AGRICULTURE PP1 2024 KCSE MOCK

TOP RANK KCSE PREDICTION MOCK 2024 SERIES

TOPLIGHT PUBLISHERS KENYA PANEL WORK

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NAME………………………………………………...ADM……………………..

SCHOOL………………………………………………INDE……………………..

DATE…………………….SIGN…………………TARGET…………………..

AGRICULTURE FORM 4
PAPER 1 (443/1)
TIME 2 HOURS
SERIES 1 2024 KCSE TOP RANK PREDICTION MOCK

INSTRUCTIONS TO CANDIDATES

i.   This paper consists of THREE sections **A**, **B** and **C**
ii.   Answer **ALL** questions in **sections A** and **B** and **Any TWO** questions in **section C**
iii.   Answer to **ALL** questions **MUST** be written in the spaces provided.

For Examiners' Use Only

Section	Questions	Maximum Score	Candidate's Score
A	1 - 17	30	
B	18 - 21	20	
C	22 - 24	40	
TOTAL SCORE		**90**	

FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

SECTION A (30marks)
Answer ALL questions in this section in the spaces provided

1. Give four aspects of rainfall that affect agricultural production. (2mks)

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2. State four factors considered when choosing water pipes for use in the farm. (2mks)

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3. List down four types of water erosion. (2mks)

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4. Give three classes of weeds on the basis of growth cycle. (1½mks)

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5. Define the term pest. (1mk)

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6. State four reasons why burning of bushes is discouraged as a method of land clearing. (2mks)

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7. Outline four factors considered when grading tomatoes. (2mks)

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8. State four problems associated with marketing agricultural produce (2mks)

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9. Give three maintenance practices carried out on water tanks. (1 ½ mks)

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10. Give four characteristics of agroforestry trees (2mks)

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11. Define the following terms. (2 mks)

(i) Nursery bed

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(ii) Seed bed

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(iii) Pricking out

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(iv) Hardening off

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12. List four financial documents used in the farm   (2mks)

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13. List down four factors of production.   (2mks)

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14. Name the parts harvested for each of the following crops.   (1 ½ mks)
 (a) Onions

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(b) Carrots

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(c) Coffee

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15. Name four main methods of controlling pests in the farm. (2mks)

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16. Mention three ways of applying water to crops (1 ½ mks)

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17. Differentiate between pomoculture and olericulture (1mk)

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SECTION B (20 MKS) Answer ALL questions in this section

18.a) A farmer in Kabondo was advised to apply 80 kg of nitrogen to his maize plantation during top dressing. The fertilizer available was calcium ammonium nitrate (20% N) .Calculate the amount of this fertilizer in kilograms the farmer should purchase (2mks)

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b. At what stage should the farmer top dress his maize crop (1mk)

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c. State three methods of fertilizer application (3mks)

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19.The diagram below illustration an investigation on property of soil using samples labeled J,K and L
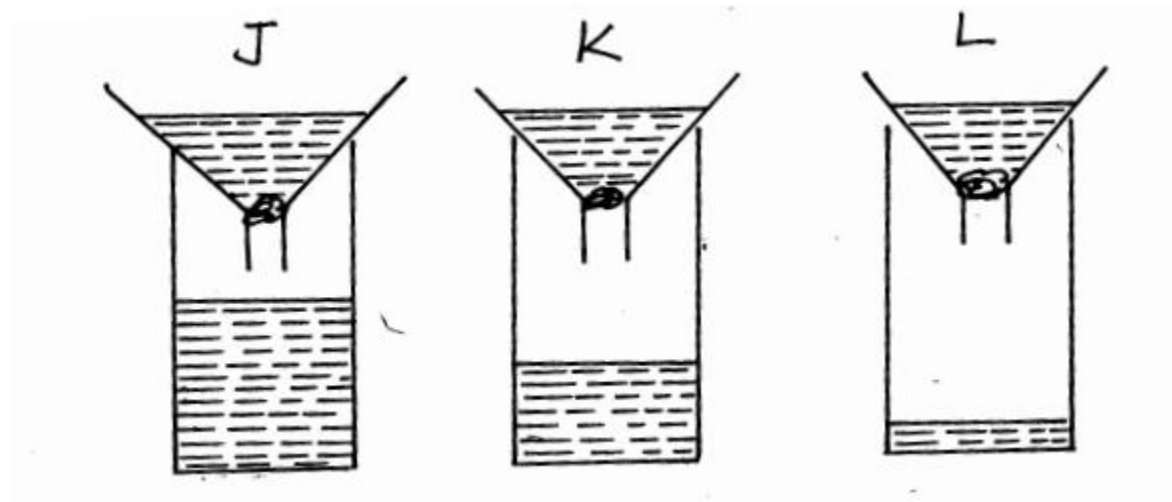
 a.) If the level of water drained into the test tubes were observed after two hours, name the property of soil being investigated   (1mk)

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

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

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d.) Name the type of soil labeled   (2mks)

J.

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L.

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20. Study the illustration below of making compost manure and answer the questions that follow.

Pit	Pit	Pit	Pit	Pit
A	B	C	D	E

→ Field
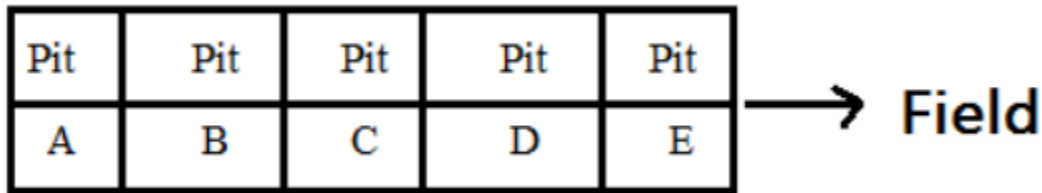
(a) Name the method of making compost manure illustrated above.   (1mk)

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(b) Name the other method of making compost manure.   (1mk)

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(c) State three qualities of well decomposed compost manure.   (3mks)

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21. The following diagrams illustrate two methods of soil sampling.Study them and answer questions that follow .
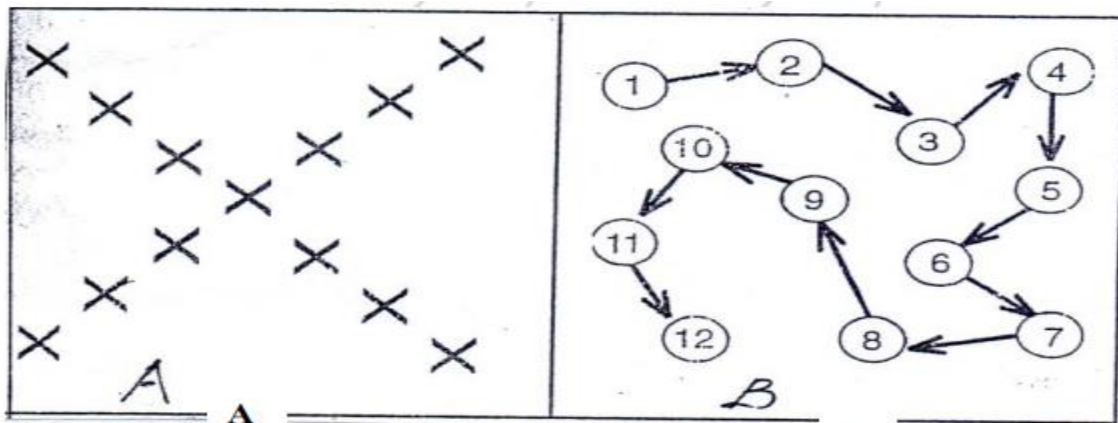
(a) What do diagrams A and B represent?   (2 marks)

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B

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(b) Describe the procedure of soil sampling. (3 marks)

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SECTION C (40mks) Answer only two questions in this section

22. (a) Describe seven cultural or biological methods of soil and water conservation. (7 marks)

(b) Describe the importances of keeping farm records . (7 marks)
(c) Explain six objectives of the million acre scheme of land settlements. (6 marks)

23[a] Describe the growing of dry bean seeds under the following sub headings.

(i) Selection and preparation of planting materials. (3marks)

(ii)Planting. (4marks)

(iii) Weeding. (3marks)

(b) Describe the environmental conditions that may lead to low crop yields (10 marks)

24. (a) Explain seven factors that influence seed rate in crop production. (7mks)
(b) Outline seven safety precautions observed when using herbicide in the farm. (7mks)
(c) Explain briefly any six factors that affect the quality of hay a farmer may produce in the farm. (6mks)

FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

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NAME………………………………………………………...ADM…………………….

SCHOOL……………………………………………….INDE…………………….

DATE…………………….SIGN…………………TARGET…………………….

AGRICULTURE FORM 4
PAPER 1 (443/1)
TIME 2 HOURS
SERIES 2 2024 KCSE TOP RANK PREDICTION MOCK

INSTRUCTIONS

- Write your **Name, Index Number, School, Date, Admission Number** and **signature** 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** question in Section **C**.

- **ALL** answers **must be** written in the spaces provided in the question paper.

FOR E XA MINER'S U S E ONL Y

Section	Questions	Maximum Score	Candidate's Score
A	1 - 16	30	
B	17 - 20	20	
	21	20	
	22	20	
C	23	20	
Total Score		**90**	

This paper consists of 12 printed pages. Each candidate should confirm that all the pages are printed and that no page is missing.

