

NAME: .....

ADM NO: .....

SCHOOL: .....

DATE: .....

CANDIDATE'S SIGNATURE : .....

13/1  
AGRICULTURE  
PAPER 1  
JULY / AUGUST 2016  
DURATION: 2 HOURS

# C E 2016 FORM 3

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

### INSTRUCTIONS TO CANDIDATES:

- ( ) Write your **Name, School and Index number** in the spaces provided above.
- ( ) **Sign** and write the **date** of examination in the spaces provided above.
- ( ) This paper consists of **THREE** sections **A, B and C**.
- ( ) Answer **ALL** questions in Section **A and B**.
- ( ) Answer any **TWO** questions in section **C**.
- ( ) Answers should be written in the spaces provided.
- ( ) This paper consists of **8** printed pages.
- ( ) Candidates should check the question paper to ascertain that all the pages are printed as indicated and no questions are missing.

### FOR EXAMINER'S USE ONLY

SECTION	QUESTIONS	MAX. SCORE	CANDIDATE'S SCORE
A	1 – 15	30	
B	16 – 20	20	
C	21	20	
	22	20	
	23	20	
<b>Total Score</b>		<b>90</b>	

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

List four advantages of mixed farming. (2mks)

Define the term soil fertility. (2mks)

(a) Give six characteristics of fertile soils. (3mks)

(b) Outline six ways on how soil loses fertility. (3mks)

Give four disadvantages of using farmyard manure. (2mks)

Differentiate Between the term soil texture and soil structure. (1mk)

Outline **four** advantages of crop rotation. (2mks)

Outline **four** farm activities which may cause pollution on water source. (2mks)

Name **four** types of pumps that are used to lift water from its source. (2mks)

List **three** ways of treating water. (1½mks)

0. State **four** signs of ill-health in livestock (2mks)

1. Name **three** types of silos used for making silage. (1½mks)

2. List **four** safety precautions taken into consideration when working with farm tools. (2mks)

Give four categories of farm tools.

(2mks)

Give the functions of the following:-

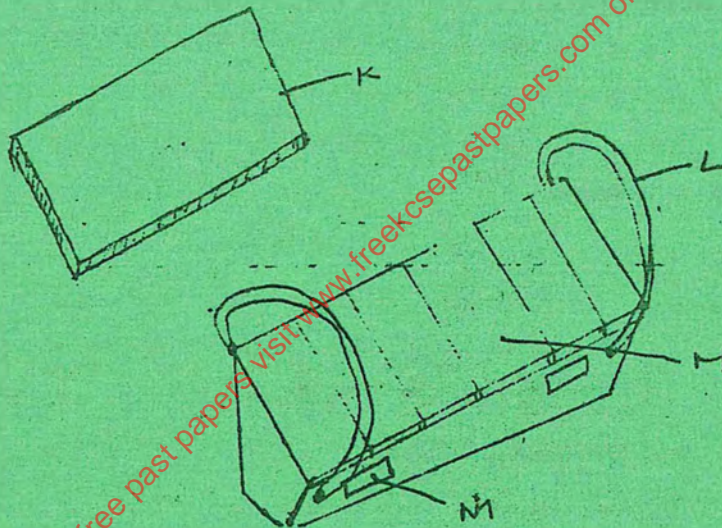
(2mks)

- (i) Vagina:.....
- (ii) Vulva:.....
- (iii) Oviduct:.....
- (iv) Epididymis:.....

**SECTION B (20 MARKS)**

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

The diagram below illustrates a Kenya Top Bar Hive. Study it carefully and answer the questions that follow.



(a) Identify the parts labelled L and M. (1mk)

L:.....

M:.....

(b) State two functions of the parts labelled K, L and N. (1½mks)

K:.....

.....

L:.....

.....

M:.....

.....

(c) How can bees be made to colonize a new hive? (1mk)

