identify the disease. (1mk)

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(ii) Name the category in which the disease is classified. (1mk)

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(iii) Give three control measures of the disease illustrated above. (3mks)

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SECTION C (40 Marks)

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

23(a) Describe the field production of maize under the following sub-headings.

(i) Seedbed preparation. (3mks)

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(ii) Planting (5mks)

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(b) State and explain six marketing functions. (12mks)

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24 (a)(I) Explain the precautions taken during the harvesting of pyrethrum. (3mks)

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(ii) Outline five factors that affect the rooting of cuttings. (5mks)

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(b) The following is a Demand and Supply schedule of eggs to teachers in a school.

Price per 30 kg crate (Ksh)	**Demand per day (No of crates)**	**Supply per day (No. of crates)**
330.00	5	47
310.00	11	46
290.00	15	44
270.00	19	42
255.00	24	39.5
240.00	29	36.5
225.00	33	33
210.00	37	29
200.00	43	27
190.00	49	20

(i) Using the same axis with price on the vertical axis, illustrate the demand and supply schedule curves for eggs. (6mks)

(ii) Determine the equilibrium price. (1mk)

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(iii) What would be the price if 45 trays were supplied? (1mk)

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(iv) Apart from price, outline four other factors that influence the demand of eggs in a market? (4mks)

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25 (a) State and explain six ways in which soil lose fertility. (12mks)

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(b) Outline eight factors considered in farm planning. (8mks)

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PREDICTION 5

NAME .....INDEX Number……..……

Candidate Sign…… Date……..…..

443/1

AGRICULTURE

PAPER1

2HOURS

KCSE PREDICTION 5

Instruction to candidates

- Write your name and index number in the space provided at the top of this page .
- Sign and write the date of the examination in the space provided above
- This paper consist of three section A, B, and C
- Answer all questions in section A and B
- Answer any two questions in section C
- All answers should be written in the spaces provided
- Candidate should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing .
- Candidate should answer the question in English

FOR EXAMINERS USE ONLY

SECTION	QUESTION	MAXIMUM SCORE	CANDIDATE SCORE
A	1-16	30	
B	17-20	20	
C		20	
		20	
	TOTAL SCORE	90	

SECTION A (30 MRKS)

Answer all question in this section in the space provided

1. Differentiate between olericulture and pomoculture as used in crop production .(1mrk)
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2. List the physical weathering agents in soil formation process (1 ½ mrks)
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3. Give four method of farming (2mrks)
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4. Give two examples for each of the following types of cost incurred in broiler production .
   a) Variable cost (2 marks)
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   b) fixed cost (2 marks)
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5. Give four advantages of crop rotation .(2mrk)
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6. State four factors that that should be considered when classifying crop pest (2mrks)
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7. Give three reasons why a water logged soil is unsuitable for most crops(1 ½)

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8. Give four advantages of tissue culture (2mrks)

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9. Outline four observable indictors of economic development of a nation (2mrks)

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10. Outline four indicators of well decomposed manure (1 ½)

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11. Give two conditions where opportunity cost does not exist (2mrks)

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12. Give four management practice that promote high herbage yields in pasture production (2mrks)

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13. Give three reasons why primary cultivation should be done early before the onset of the rains(1 ½)

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14. Give two examples of farm records that are general in nature .(1mrk)

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15. Give four role of nitrogen in plants (2mrks)

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16. Give four benefits of possessing a land title deed (2mrks)

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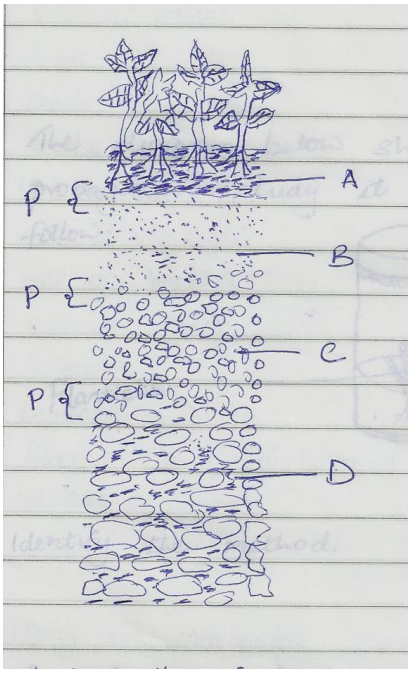
SECTION B (20 MRKS)