SECTION A: (30 MARKS)

FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

1. State **THREE** influences of soil pH on crop growth. (1½ Marks)

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2. State **FOUR** factors considered when selecting planting materials. (2 Marks)

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3. Name **FIVE** sources of agriculture credit in Kenya (2½ Marks)

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4. State **FOUR** reasons for pruning in coffee. (2 Marks)

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5. Give **TWO** limitations of chemical weed control. (1 Mark)

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6. List any **FOUR** basis for classification of crop pests (2 Marks)

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7. Name **FOUR** disadvantages of mulching. (2 Marks)

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8. State **TWO** importance of tissue culture. (1 Mark)

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9. State **FOUR** factors that influence crop rotation programme. (2 Marks)

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10. Give **FOUR** nursery management practices. (2 Marks)

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11. State **FOUR** factors that determined spacing of crops (2 Marks)

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12. Differentiate between a *complete* and *incomplete fertiliser.* (2 Marks)

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13. Give **FOUR** objectives of land tenure reform in Kenya (2 Marks)

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13. List **THREE** post-harvest practices carried out in the growing of maize. (1 ½ Marks)

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14. Name **THREE** materials required during budding. (1½ Marks)

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15. Give **THREE** methods of forage conservation. (1½ Marks)

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16. Give **THREE** disadvantages of using plastic pipes. (1 ½ Marks)

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SECTION B (20 MARKS)

Answer all questions in this section in the spaces provided

17. The diagrams labelled **A** and **B** below illustrate some of the methods used to propagate some field crops. Study the diagrams and use them to answer the questions that follow.
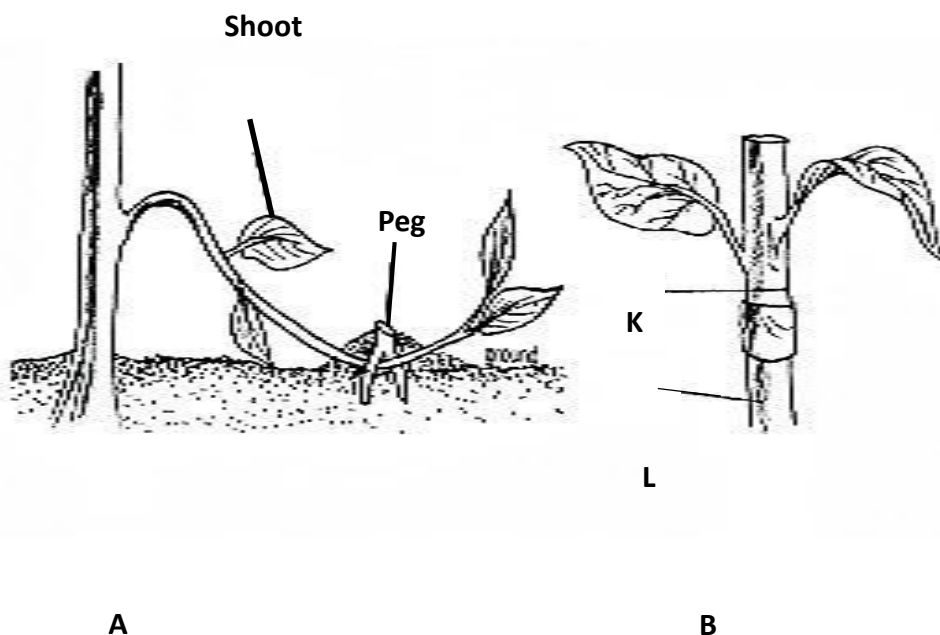
a) Identify the two methods of propagation. (2 Marks)

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. b) Name **one** crop each propagated using methods **A** and **B** above. (2 Marks)

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FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

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. c) Name the parts labelled **K** and **L** in **B**.   (1 Mark)

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18. A farmer has a 2 hectare piece of land on which to grow wheat. His farm records for wheat production for 9 year period is as follows.

Year	Fertilizer Applied (50kg bags)	Wheat output (90kg bags)
1999	0	4
2000	2	10
2001	4	28
2002	6	42
2003	8	52
2004	10	60
2005	12	66
2006	14	66
2007	16	64

a) (i) Using the appropriate scale draw a graph on the space provided below to show the relationship between input and output. (3 Marks)
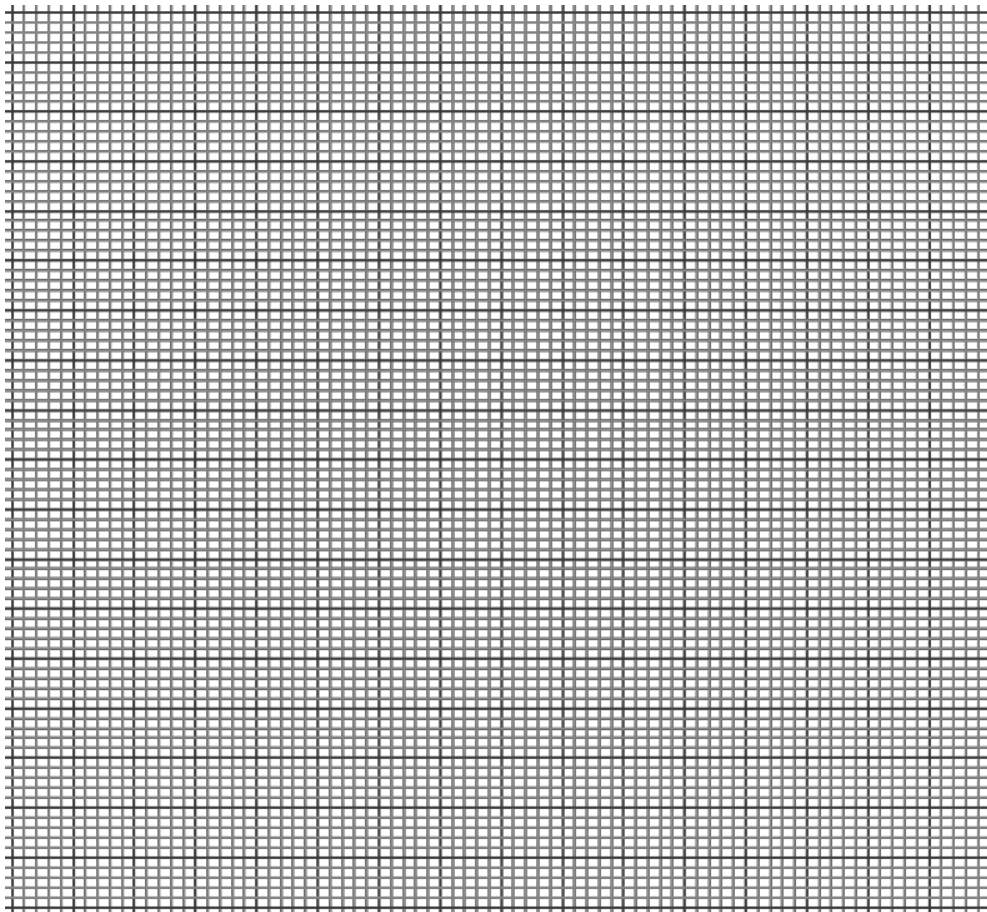
(ii) From the graph above, how many bags of wheat would be produced if the farmer applied 9 bags of fertilizer. (½ Mark)

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(iii) Calculate the farmer's marginal product for the year 2001.   (½ Mark)

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b) Assuming the average price of wheat is Kshs. 1,000.00 per bag and the cost of fertilizer is Kshs. 1,200.00 a
   bag. Calculate the gross income for the year 2002.   (1 Mark)

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19. Study the illustration below of a tomato fruit as observed in field production.
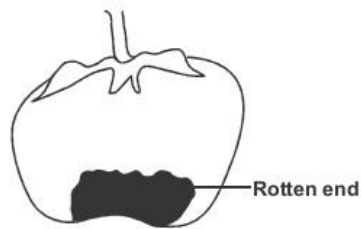
i) Identify the condition illustrated above.   (1 Mark)

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.. ii) State **TWO** conditions that predispose a tomato plant to the conditions stated in (a) above   (1 Mark)

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. iii) Suggest **FOUR** possible ways of controlling the condition stated in (a) above   (2 Marks)

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. iv) Name **TWO** other tomato diseases   (1 Mark)

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20. The diagrams below show certain varieties of a field crop. Study them and use them to answer the questions that follow.
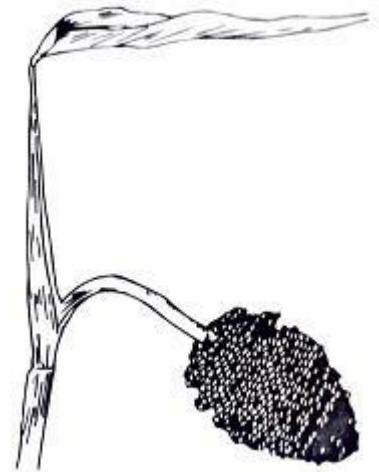
A   B

a) Identify the field crop shown above.   (1 Mark)

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b) What is the advantage of **B** over **A**?   (1 Mark)

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c) Describe the harvesting of the field crop shown above.   (3 Marks)

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SECTION C (40 Marks)

Answer two
questions from this
section.

21. (a) Outline the factors to consider when selecting a farm enterprise. (12 Marks) (b) Explain any **four** cultural methods of soil erosion control (8 Marks)

22. (a) State and explain **THREE** factors that influence choice of the type of irrigation to be used.   (6 Marks) (b) Sate **SIX** importance of farm records. (6 Marks) (c) Describe the various management practices carried out in the nursery bed. (8 Marks)

23.(a) State and explain **FIVE** factors considered when choosing seed rates. (10 Marks) (b) Explain **FIVE** reasons why crop rotation is important. (10 Marks)

NAME……………………………………………………...ADM…………………….