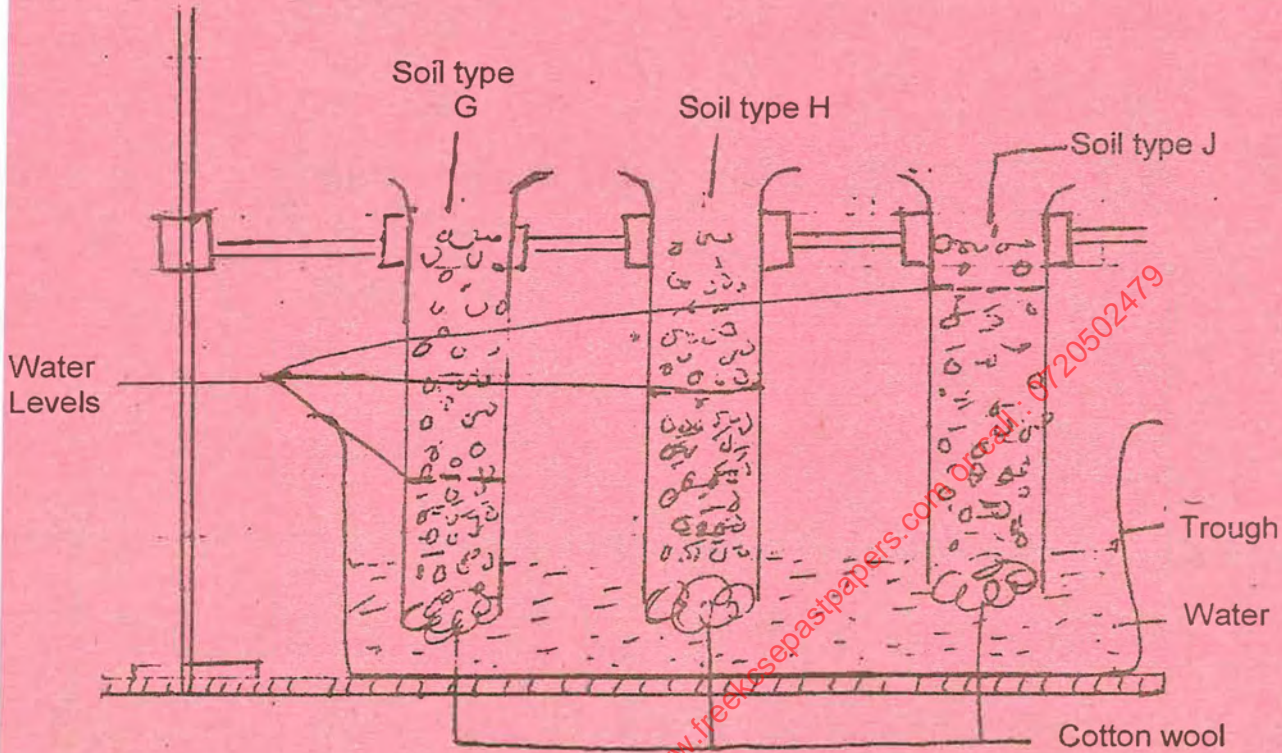
.....

(d) State **two** maintenance practices carried out on the top bar hive. (1mk)

.....

.....

16. The diagram below shows an experiment set-up using soil type G, H and J to investigate an aspect of soil property.



(a) Identify the aspect of soil property being investigated. (1mk)

.....

(b) Name the three soil types G, H and J. (3mks)

G:.....

H:.....

J:.....

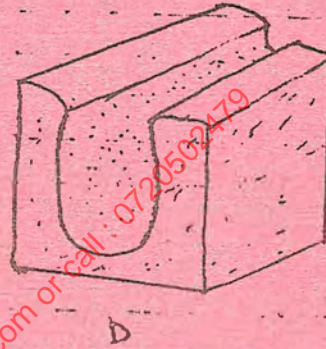
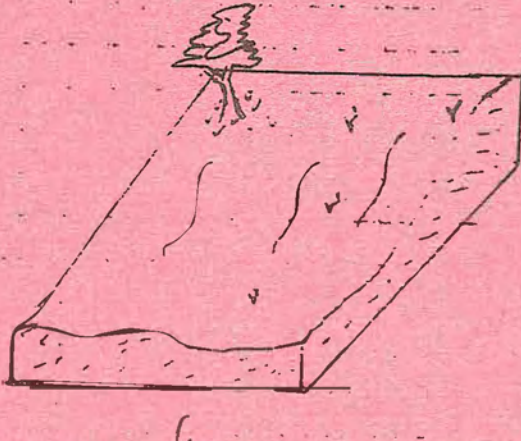
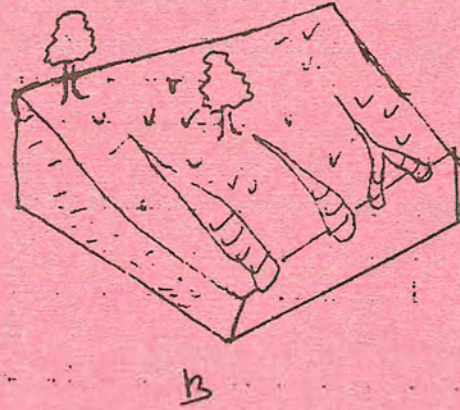
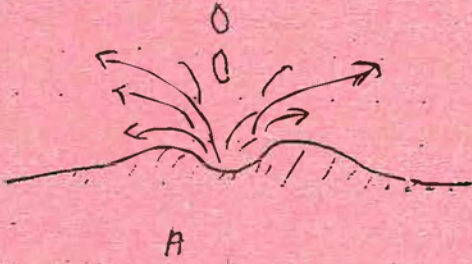
(c) What conclusion can be drawn from the experiment? (1mk)