Answer all the questions in this section in the spaces provided

17. The diagram below illustrates a feature observed after digging the soil several metres deep Study the diagram carefully and answer the question that follow



a) Identify the feature that the diagram above represents in the study of soil (1mrk)

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b) What is the name given to the part labeled p(1mrk)

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c) Give a reason why part b is also reffered to as layer of accumulation (1mrk)

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d) State two ways in which the knowledge of the above feature would be of benefit to farmer (2mrks)

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18The diagram below shows a method of crop propagation .Study it and answer the questions that follow

a) Identify the method (1mrk)

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b Name two crops that can be propagated using this method.(1mrk)

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c. Give three ingredients used when preparing the tissue culture.(1 ½)

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19.The following information was obtained from the records of Mr Juma's farm for the year ended on 31st march 2011

Particulars	kshs
Opening Valuation	100,000
Calves	72,000
Hired Labour	21,000
Sales of milk	13,000
Sales of cereals	33,000
Rent	9,000
Feed	5,300
Seed	1,700
Fertilizers	4,700
Sales of Vegetables	9,300
Sales of poultry	1,800
Sales of fruits	700
Pesticides	1,250
Depreciation	650
Repair and Maintenance	950
Interest on loans	200
Closing Valuation	9,0000

a) using the information given above , prepare a profit and loss account for Mr Juma's farm for the year ended 31st March (7mrks)

b) Giving a reason, State whether Mr. Juma's farm made a profit or loss (½ mark)

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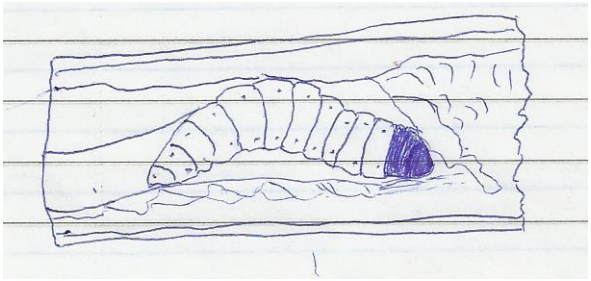
20) The diagram below shows a maize stalk infected by a certain pest .Study it and answer the questions that follow .



a) Indentify the pest (1/2)

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b) Apart from maize, name another crop attacked by the pest named above (½ mark)

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c) Give three cultural measures that can be applied to control the pest (3mrks)

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SECTION C (40MARKS)

Answer any two questions in this section in the spaces provided

21a) Describe six advantages of rotational grazing (6mrks)

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c) Explain eight ways in which soil fertility can be maintained (8mrks)

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d) Explain six factors considered when drawing a farm plan (6mrks)

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22a) Explain the factors that influence the type of irrigation to be used in a farm (8mrks)

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d) Explain six reasons for pruning coffee.(6mrks)

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e) Describe 6 ways in which lab our productivity can be improved on a farm (6mrks)

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23a) Describe five importance of agro -forestry in soil and water conservation (6mrks)

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b) Describe the procedure of silage making (10mrks)

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c) Describe five effect of over application of nitrogenous fertilizer(5mrks)

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PREDICTION 6

NAME ……..…… **ADM NO……** **CLASS……**

SCHOOL …… **SIGN……** **DATE……..……**

443/1
AGRICULTURE
PAPER 1
TIME: 2 HOURS

KCSE PREDICTION 6

443/1
AGRICULTURE
PAPER 1
TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

- *Write your name, index number and class in the spaces provided above.*
- *This paper consists of **THREE SECTIONS, A, B** and **C.***
- *Answer all questions in sections **A** and **B** and two questions in section **C.***
- *All your answers must be written in the spaces provided in this question paper.*

FOR EXAMINERS USE ONLY

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATES SCORE
A	1-17	30	
B	18-21	20	
C	22-24	40	
TOTAL		**90**	

This paper consists of 12 printed pages. Candidates should check the question paper to ascertain that all pages are printed as indicated and that no pages are missing

SECTION A (30 MARKS)