SCHOOL……………………………………………INDE…………………….

DATE…………………….SIGN…………………TARGET…………………….

AGRICULTURE FORM 4
PAPER 1 (443/1)
TIME 2 HOURS
SERIES 3 2024 KCSE TOP RANK PREDICTION MOCK
KENYA CERTIFICATE OF SECONDARY EDUCATION (KCSE)

Instructions to candidates:

1. Write your name and index numbers in the spaces provided.
2. Sign and write the date in the spaces provided.
3. This paper has THREE sections A,B and C.
4. Answer ALL the questions in sections A and B.
5. Answer any TWO questions in section C.
6. Candidates should check and ascertain that all the pages are printed as indicated and that no question is missing.

For Examiner's use only

Section	Questions	Maximum Score	Candidate's score
A	1-15	30	
B	16-18	20	
C	19-21	20	
		20	
	Total	90	

This paper has **6** Pages

SECTION A :30MKS

1. State **two**causes of blossom-end rot in tomatoes(1mk)

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2. State **four** harmful effects of weeds in agriculture.   (2mks)

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3. State **four** characteristics of extensive system of farming.   (2mks)

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4. State **three** agricultural practices that pollute water $(1^1/_2\text{mks})$

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5. (a)   What is meant by the term conveyance of water?   (1mk)

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(b)   State **two** ways of conveying water.   (1mk)

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6. (a) Distinguish between a nursery bed and a seedling bed. (2mks)

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(b) State **four** management practices carried out on pasture. (2mks)

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7. Give **four** methods of land clearing. (2mks)

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8. Give **three** limitations of tissue culture. ($1^1/_2$mks)

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9. (a) Distinguish between the budding and grafting (2mks)

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10. Name **two** classes of crops based on light duration. (1mk)

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11. List **two** tertiaryoperations carried out during land preparation. (1mk)

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12. State **four** disadvantages of shifting cultivation. (2mks)

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13. (a)   Name **three** methods of pruning. $(1^1/_2 mks)$

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(b)   Name **three** forms of collective land tenure system $(1^1/_2 mks)$

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14. State **four** cultural methods of pest control (2mks)

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15. (a)   Define the following terms.   (2mks)

    i.   Intercropping

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    ii.   Mixed cropping

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(b)   State **two** importance of mulching.   (1mk)
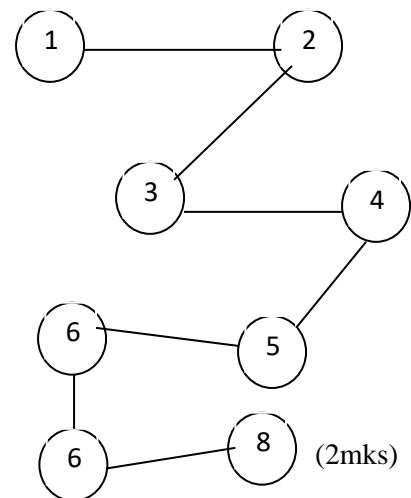
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SECTION B (20 MARKS)

Answer all the questions in this section.

16. The diagram below shows methods of soil sampling. Study them and answer the questions that follow.
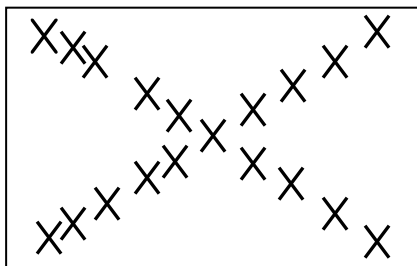
a.   Identify the method A and B.   (2mks)

A

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B

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    b. Describe the procedure followed during soil sampling.   (5mks)

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17. (a)   Farmer was advised to apply 150kg of C.A.N while top dressing a maize crop. C.A.N contains   21%N. Calculate the amount of nitrogen application per hectare. (show your working)   (3mks)

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(b) State **two** forms in which nitrogen as a plant nutrient is absorbed by plants   (2mks)

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(c) State **two** characteristics of CAN fertilizer(2mks)

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18. The diagram below illustrates a method of preparing compost manure. Study the diagram and answer the questions that follows.

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│  X  │────────│  Y  │────────│  X  │
└─────┘        └──┬──┘        └─────┘
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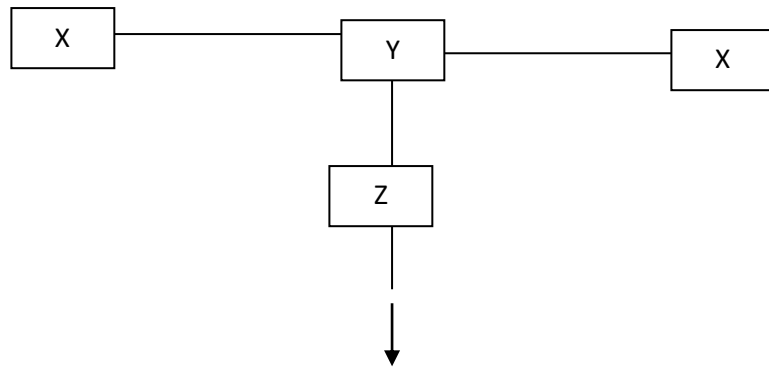
Field

     a. Identify the method illustrated.   (1mk)

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     b. How long should the materials stay in x and y   (1mk)

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     c. Explain **four** factors to consider when selecting a site for the preparation of a compost pit. (4mks)

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SECTION C: 40 MARKS

Answer any two questions from in section.

   19. (a) Describe five ways in which soil looses fertility   5mks)

(b)   State five factors determining spacing a crop.   (5mks)

(c)   Give **five** precautions observed when using agro-chemicals   (5mks)

    (d) State five Agricultural Services Available to the Farmer: (5mks)

   20. (a)Explainfiveimportance of farm records in agriculture.   (5mks)

(b)   Describe any five physical methods of soil and water conservation. (5mks)

(c) The following information was obtained from Bukura Farm inventory on1st January.

i). Use the information provided to prepare a balance sheet for Bukura Farm.   (7mks)

FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

ITEM	VALUE (Kshs)
Layers	80,000
Beef cattle	240,000
Beans in store	40,000
Cash at hand	15,000
Land	550,000
Machinery	250,000
Buildings	310,000
Calves	75,000
Wages payable	5,000
Interest payable	8,000
Bank loan	725,000
Milk sale on credit	12,000
Chicken sale on credit	6,000
Cash in the bank	52,000
Purchase of fertilizer on credit	26,000
Tax payable	3,000

ii) What is the value of the networth. (1 mk)

iii) State whether the business is solvent or insolvent, give a reason for your answer. (2 mks)

21. (a) Describe cabbage production under the following subheadings.

    i. Ecological requirements. (2mks)

    ii. Land preparation. (4mks)

    iii. Field management practices. (4mks)

(b) Give **five** importance of a budget to the farmer (5mks)

(c) Outline **five** characteristics of a fertile soil. (5mks)

NAME……………………………………………………...ADM…………………….

SCHOOL………………………………………………INDE…………………….

DATE…………………….SIGN…………………TARGET…………………….

AGRICULTURE FORM 4
PAPER 1 (443/1)
TIME 2 HOURS
SERIES 4 2024 KCSE TOP RANK PREDICTION MOCK
INSTRUCTIONS TO CANDIADATES

1. Write your name, admission number and class
2. This paper contains **three** sections
3. Answer all question in section **A** and **B**
4. In section **C** answer any **two** questions
5. Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing
6. This paper has 10 printed pages
7. Candidates must answer all the questions in English

For examiner's use only

Section	Questions	Maximum score	Candidate score
A	1 -16	30	
B	17 -20	20	
C		20	
		20	
	Total score	90	

SECTION A 30 MARKS. ANSWER ALL QUESTION

1.Name **four** methods of farming**.**   (2marks)

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2.State **two** crop production practices that can be carried out to maintain optimum plant population.   (1mark)

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3.What is a micro catchment?   (1mark)

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4.State any **four** details contained in a delivery note.   (2marks)

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5(a) What is meant by the term Agroforestry?   (1mark)

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 (b) State **four** ways in which land reform can be implemented in kenya   (2marks)

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6. State **two** examples for each of the following types of cost incurred in poultry production

 a) variable cost   (1marks)

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b) Fixed cost   (1 mark)

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7. Name **three** sources of underground water   (1½marks)

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8.State **three** causes of blossom end of rot in tomatoes   (1½marks)

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9. Give **four** qualities of a good green manuring plant   (2marks)

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10.State **two** pests that attack cabbages   (1 mark)

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11.Distinguish between pinching out and coppicing as used in crop production   (2marks)

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12. State **four** advantages of growing maize in rows instead of broadcasting.   (2marks)

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13.What is integrated pest management   (1mark)

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14.Name **four** types of water pumps which can be used in the farm.   (2marks)

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15.Name **four** factors that influence soil erosion.   (2marks)

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16a)**.** List **four** problems associated with nomadic pastoralism in Kenya.   (2marks)

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b) Name **four** factors of production in agriculture.   (2marks)

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SECTION B 20 MARKS (ANSWER ALL QUESTION)

17.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   (2marks)

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

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

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

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18.The diagram below shows an experiment set up using soil type Q, R and S and the observations made after 24 hours. Study the diagram below and answer the questions that follow.
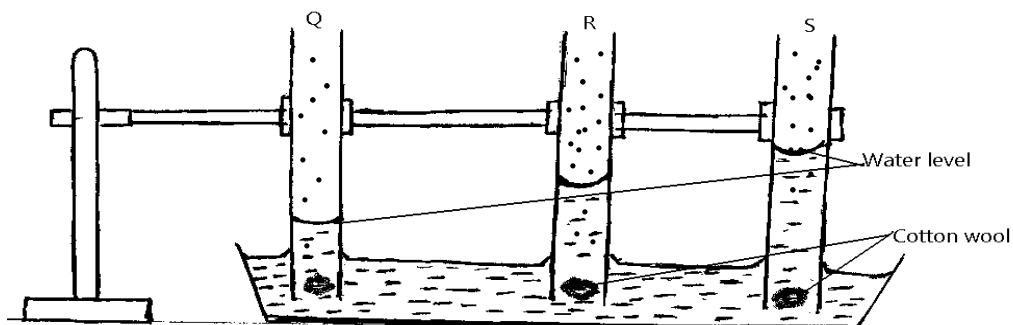
(a). The experiment set up above is designed to study what?   (1mark)

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 (b). Name the soil types S and Q   (2marks)

S

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Q

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(c). What are the characteristic texture of soil type R and S?

