NAME ………………………………..…………….. **DATE** ……………………………

INDEX NO. ………….…….…….……..… **CANDIDATE'S SIGNATURE** ………….…..………..

443/1
AGRICULTURE
PAPER 1 (THEORY)
TIME: 2 HOURS

MAKINDU DISTRICT INTER – SECONDARY SCHOOLS EXAMINATION

Pre - Kenya Certificate of Secondary Education

443/1
AGRICULTURE
PAPER 1 (THEORY)
JULY/AUGUST 2014
TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES
1. Write your name and index number in the spaces provided above.
2. This paper has **THREE** sections: A , B and C
3. Answer **ALL** the questions in section A and B and any **TWO** questions in section C
4. ALL answers **MUST** be written in the spaces provided.
5. Do not remove any pages from this booklet.
6. This paper consists of 11 printed pages. Candidates should check to ensure that all pages are printed as indicated and no questions are missing

FOR EXAMINER'S USE ONLY

	Questions	Maximum score	Candidate's score
A	01 - 20	30 marks	
B	21 - 24	20 marks	
C	25- 27	40 marks	
		Total score	

SECTION A (30 MARKS)

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

1. Give four factors which characterize large scale farming.   (2 marks)

    ....

    ....

    ....

    ....

2. State any four effects of rainfall on Agriculture.   (2marks)

    ....

    ....

    ....

    ....

3. Give two disadvantages of landlordism tenancy tenure system as practiced in Kenya   (1mark)

    ....

    ....

4. Give two reasons for adding well rotten organic manure to a compost heaps.   (1marks)

    ....

    ....

5. i)   Why is it advisable to apply straight nitrogenous fertilizer to a crop of maize at a height of 30-45cm?

                                                                                                                       (2marks)

    ....

    ....

    ....

    ii). Suppose the farmer has to apply 30kg P_2O_5 per hectare and has the following at his disposal

    21:15:60.

    Calculate the amount of P_2O_5 he will require for 2 hectares.   (2marks)

    ....

    ....

    ....

    ....

6. How does proper spacing reduce pests and diseases in crops?   (1mark)

    ....

    ....

    ....

7. Mention four advantages of using polythene sleeves in the establishment of seedlings. (2marks)

....
....
....
....

8. List four environmental conditions that may lead to low crop yields. (2 marks)

....
....
....
....

9. State two main causes of silage losses. (1mark)

....
....
....

10. State four methods used for collecting agro forestry seeds for planting. (2marks)

....
....
....
....

11. List four examples of joint products in livestock production. (2marks)

....
....
....
....

12. Outline two ways through which rain drop erosion initiates the process of soil erosion. (1mark)

....
....

13. State two reasons why subsoiling is important as an operation of land preparation. (1mark)

....
....
....

14. List two benefits of packaging agricultural commodity (1mark)

....
....
..

15. Give four conditions that have led to fragmentation and sub-division of agricultural land in Kenya.

(2marks)

....

....

....

....

....

....

....

....

16. Give three benefits of micro-catchments in water conservation   (1½ marks)

....

....

....

17. State two cultural methods of soil conversation   (1mark)

....

....

18. Give two reasons for proper drying of grains before storage.   (1mark)

....

....

....

19. State two effects of aphids on plants.   (1 marks)

....

....

20. Give three reasons for forage conservation.   (1½ marks)

....

....

....

SECTION B (20 MARKS)

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

21. The diagram below illustrates a field management practice carried out to a fruit crop
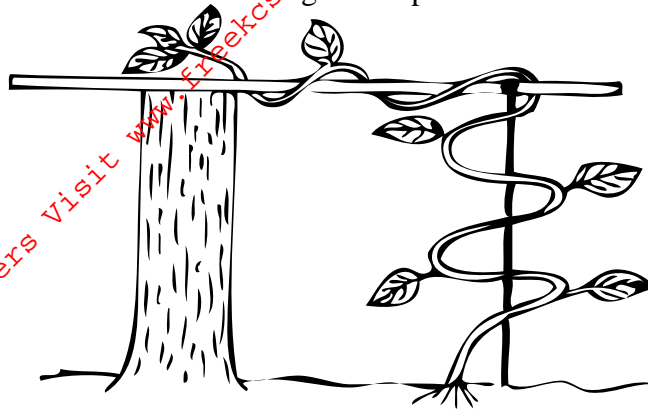
(a)

(b) i) Identify the practice illustrated above.   (1mark)

....

....

ii) Give two reasons for carrying out the practice illustrated in the above diagram.   (2marks)

....

....

....

(c) Give a reason why it is not advisable to use manure in carrot production.   (1mark)

....

....

....

22) Diagram X and Y represent two weeds
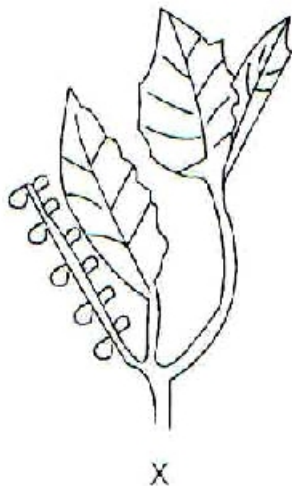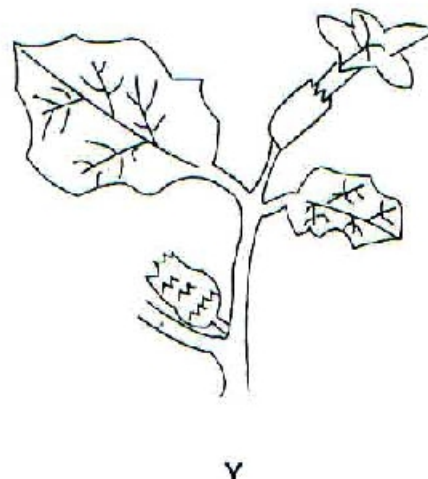
i. Identify weeds:

X

....