.....

.....

.....

17. The illustrations below indicate type of soil erosion that takes place on cultivated farm land. Study them and then answer the following questions:



(a) Identify the type of erosion represented by each of the illustrations A, B, C and D. (2mks)

- A: .....
- B: .....
- C: .....
- D: .....

(b) Name **two** factors that may accelerate the rate of the type of erosion represented by A. (2mks)

- .....
- .....
- .....

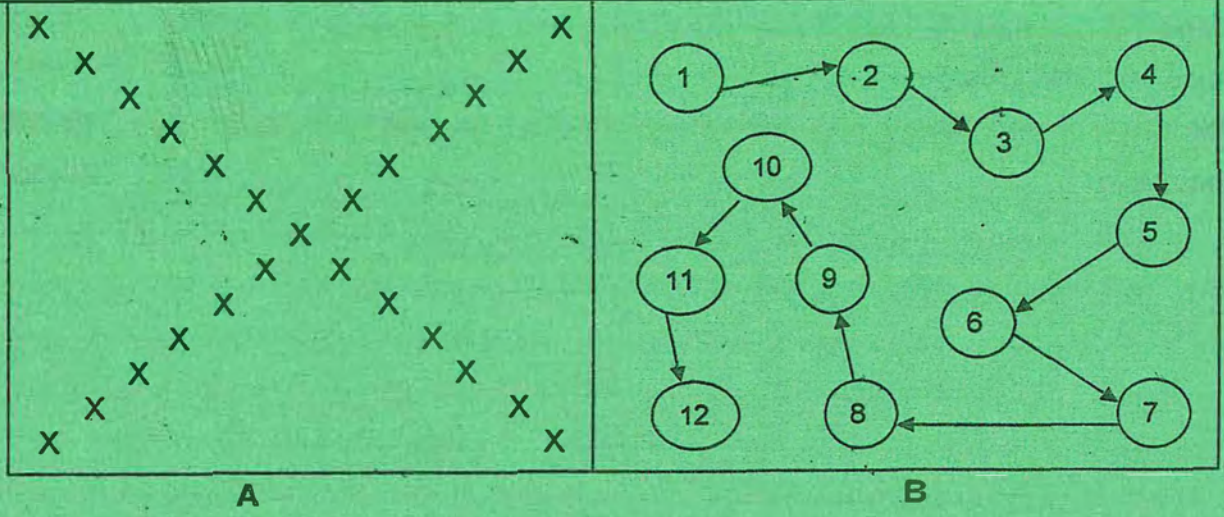
(c) Give **two** practices that may reduce the impact of the type of erosion represented by A. (1mk)

- .....
- .....
- .....

(d) Apart from loss of soil, what type of destruction are caused by the type of erosion represented by A. (1mk)

- .....

3. The following illustrations show two different methods of carrying out a certain activity in the farm.



(a) Identify the activity represented by the illustrations. (1mk)

.....

(b) Name the methods represented by illustrations A and B. (1mk)

.....  
 .....

(c) Mention six areas where the activity should not be carried out. (3mks)

.....  
 .....

**SECTION C**

Answer any two questions in the spaces provided

9. (a) Discuss five advantages of vegetation propagation in crop production. (5mks)

(b) Explain the procedure of carrying out the following methods of layering:

(i) Marcotting aerial layering. (5mks)

(ii) Tip layering. (5mks)

(iii) Trench layering. (5mks)

10. (a) Mention four methods of water harvesting. (4mks)

(b) Describe the different types of micro-catchment used in water conservation. (10mks)

(c) Explain the importance of micro-catchment. (6mks)

21. Discuss production of carrots under the following sub-headings:

- (a) Varieties (2mks)
- (b) Ecological requirements. (4mks)
- (c) Planting. (6mks)
- (d) Field practices. (5mks)

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