Answer all questions from this section

1. What do the following terms mean? (1 ½ mks)
   a) Gross domestic product (G.D.P)

   ……

   ……

   b) Gross national income (GNI)

   ……

   ……

   c) Per capita income

   ……

   ……

2 a) What does the term opportunity cost in farming mean? (1mk)

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   b) State two situations when opportunity cost is nil or zero (2mks)

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3. List four advantages of individual owner tenure system (2mks)

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4. State two ways to show how check dams reduce soils erosion (1mks)
5. Identify four soil constituents. (2mk)

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6. Mention four ways of classifying herbicides (2mks)

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7 (a) List two ways of controlling smut disease in the field. (1mk)

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(b) Name any two pests that attack bean pods in the field (1mk)

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8. What four factors should a farmer consider for effective control of pests in the field …….

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(2mks)

9. Mr. Wotsula Applied 150kg N.P.K 25:20:15 to his one hectare of groundnuts in his Kakamega

farm. Calculate how many kilograms of each of the fertilizer element he applied. (3mks)

10.State five marketing functions (2 ½mks)

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11. State five functions of cooperative societies (2½ mks)

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12. List three characteristics of green manure crops (1 ½ mks)

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13.Name three types of water pumps to be used on the farm. (1 ½ mks)

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14. Name four species of trees commonly used in agroforestry (2mks)

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15. List four factors that determine the competitive ability of weeds (2 mks)

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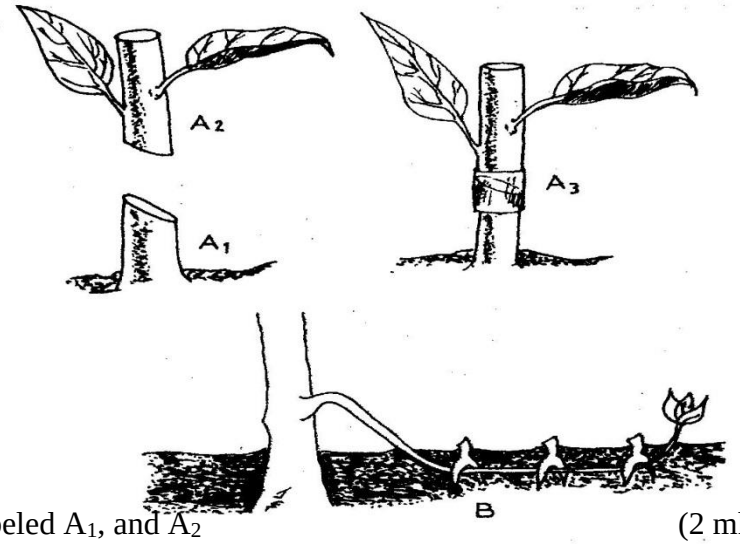
SECTION B: (20 MARKS)

Answer all questions in this section

16. The diagrams labeled A_1, A_2, A_3, and B below illustrate materials and methods of vegetative propagation. Study them and answer the questions that follow.



(a) Name the parts labeled A_1, and A_2 (2 mks)

A_1 - …….

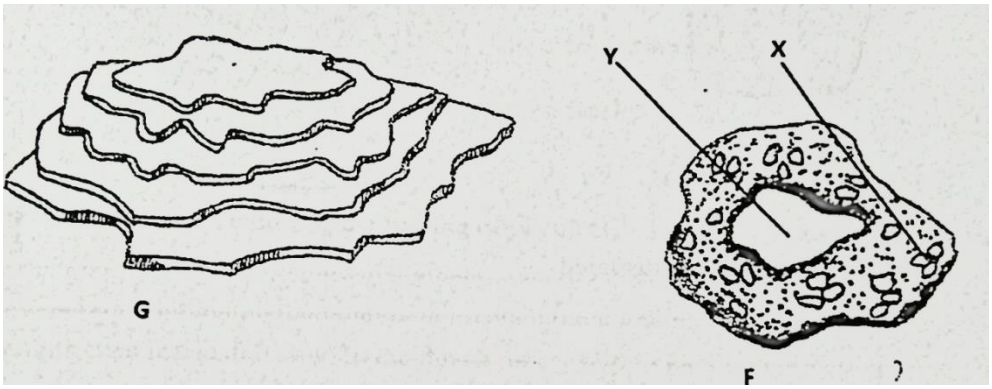
A_2 - …….