R ……………………………………………………………………………….… (1 mark)

S ……………………………………………………………………………………...(1 mark)

19.a) Identify two methods of plucking table formation in tea establishment   (2marks)

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b). Diagram below show crop production practices. Study and answer question that follow.

A

B

Rooting medium

Developing roots
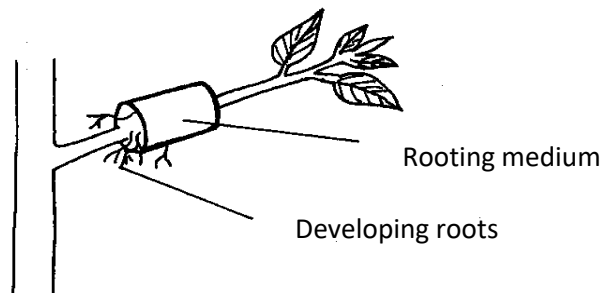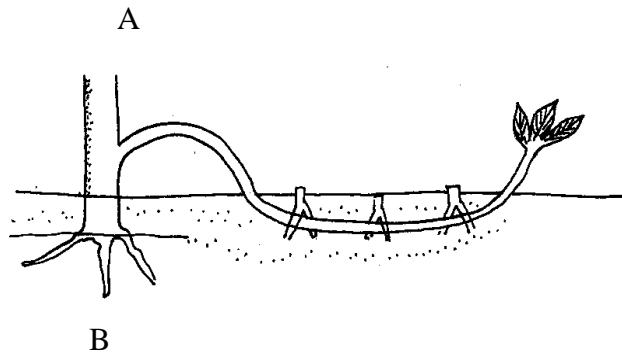
i. Identify the crop propagation methods illustrated above

A………………………………………………………………………………… (1 mark)

B…………………………………………………………………………………. (1 mark)

ii. State one factors that would promote root formation in the propagation method in a (B) above

……………………………………………………………………………………(1mark)

20. The diagram below show weeds. Study them and answer question that follow.

A   B
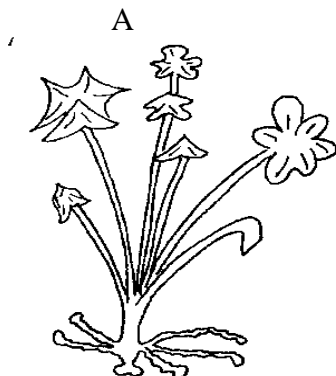
a) Identify the weeds illustrated in diagrams A and B   (2marks)

A.…………………………………………………………………………………………………..

B.…………………………………………………………………………………………………..

b) State one reason why the weed labeled A is difficult to control.   (1mark)

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c) State two economic importance of the weed labeled B in Agriculture.   (2marks)

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SECTION C 40 MARKS. (ANSWER ONLY TWO QUESTIONS)

21.a) Explain **four** physical methods of pest control   (8 marks)

   b) Outline **five** importance of draining agricultural land.   (5 marks)

    c) Explain **seven** safety precautions observed when spraying herbicides.   (7 marks)

22.a) Describe the characteristics of ideal agroforestry tree species   (8 marks)

   b) State **four** factors that influence the type of irrigation to be used in a farm.   (4 marks)

   c) Outline four advantages of rotational grazing   (4 marks)

   d) State four principles governing formation of cooperatives   (4 marks)

23.(a) Describe **five** ways through which soil loses fertility   (10 marks)
     (b) Describe field production of Nappier elephant grass under the following sub heading
              (i) Seed bed preparation   (6 marks)
              (ii) Utilization   (4 marks)

NAME……………………………………………………...ADM…………………….

SCHOOL…………………………………………….INDE…………………….

DATE…………………….SIGN…………………TARGET…………………….

AGRICULTURE FORM 4
PAPER 1 (443/1)
TIME 2 HOURS
SERIES 5 2024 KCSE TOP RANK PREDICTION MOCK

INSTRUCTIONS TO CANDIADATES

8. Write your name, admission number and class
9. This paper contain three sections and 11 pages
10. Answer all question in section A and B
11. In section C answer any two questions
12. Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions is missing
13. Candidates must answer all the questions in English

For examiner's use only

Section	Questions	Maximum score	Candidate score
A	1 -17	30	
B	18 -21	20	
C		20	
		20	
Total score		90	

SECTION A (30marks).

FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

Answer all Questions in this section

1. Name **two** branches of horticulture.   (1marks)

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2. List **two** advantages of mixed farming.   (1 mark)

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3. State **two** advantages of metal water pipes over plastic pipes in piping water in the farm.   (1 mark)

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4a) State **two** characteristics of extensive farming system.   (1marks)

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b) List **four** characteristic of fertile soil   (2maks)

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5. Give **four** advantages of raising cabbage seedlings in a nursery before transplanting   (2maks)

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FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

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6. State **four** benefits of a land title deed to a farmer (2marks)

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7. State **four** factors which should be considered when deciding type of irrigation on crop production

(2marks)

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8. Give **two** ways by which overstocking encourage soil erosion. (1mark)

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9. State **two** physical agent of weathering (1mark)

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10. State **four** objectives of the million-acre scheme. (2marks)

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11. State **four** symptoms of attack by the bean fly in bean production. (2marks)

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12. State any **four** measures that are taken to minimize water pollution in the farm. (2 marks)

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b). Outline **four** ways through which soil loses its fertility. (2 marks)

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13. List **Four** practices that achieve minimum tillage. (2 marks)

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14.a) List **four** farming practices that can be carried out to increase the amount of light harnessed by crops. (1 marks)

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15. State **two** ways of preparing planting materials before planting   (1mark)

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16. State **four** ways of increasing labour efficiency on the farm   (2marks)

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17. State **four** factors which may affect the quality of Hay.   (2 marks)

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SECTION B (20 MARKS)

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

18. The diagram below shows an experiment set up using three different sets of soil, and the observations made after 24hrs. Study the diagram and answer the questions that follow.
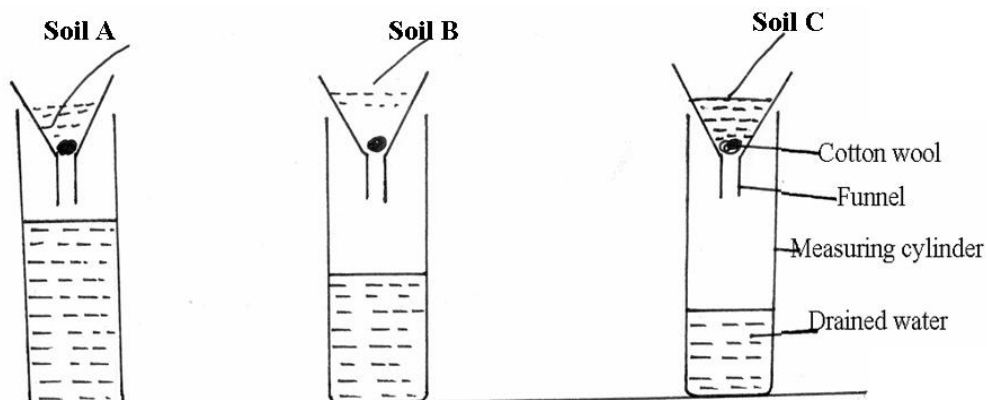
(a)What is the experiment set up above designed to study.   (1 mark)

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....

(b)Name soil types B   and **C**.   (2 marks)

C

....

....

B

....

....

(c)What are the characteristic textures of the soil type **A** and **C**   (2 marks)

 Soil type A

....