Y

....   (1mark)

ii. Give two economic importance's of each of the weeds above.   (2 marks)

....

....

....

iii. Name two kinds of herbicides used to control the above weeds C.   (2marks)

....

....

....

23. The diagram labeled A, B and C below illustrates some vegetable pests. Study the diagrams carefully and then answer the questions that follow.
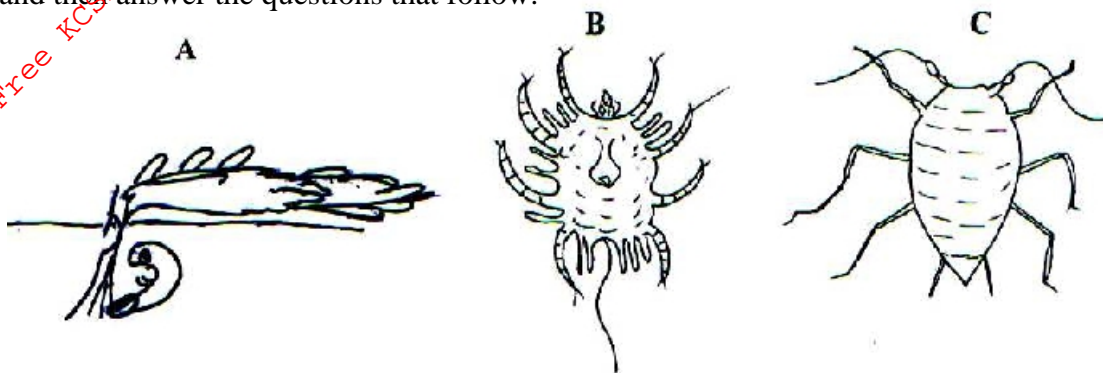
a) Identify each of the pests illustrated in the diagrams A, B and C.   (1½ marks)

A.

....

B.

....

C.

....

b) State the damage caused by each of the pests labeled A and C on the host plants.   (1mark)

A

....

C

....

c) Give one cultural control measure for the pest labeled C   (½ mark)

....

....

d) Explain the following practices as used in crop production

i. Integrated Pest management.   (1mark)

....

....

ii. Economic injury level (1mark)

....
....

iii. Close season (1mark)

....
....

24. a) The diagram below shows a method of forage preservation
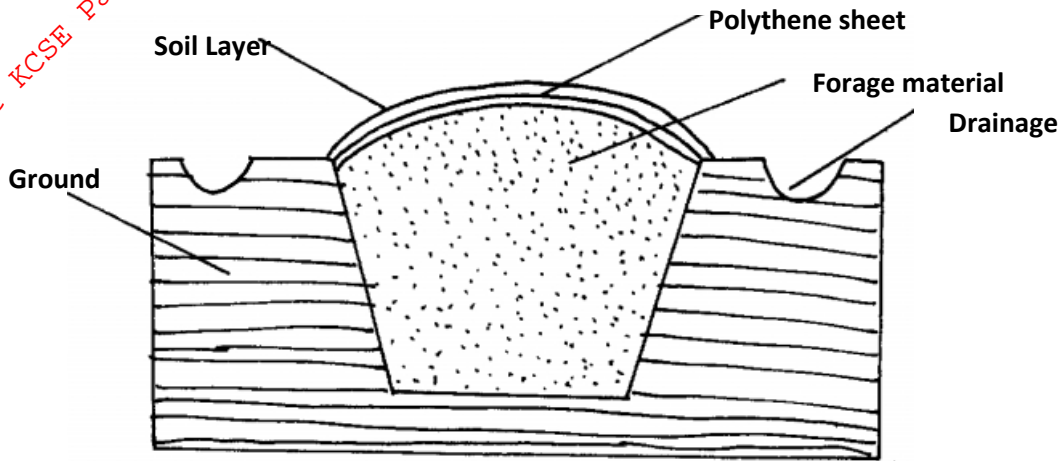
i. Identify the structure illustrated above. (1mark)

....
....
....
....

ii. State the form in which the forage is preserved as illustrated above (1mark)

....
....

iii. Give the role of each of the following in the structure above (2marks)

i. Polythene sheet

....
....

ii. Drainage

....
....

b) Name one other method of forage conservation (1mark)

....
....
....

SECTION C (40 MARKS)

Answer *only two* questions in this section in the spaces provided.

25. a) Describe the methods used in preparing materials in readiness for planting.   (8 marks)

b) Explain the factors that may determine spacing of crop in the farm   (8 marks)

c) Explain briefly the factors that influence timely planting.   (4marks)

26. a) State the law of Diminishing Returns   (2marks)

b) Illustrate the above stated law by use of the graph and indicate the three important zones of

production.   (3marks)

c) Explain eight ways how a farmer can adjust to risks and uncertainties   (8marks)

d) Give four advantages of budgeting in farm business.   (4marks)

e) Outline three uses of a balance sheet in farm accounts.   (3marks)

27. a) Describe ten safety precautions that should be taken when using herbicides to control weeds.

(10marks)

b) Explain ten farming practices which help to conserve soil on a farm.   (10marks)

....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....

....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....
....