(b) Name the methods of propagation illustrated in diagrams A_3 and B (2 mks)

A_3 ……..….

B- …….

17. The diagram below illustrates some soil structures. Study it and answer the questions that follow.



a) Identify the soil structures F and G (2mks)

…….

b) Name the parts labeled X and Y in diagram F (1mk)

…….

…….

…….

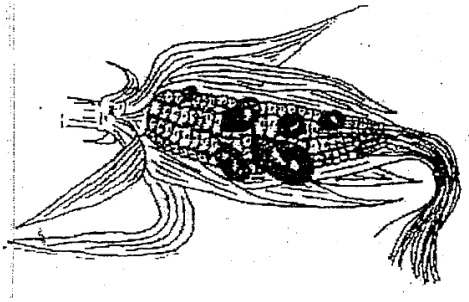
c) Sate two ways through which structure G influences crop production (2mks)

…….

…….

18. Below is an illustration of a maize cob attacked by smut disease. Study it carefully and

answer the questions that follow:



a) Beside what is visible on the maize cob, state two other symptoms of the disease (2mks)

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b) State three control measures of the above disease. (3mks)

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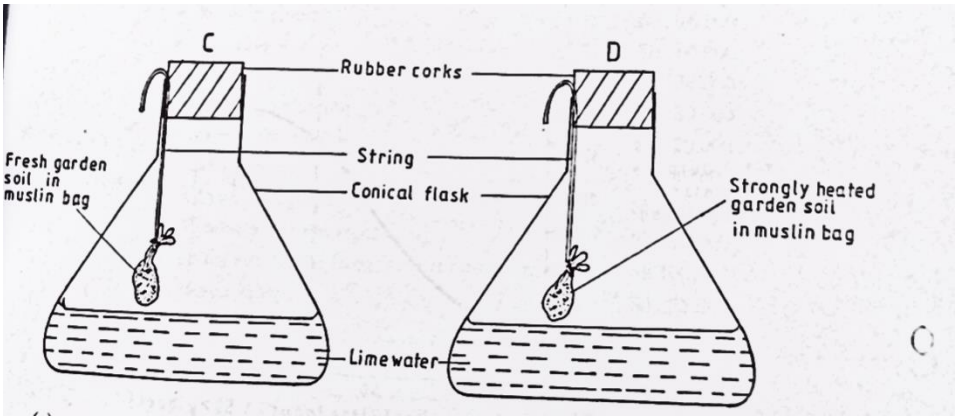
19. The diagram below shows a set up used to study an aspect of soil. The set up was left undisturbed for five hours. Study it and answer the questions that follow.



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

…….

b) State one observation that was made in each of the flasks labelled C and D (2mks)

C- …….

D-…….

c) Give a reason for your answer in (b) above (2mks)

……

d) Apart from the aspect under the study above, state any other soil component that could be studied (1mk)

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SECTION C: (40 MARKS)

Answer any TWO questions from this section

20. The following table shows an illustration of production of maize (in tons) using various levels of inputs.

Units of variable input (Man hours)	Total output of maize (Tons)	Marginal Product	Average product
0	0		
1	6		
2	18		
3	33		
4	40		
5	45		
6	48		
7	48		
8	40		

a) Work out the marginal product and average product and fill in the table (9mks)

b) On the same graph paper, plot the graph showing total output, marginal product and average product against variable input (8mks)
c) On the graph draw lines to show the following zones (3mks)
   i) Increasing return production function
   ii) Decreasing return Production function
   iii) Diminishing return production function

21(a) Outline five benefits of trees and shrubs to the economic wellbeing of Kenyans (5mks)

b) Explain 7 ways on how farmers overcome risks and uncertainties in a farming business (7mks)

c) Explain the factors that influence the type of irrigation to be used in a farm (8 mks)

22 (a) State the principles involved in planning a crop rotation programme.(6mks)

(b) Discuss the production of maize under the following subheadingsMaize

I Seedbed preparation (2mks)

ii) Planting (2mks)

iii) Weed control (2mks)

iv) Field management practices (2mks)

v) Pests control (2mks)

vi) Disease control (2mks)

vii) Harvesting (2mks)

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