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Soil type C

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19.The diagrams below show a practice carried out on various crops on the farm. Study them carefully and answer the questions that follow.
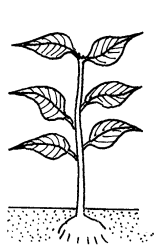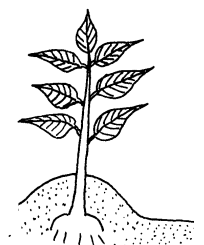
A   B

Before   after

a) Identify the farm practice represented by B. (1mark)

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b) State one the importance of the above practice in the following crops. (3marks)

   i.   Maize

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   ii.   Irish Potatoes

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   iii.   Tobacco

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c) At what stage of growth should the above practice be carried out in maize. (1mark)

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20.Study the farm record below and the questions that follow:

Date	Disease symptoms	Animals affected	Drug used	Cost of treatment	Remarks

(a)Identity of th.e record (1mark)

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(b) State **two** different information that should be entered in the remarks column (2marks)

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FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

(c) Give **two** importance of keeping the farm record illustrated above   (2marks)

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21.The diagram below illustrates common weeds in arable land, study them carefully and answer the questions that follow.
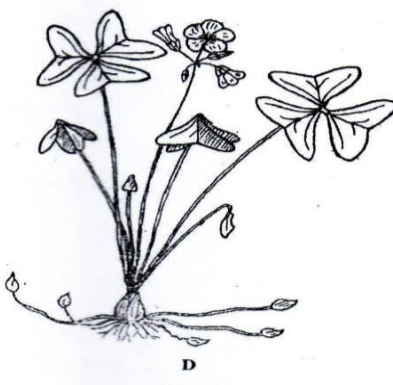
a) Identify the weed labeled C and D   (2marks)

C

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……….

D

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b). Classify the weed labeled C according to plant morphology.   (1 mark)

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c). Explain the reason why it is difficult to control the weed labeled D.   (2 marks)

FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

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SECTION C ANSWER ONLY TWO QUESTION 40 MARKS

22.Describe the management of cabbages under the following sub-headings.

  (a) Nursery preparation and establishment   (7 marks)
  (b) Management of seedlings in the nursery   (5 marks)
  (c) Transplanting of seedlings   (8 marks)

23a) Explain **five** ways government policy contributes to Agriculture.   (5 marks)

 b) Explain any **five** factors considered when spacing crops.   (10marks)

 c) Describe the advantages of mixed grass -legume pasture over a pure grass pasture   (5marks)

24a) State and explain four ways in which soil loses its fertility   (8marks)

 b) State the precautions that should be observed when harvesting cotton.   (4marks)

 c) Explain **four** importance of crop rotation.   (8marks)

NAME……………………………………………………..ADM…………………….

SCHOOL…………………………………………………INDE…………………….

DATE…………………….SIGN…………………TARGET…………………….

AGRICULTURE FORM 4
PAPER 1 (443/1)
TIME 2 HOURS
SERIES 6 2024 KCSE TOP RANK PREDICTION MOCK

Instructions to students

a) *Write your name and Admission number in the spaces provided at the top of this page .*

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

c) *Answer all questions in sections A and B.*

d) *Answer any two questions in section C.*

e) *All answers should be written in the spaces provided.*

f) *This paper consists of 8 printed pages.*

g) *Candidate should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.*

h) *Candidate should answer the questions in English.*

For Examiner's Use Only

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1-19	30	
B	20-22	20	
C	23	20	
	24	20	
	25	20	
	TOTAL SCORE	90	

SECTION A (30 MARKS)

Answer all the questions in this section.

1. Name two field practices that are carried out to obtain optimum plant population in a crop field. (1 Mark)

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2. List four post-harvest practices that are carried out in maize production. (2 Marks)

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3. State two effects of high rainfall intensity to farming. (1 Mark)

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4. State four ways in which a farmer can improve the structure of water logged clay soil. (2 Marks)

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5. List four factors that determine the type of irrigation used in crop production. (2 Marks)

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6. State four symptoms of potassium deficiency in crops. (2 Marks)

FOR MARKING SCHEME CALL SIR ABRAHAM 0729 125 181

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7. State any four disadvantages of using non capped multiple stem pruning in coffee.   (2 Marks)

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8. state two practices which are carried out during hardening off in seedlings.   (1 Mark)

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9. Give two conditions in economics when opportunity cost is zero.   (1 Mark)

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10. State four advantages of organic farming.   (2 Marks)

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11. State four disadvantages of organic mulch in crop production.   (2 Marks)

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12. State four problems that may be brought up by hardpan in crop land.   (2 Marks)

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13. State four pieces of information contained in land title deed.   (2 Marks)

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14. Differentiate between seedbed and a seedling bed.   (2 Marks)

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15. Give four reasons why it is difficult to control Sodom apple weed in crop fields.   (2 Marks)

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16. Give two reasons for imposing quarantine on imported planting materials.   (1 Marks)

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17. Give four benefits of top dressing in management of grass pasture.   (1 Marks)

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18. Define the following terms as used in crop production.   (1 Mark)
    (a) trellishing

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    (b) stooking.

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19. Outline two ways of controlling damping off diseases on vegetable seedlings in nursery. (1 Mark)

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Section B (20 Marks)

Answer all questions in the spaces provided.

20. The diagram below illustrates a maize crop plant and its produce. Study the diagram and answer the questions that follow.
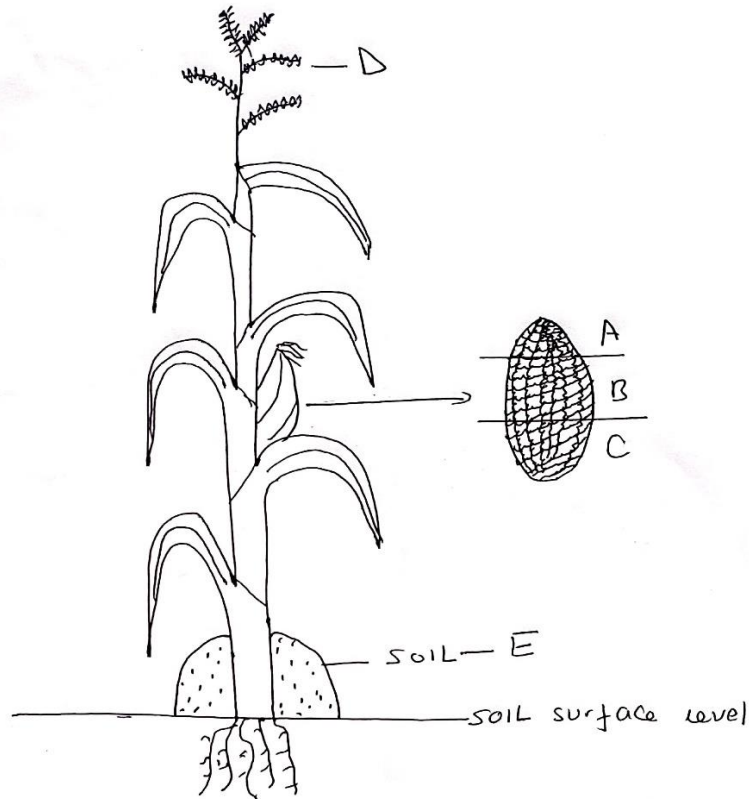
(a) Name one disease that attacks the part of the plant labelled D. (1 Mark)

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(b) From which section of the produce labeled A, B and C should seeds for planting be

obtained? ($\frac{1}{2}$ Mark)

………

………

(c) Give one reason for the answer given in (b) above. (1 Mark)

………

………

(d) Which practice is done on part E? ($\frac{1}{2}$ Mark)

....

....

(e) State the importance of the practice in the following crops.

    (i)   Maize $(\frac{1}{2}$ Mark)

....

....

    (ii)   Irish potato $(\frac{1}{2}$ Mark)

....

....

    (iii)   At what stage of growth should the above practice be carried out on maize? $(\frac{1}{2}$ Mark)

....

....

(f) A plot measuring 4 M by 3 M was prepared for planting maize at a spacing of 30 cm by 90 cm. Calculate the plant population in the plot. (Show your working). $(1\frac{1}{2}$ Mark)

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21. The diagram below shows a silo. Study it carefully and answer the questions that follow.
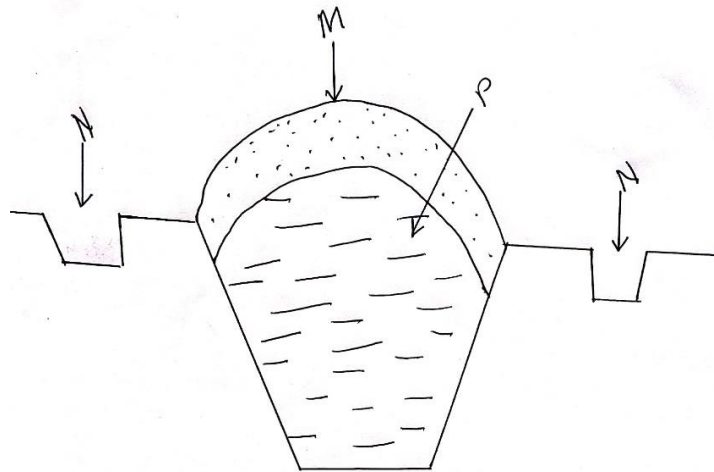
(a) Identify the type of silo shown. (1 Mark)

…………………………………………………………………………………………………..

…………………………………………………………………………………………………

(b) Identify the part labeled P. ($\frac{1}{2}$ Mark)

………………………………………...……………………………………………………

…………………………………………………………………………………………………

(c) State the use of the part labeled (1 Mark)

M-

…………………………………………………………………………………………………

………………………………………………………………………………………………...

N-

…………………………………………………………………………………………………

…………………………………………………………………………………………………

(d) Give two ways of ensuring that anaerobic conditions are achieved during silage making

process. (2 Mark)

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(e) Name three other types of silage that are used in the farm. $(1\frac{1}{2}$ Mark)

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(f) Outline three ways in which silage losses occur during ensiling. $(1\frac{1}{2}$ Mark)

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22. Use the information on the table below to answer the questions that follow.

Fertilizer input Units	Maize yield Bags	Maize product Bags
0	50	_
1	62	12
2	66	4
3	68	2
4	69	1
5	69	0

The cost unit of fertilizer is sh 1500 per unit and price of maize is sh 1200 per bag.

(i)   At what unit of fertilizer input should the farmer be advised to stop applying more fertilizer to the maize.   (1 Mark)

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……

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

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……

(iii)   Calculate the marginal return at the point of optimum production.   (1 Mark)

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……

(iv)   State the law of diminishing returns in a crop production function process.   (1 Mark)

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……

(v)   Name and explain three ways of combining inputs in production.   (1 Mark)

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Section C (40 Marks)

Answer only two questions. Each question carries 20 Marks.

23. (a) Describe effects of land fragmentation and sub-division.   (6 Marks)

b)What advantages does a farmer holding a title deed have over one who does not have a title deed.   (4 Marks)

c) Describe the cultural methods a farmer would employ to control crop diseases.   (10 Marks)

24. (a) State the importance of the following during chemical water treatment.

(i) Filtration at water intake. (1 Mark)

(ii) Softening. (1 Mark)

(iii) Chlorination (1 Mark)

(iv) Coagulation and sedimentation. (2 Mark)

(b) State seven roles of a farm manager. (7 Marks)

(c) Explain four ways a farmer can adjust to uncertainty and risks. (8 Marks)

25. (a) Discuss the classification of pesticides according to their mode of action. (10 Marks)

(b) Outline any seven general post-harvesting practices carried out on crops. (7 Marks)

(c) Give three pieces of information a dairy farm manager should collect for planning

purposes. (3 Mark)

NAME…………………………………………………………...ADM…………………….

SCHOOL……………………………………………………INDE…………………….

DATE…………………….SIGN…………………TARGET…………………….

AGRICULTURE FORM 4
PAPER 1 (443/1)
TIME 2 HOURS
SERIES 7 2024 KCSE TOP RANK PREDICTION MOCK

Instructions to Candidates

- *Write your **name, index number** in the spaces provided.*
- *This paper has three sections A, B and C.*
- *Answer **all** the questions in section **A** and **B** in the spaces provided.*
- *Answer any **two** questions in section **C**.*

For Examiner's Use Only

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1 – 13	30	
B	14 – 17	20	
C	18	20	
	19	20	
	20	20	
	Total Score	**90**	

SECTION A (30 MARKS)

Answer All the Questions in This Section in the Spaces Provided

FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

1. State **two** biotic factors that are useful in agricultural production. (1 mark)

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2. Give **four** reasons why it is important to stake tomatoes. (2 marks)

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3. State **two** methods of utilizing sorghum as a forage crop. (1mark)

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4. Give **four** signs that could enable a farmer to identify compost manure that is ready
(2 marks)

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5. List **four** farming practices that may help to achieve minimum tillage on a farm. (2 marks)

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6. Give **four** reasons why seed selection is important in the establishment of crops**.** (2 marks)

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7. Give **four** reasons for keeping breeding records in a dairy farm.   (2 marks)

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8. State **two** characteristics of shifting cultivation.   (1 mark)

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9. State **four** factors that determine spacing of crop.   (2 marks)

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

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11. State **two** characteristics of a large scale farming system.   (2 marks)

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12. State **four** steps followed in land adjudication. (2 marks)

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13. State **two** physical agents of weathering. (1 mark)

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SECTION B (20 MARKS)

Answer All the Questions in the Spaces Provided

14. The diagram below illustrates one of the arable field crops. Study it carefully and answer the questions that follow.
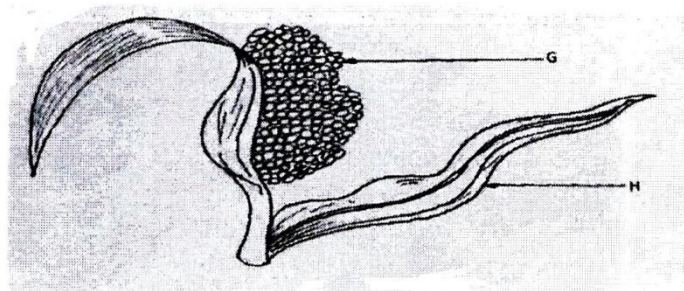
a) Identify the field crop. (1 mark)

....

....

b) State the common disease that attack the parts labeled G and H (2 marks)

G

....

....

H

....

....

c) Name a variety of the crop that is resistant to birds attack.   (1 mark)

....

....

....

d) State one cultural method to control the diseases named in (b) above.   (1 mark)

....

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....

15. (a) Name the deficient nutrient element in plants showing the following symptoms;
    (i) Stunted growth, die back of the plant tips, leaves roll up and chlorosis along margins of younger
         leaves.   (1 mark)
....

....

    (ii) Yellowing of leaves appears first on lower leaves; leaves turn brown and fall prematurely,
          stunted growth.   (1 mark)
....

....

    (iii) Leaf curling, yellowing of leaves tips and edges of leaves scorched and has small mottles.
                                                                                     (1 mark)
....

....

    (iv) Purpling of leaves, stunted growth, slender stalks and lateral buds remain dormant.
                                                                                     (1 mark)
....

....

(b) The diagram below show a practice out on various crops on the farm. Study them carefully and answer the questions that follow.
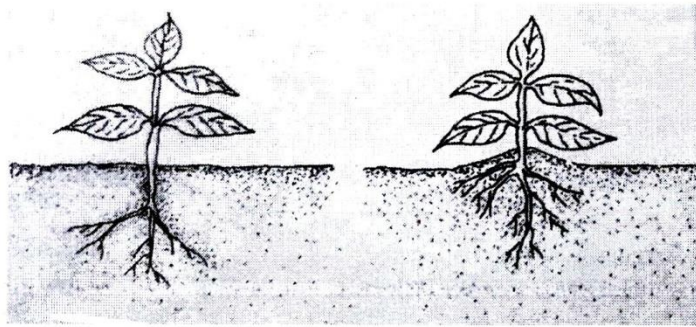
Identify the practice in the diagram above.   (1 mark)

....

....

16. Diagram G and H below show some weeds.
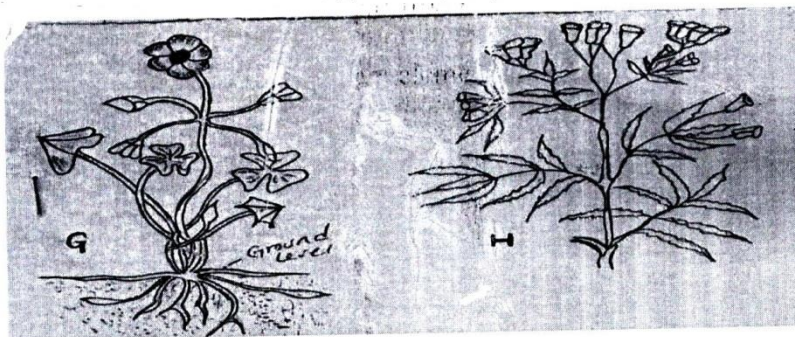
a) Identify the weeds G and H.   (2 marks)

G

....

....

H.

....

....

b) State one economic importance of weed H   (1 mark)

FOR MARKING SCHEME CALL SIR ABRAHAM 0729 125 181

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c) Why is it difficult to control weed G? (1 mark)

....

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d) Name an example of a systematic herbicide which can be used to control weed G
(1 mark)

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17. Study the structure below and answer the questions that follow.
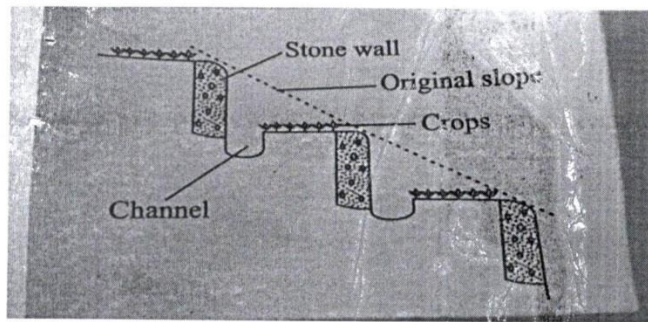
a) Identify the type of terrace illustrated above (1 mark)

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b) Under what **two** circumstances should the construction of the above terrace be justified?

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c) Name **two** other types of terraces.

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SECTION C (40 MARKS)

FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

Answer Any Two Questions From This Section In The Spaces Provided.

18. (a) Describe the production of tomatoes under the following;
    (i) Transplanting.   (5 marks)
    (ii) Field management practices.   (5 marks)

    (b) Give **six** advantages of drip irrigation.   (6 marks)

    (c) Describe the precautions a farmer should put into consideration when harvesting cotton.
                                                                (4 marks)

19. (a) Outline various ways through which vegetation cover reduces soil erosion. (4 marks)
    (b) Outline various conditions which necessitate land clearing.   (4 marks)
    (c) Give **six** benefits of planting annual crops early.   (6 marks)
    (d) Describe **six** practices carried out in a vegetable nursery to ensure healthy seedlings at transplanting   (6 marks)

20. (a) Describe **eight** cultural methods of controlling diseases in crop production. (8 marks)
    (b) Explain **three** ways in which biotic factors discourages agricultural production.
                                                            (3 marks)

    (c) State **four** effects of high temperature in crop production.   (4 marks)

    (d) Describe **five** ways through which a farmer can maintain soil fertility in his coffee farm.
                                                            (5 marks)

AGRICULTURE FORM 4
PAPER 1 (443/1)
TIME 2 HOURS
SERIES 8 2024 KCSE TOP RANK PREDICTION MOCK

INSTRUCTIONS TO CANDIDATES

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

2. Answer **ALL** the questions in section A and B and any **TWO** questions in section C.

3. Answers to be written in the spaces provided only.

FOR OFFICIAL USE ONLY

SECTION	MAX. SC0RE	ACTUAL SCORE
A	30	
B	20	
C	40	
TOTAL	**90**	

SECTION A (30 marks)

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

1. State **four** limitations of pastoral nomadism   (2mk)

FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

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2 List **four** environmental conditions that may lead to low crop yields. (2mk)

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3. Give **four** factors which determine the depth of ploughing   (2mks)

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4. List **four** features of plastic pipes a farmer should consider before buying the pipes (2mks)

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5. State **four** advantages of using farmyard manure over straight fertilizers (2mks)

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6. State **four** qualities of certified maize seeds   (2mks)

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7. State **three** disadvantages of tenancy system of farming   ($1^1/_2$mks)

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8. Give **four** natural factors that encourage soil erosion   (2mks)

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9. State **four** field conditions that may favour the choice of chemical weed control   (2mk)

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10. Give **three** damages caused by squirrels ($1^1/_2$mks)

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11. Name the type of farm record from which each of the following information could be obtained: ($1^1/_2$mks)

(a)   Common Livestock disease occurring in a given farm.

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(b)   The number of jembes a farm owns.

……

………

(c)   The sire used to obtain the calves on the farm.

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12.   .A farmer plants maize on his piece of land measuring 40m by 30m at a seed rate of I seed per hole. If he used a spacing of 75cm by 25cm, Calculate this plant population.(2marks).

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13. State four reasons for conserving forage (2marks)

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14.   State *three* advantages of mulching

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15.State *four* factors to consider when siting a nursery bed

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16. Give four factors that influence the stage at which crop is harvested (2mks)

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SECTION B (20 marks)

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

17. Below is a diagram of a weed. Study the diagram carefully and answer the questions that follow.
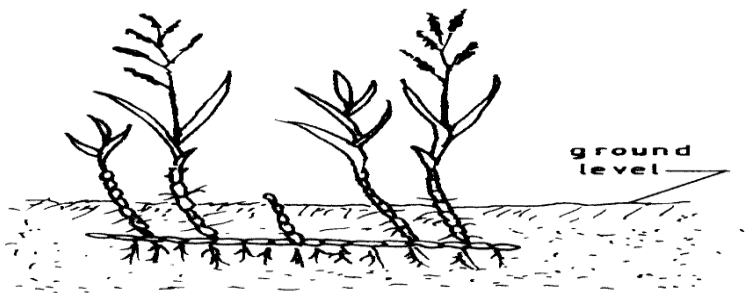
a)   Identify the weed illustrated above.

(1mks)

....

....

b) Why is the weed illustrated above difficult to control?   *(1mks)*

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c)State *four* ways in which the weed can be controlled in a field of maize.   *(2marks)*

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18. The diagram below illustrates a field management practices in tomatoes

(i) Identify the practice   (1 mark)

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....

(ii) State three reasons for carrying out the practice.   (3 marks)

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(iii)   Give another practice that could be carried out to give the same results. (1 mark)

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19. The diagrams labeled **S** and **T** illustrate some methods of draining waterlogged fields; use it to answer the questions that follow:

S

T
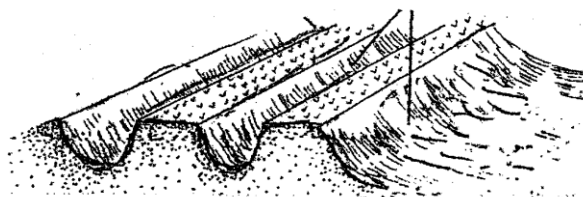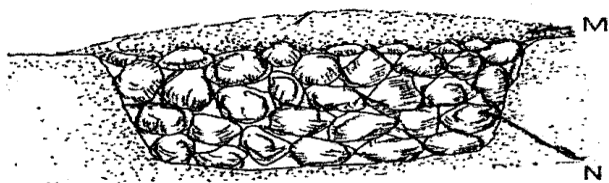
(a) Identify the methods illustrated

      S ……………………… **T** …………………………..

(2marks)

(b) What are the materials in **S** labeled **M** and **N**

    M ………………………………………….   N-…………………… *(2marks)*

(c) Name *two* types of crops that can be planted in the field instead of carrying out the practice illustrated in **S** and **T**   *(2marks)*

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20. The diagram below shows a silo. Study it carefully and answer the questions that follow.

a) Identify   (1mark)

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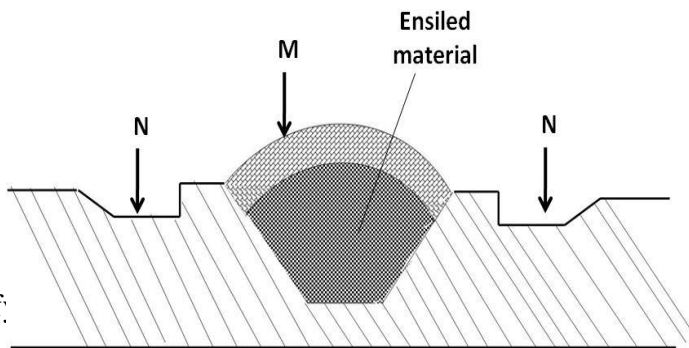
b) State the use of the part labelled M and N   (2marks)

M ....

N ....

c) Give **two** ways of ensuring that anaerobic conditions are achieved during silage making
process.   (2marks)

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SECTION C (40 marks)
*Answer any **two** questions in this section in the spaces provided*

21. (a)   Describe how carrots are planted in the field   *(6mks)*

    (b)   Explain *six* reasons for pruning coffee   *(6mks)*

    (c)   Describe the effects of land fragmentation and sub-division   *(8mks)*

22.(a)   Describe *six* reasons for carrying out minimum tillage   *(6mks)*

    (b)   Describe *eight* cultural method of controlling soil erosion   (8mks)

    (c)   Explain *six* ways how soil loses its fertility   *(6mks)*

23. (a)   Discuss *eight* physical measures used to control pests   *(8mks)*

    (b)   Describe *six* nursery management practices   (6mks)

    (c)   Discuss *six* factors to consider when spacing crops   (6mks)

AGRICULTURE FORM 4
PAPER 1 (443/1)
TIME 2 HOURS
SERIES 9 2024 KCSE TOP RANK PREDICTION MOCK

INSTUCTIONS TO CANDIDATES

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

FOR EXAMINERS USE ONLY

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

FOR MARKING SCHEME CALL SIR ABRAHAM **0729 125 181**

SECTION A: 30 MARKS

1. List **four** methods of farming. (2marks)

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2. Give **four** factors that would determine the stage at which a crop is harvested. (2marks)

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3. Give three reasons for early seedbed preparation. (1½marks)

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3.

4. State **four** disadvantages of organic mulches. (2 marks)

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5. Outline four functions of magnesium in crops . (2 marks)

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6. .State four objectives o f land tenure reform .   (2marks)

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7. .State two disadvantages of late defoliation in pasture management .   (1mark)

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8. .Define the following terms as used in economics .
(a) National income   (1mark)

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(b) Per capita income   (1mark)

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9.Give four benefits of a good soil structure in crop production .   (2marks)

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10.Name **four** farm records that should be kept by a poultry farmer.   (2marks)

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11. Give three factors that should be considered when choosing the type of labour to use on   the farm.   ($1^1/_2$ marks)

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12. State four ways in which burning of vegetation may lead to lose of soil fertility   (2 marks)

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13. State *four* symptoms of viral diseases in crops.   (2marks)

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14. State *three* methods of classifying herbicides.   (1½marks)

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15. Give *four* methods of applying fertilizers to crops.   (2marks)

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16. State **three** advantages of drip irrigation   (1½ marks)

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17. Outline **two** ways of controlling damping off diseases on vegetable seedlings in a nursery

(1mark)

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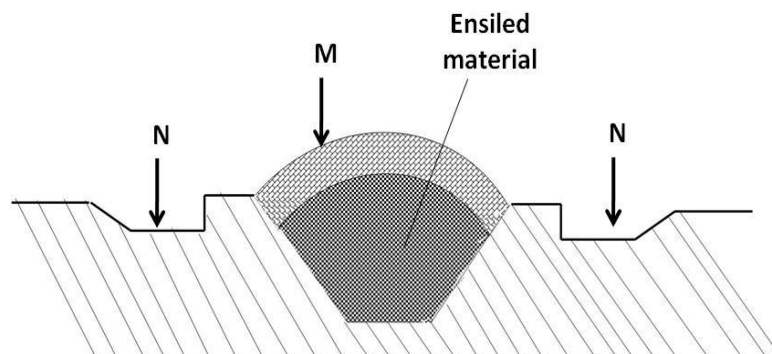
SECTION B(20 MARKS)

Answer all the questions in this section in the spaces provided

18. The diagram below shows a silo. Study it carefully and answer the questions that follow.

b)   Identify the type of silo shown on the diagram.   (1mark)

....

....

b) State the use of the part labeled M and N   (2marks)

M .

....

....

N

....

....

c) Give **two** ways of ensuring that anaerobic conditions are achieved during silage making process.   (2marks)

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19. Form two student put some soil sample in a measuring cylinder, added some water and sodium carbonate and then covered the cylinder with the hand and shook the cylinder for about two minutes.   He left the cylinder on the bench for one hour. The result was as shown below.
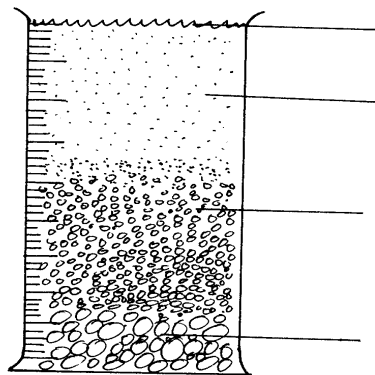
(i). **Name** the layers marked a,b,c, and d.   (2marks)
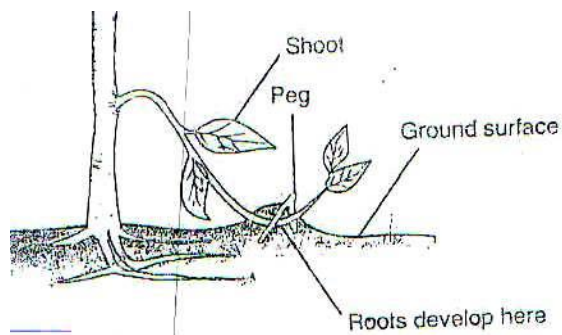
A

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b

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C

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D

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(ii) What was the function of sodium carbonate in this experiment?   (1mark)

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(iii). What was the aim of this experiment ?   (1mark)

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20. Study the diagram below of crop propagation and answer the following questions

a)   Identify the propagation method   (1mark

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b) State two factors that encourage root formation in the above method of propagation (2marks)

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c). Name two crops that can be propagated using the above method   (2marks)

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21. (a)   Describe the procedure which should be followed in spraying a crop in tomatoes using a

fungicide in powder form, water and a knapsack sprayer.   (3marks)

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(b)   Name one fungal disease of tomatoes that can be controlled using the above procedure.

(1marks)

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c)   State four safety measures that should be taken while spraying the crop with the

fungicide.   (4marks)

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SECTION C (40 MARKS)

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

22. **(**a) Explain **five** factors that should be considered when siting a vegetable nursery. (5marks)

(b) Explain six factors that should be considered when selecting seeds for planting. (6marks)

(c) Explain the different ways in which each of the following environmental factors

Influence crop production:

(i) Temperature; (4marks)

(ii) Wind. (5marks)

23. (a) Explain the benefits of land consolidation. (6marks)

b) Briefly explain **six** factors influencing mass wasting. (6marks)

c) Explain **four** ways of improving labour productivity (8marks)

24 (a) Explain five factors that determine the spacing to be used in crops. (10marks)

(b) Describe seven nursery practices carried out while seedlings are still growing.(7marks)

(c) Outline three precautions taken in harvesting tea. (3marks)

NAME……………………………………………………...ADM…………………….

SCHOOL………………………………………………….INDE…………………….

DATE…………………….SIGN…………………TARGET…………………….

AGRICULTURE FORM 4
PAPER 1 (443/1)
TIME 2 HOURS
SERIES 10 2024 KCSE TOP RANK PREDICTION MOCK

INSTRUCTIONS TO CANDIDATES

- Write your name and index number in the spaces provided above.
- The paper consists of **three** sections A , B and C.
- Answer all questions in section A and B in the spaces provided
- Answer **any two** questions from section C in the spaces provided

FOR EXAMINER'S USE ONLY

Section	Question	Maximum score	Candidate's score
A	1–16	30	
B	17 18 19 20	20	
C	21-23	40	
	TOTAL	90	

SECTION A (30 marks)

1. Give two reasons why agriculture is looked as an artistic practice   **(2MKS**

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2. Outline two disadvantages of communal land tenure system   **(1mark)**

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3. Give three different types of soil water   **(1 ½ mark**

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4. Give two ways of utilization of napier grass as a forage crop   **(1mark)**

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5. Give two signs of crop infestation by root nodes nematodes   **(1mark)**

---

6. Name two chemicals used in water treatment   **(1mark)**

---

7. a) A farmer was advised to apply 210 kg of calcium of ammonium nitrate

(CAN 21-0-0) per hectare. Calculate the amount of nitrogen required   **(2 marks)**

b) Different between fertilizer grade and fertilizer ratio   (2marks)

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8. Give four biotic factors that influence agriculture   (2marks)

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9. a) Give reasons why land should be prepared early in readiness for planting   (2marks)

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(b) State reasons for deep ploughing during land preparation   (2marks)

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10. List two methods of land reclamation   (2marks)

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11. A form four student planted maize for her KCSE agriculture project. She use a spacing of 75cmx25cm; her plot was 4 x3m.

   (i)   What does 75cm stand for in this statement   **(1mark)**

   (ii)   Calculate the plant population showing your working   **(3marks)**

----

12. Name two pests with piercing and sucking mouth parts   **(1mark)**

----

13. a) Explain the form changing the cycle in coffee growing   **(1mark)**

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   b) State two importance of tissue culture in crop production   **(1mark)**

----

14. Why are leguminous plants preferred for green manure? **(1mark)**

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15. i) What is opportunity cost **(1mark)**

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..............................:..

ii) A farmer has an option of growing either wheat or maize in her one hectare of land.

Wheat gives a return of Kshs. 20, 000 while maize fetches Kshs. 35, 000 in the market. If

the farmer chooses to grow wheat, what will be the opportunity cost? **(1mark)**

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16. State three control measures of maize streak disease **(1.5marks)**

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SECTION B (20 MARKS)

17. The table below shows output of maize in response to increase in D.A.P fertilizers on one hectare of land.

Fixed input land (in ha)	Variable input D.A.P in 30kg-bag	Total product maize yield in 90-kg bag	Average product (AP) maize in 90kg bag	Marginal product (M.P) in 90kg bag
1	0	2	-	-
1	1	5	-	-
1	2	14	-	-
1	3	21	-	-
1	4	26	-	-

a) Fill in the table for average product (A.P) and marginal products (M.P)

(5marks)

18. The diagrams below illustrate irish potato seed preparation before planting. Study it carefully and answer the questions that follow.

(a) Before *the Practice.*   (b) After *the Practice.*
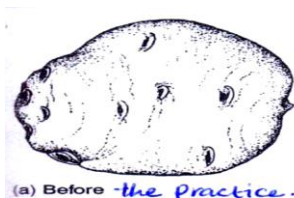
a) Name the practice used in preparing the seed potato above before planting.   **(1mark)**

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b) Describe the procedure followed in preparing the seed potatoes for planting.   **(3marks)**

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c) Give **one** reason for carrying out the practice named above.   **(1mark)**

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19. The photograph below shows an irish potato plant attacked by a disease. Study it and answer the questions that follow.

a) Identify the disease represented by the photograph. **(1mark)**

………………………………………………………………………………………………

…...

b) Name the causative agent of the diseases. **(1mark)**

………………………………………………………………………………………………

....

Give **one** other crop that can be attacked by the same disease.

(1mark)

………………………………………………………………………………………………

....

c)

d) List **two** control measures of the disease. **(2marks)**

………………………………………………………………………………………………

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20. The photographs below show common weeds C and D in pasture land. Study them carefully and answer the questions that follow.

| C | D |

a) Identify weeds C and D.   **(2marks)**

C………………………………………………D……………………………………………

b) Classify weed D according to plant morphology.   **(1mark)**

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c) State the major problem posed by each of the weeds above in pasture land.

   (2marks)

   C

……

………

   D

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SECTION C (40MARKS)

Answer Any TWO questions in this section

21. (a) Explain **FIVE** cultural methods of pest control   **(10marks)**

   (b) Outline **FIVE** factors considered in timely planting of annual crops   **(10marks)**

22. (a) Outline the process of land Adjudication   **(5marks)**

      a.   (b) Discuss **five** reasons for carrying out minimum tillage.   **(5 marks)**

      b.   Explain **5** ways in which soil losses fertility.   **(10 marks)**

23. (a) Describe **seven** field management practices in tomato production.   **(7marks)**

    b. Outline **five** factors that determine water requirements in an animal's body. **(5 marks)**

    c. Describe the transplanting of tree seedlings.   **(8 marks)**

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* FORM 1 - FORM 4 TOPICAL QUESTIONS AND ANSWERS
* FORM 1 – FORM 4 OPENER,MID-TERM AND ENDTERM EXAMS
* TOP RANK PREDICTION MOCK SERIES EVERY YEAR
* FORM 1- FORM 4 NOTES
* SCHEMES OF WORH EVERY YEAR

2. **ENGLISH**

    * FORM 1 - FORM 4 TOPICAL QUESTIONS AND ANSWERS
    * FORM 1 – FORM 4 OPENER, MID-TERM AND ENDTERM EXAMS
    * TOP RANK PREDICTION MOCK SERIES EVERY YEAR
    * FORM 1- FORM 4 NOTES
    * SCHEMES OF WORH EVERY YEAR
    * POETRY QUESTIONS AND ANSWERS
    * POETRY NOTES
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3. KISWAHILI
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    * TOP RANK PREDICTION MOCK SERIES EVERY YEAR
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    * SCHEMES OF WORH EVERY YEAR
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