**NAME:……………………………..……………………..ADM. NO……………..………**  
**SCHOOL:………………………………………STUDENT’S SIGN ……………………**

**DATE……………………………….**

**443/1 FORM TWO**

JULY, 2019  
**Time: 2 Hours**

***Kenya Certificate of Secondary Education (K.C.S.E)   
AGRICULTURE***

**INSTRUCTIONS TO CANDIDATES**

a) Write your name and Admission 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 the questions in section A and B and any **two** questions in section C.

e) ALL answers must be written in the spaces provided in this booklet.

**FOR EXAMINER’S USE ONLY**

|  |  |  |  |
| --- | --- | --- | --- |
| **SECTION** | **QUESTIONS** | **MAX. SCORE** | **CANDIDATE’S SCORE** |
| **A** | **1 – 15** | **30** |  |
| **B** | **16– 20** | **20** |  |
| **C** | **21-22** | **20** |  |
| **20** |  |
| **TOTAL SCORE** | | **90** |  |

*This paper consists of 10 printed pages. Candidates should check the question paper to ensure that all pages are printed as indicated and no questions are missing.*

**SECTION A 20MRKS**

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

1. Give **two** disadvantages of intensive system of farming. (1 mk)

…………………………………………………………………………………………………

…………………………………………………………………………………………………

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

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

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

1. Give **four** reasons-for keeping livestock health records on the farm. (2 mks)

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

1. State **four** features that should be considered when choosing water pipes

for use on the farm. (2 mks)

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

1. Name **three** recommended practices that should be carried out when clearing

the bush during land preparation. (1 ½ mks)

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

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

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

1. State **four** disadvantages of mono cropping in crop production. (2 mks)

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

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

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

1. State **four** disadvantages of organic mulches. (2mks)

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

1. Give **four** factors that influence the number of secondary cultivations in

seedbed preparation. (2 mks)

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

1. State **four** factors that determine the stage at which a crop is harvested. (2mks)

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

1. Give **four** reasons why land should be prepared early in readiness for planting. (2 mks)

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

1. What is meant by each of the following terms: (3 mks)
   * 1. mixed cropping

…………………………………………………………………………………………………

* + 1. Monocropping

…………………………………………………………………………………………………

* + 1. Intercropping

…………………………………………………………………………………………………

1. State **four** advantages of timely planting. (2 mks)

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

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

(a) cassava (1mk)

…………………………………………………………………………………………………

(b) sisal (1mk)

…………………………………………………………………………………………………

(c) pyrethrum (1mk)

…………………………………………………………………………………………………

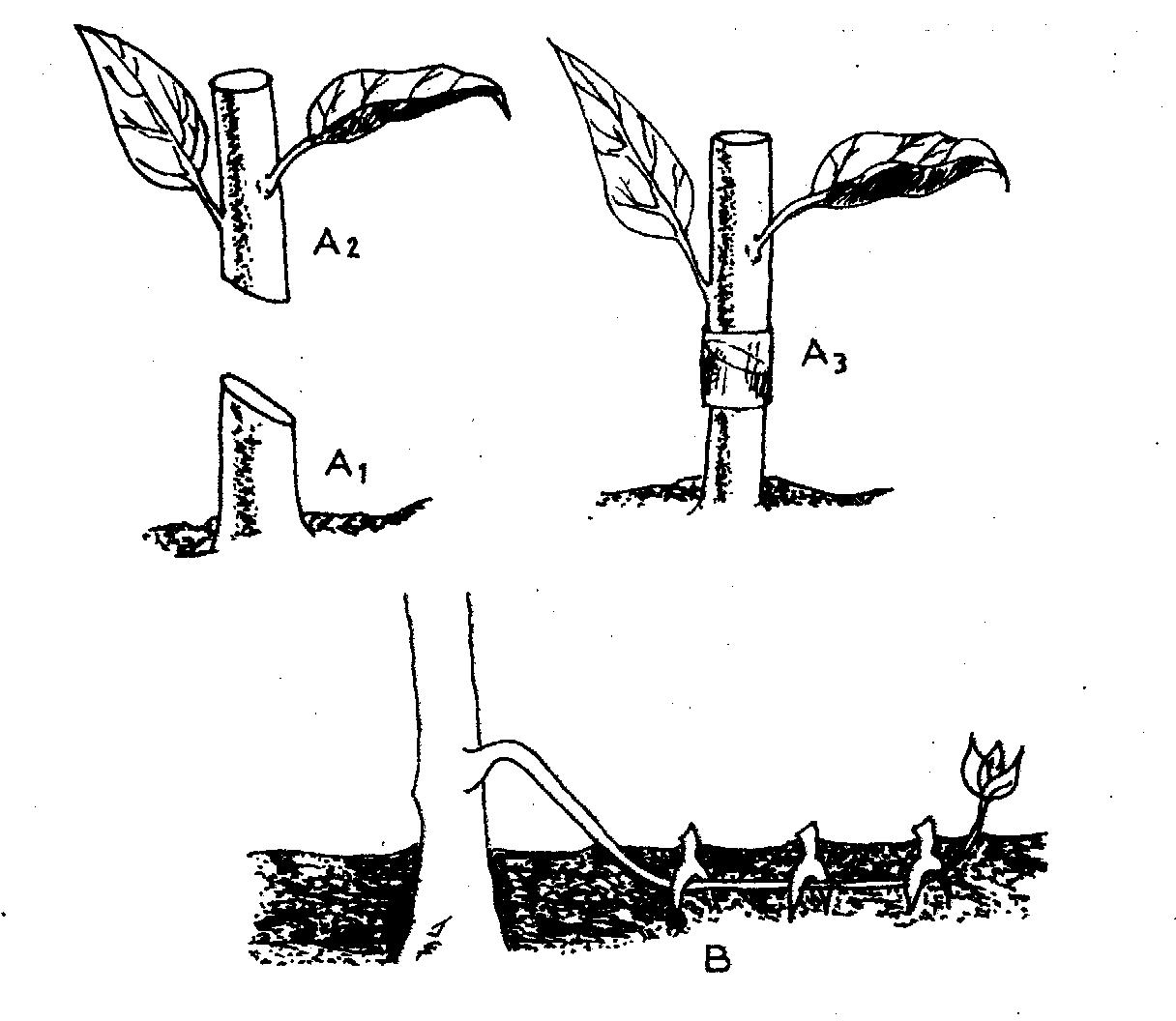
(d) sweet potatoes. (1mk)

…………………………………………………………………………………………………

**SECTION B** (20 MRKS)

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

1. The diagrams labeled A1, A2, A3, and B below illustrate materials and methods

 of vegetative propagation. Study them and answer the questions that follow.

(a) Name the parts labeled A1, and A2 ( 2 mks)

A1………………………………………………………………………………

A2……………………………………………………………………………….

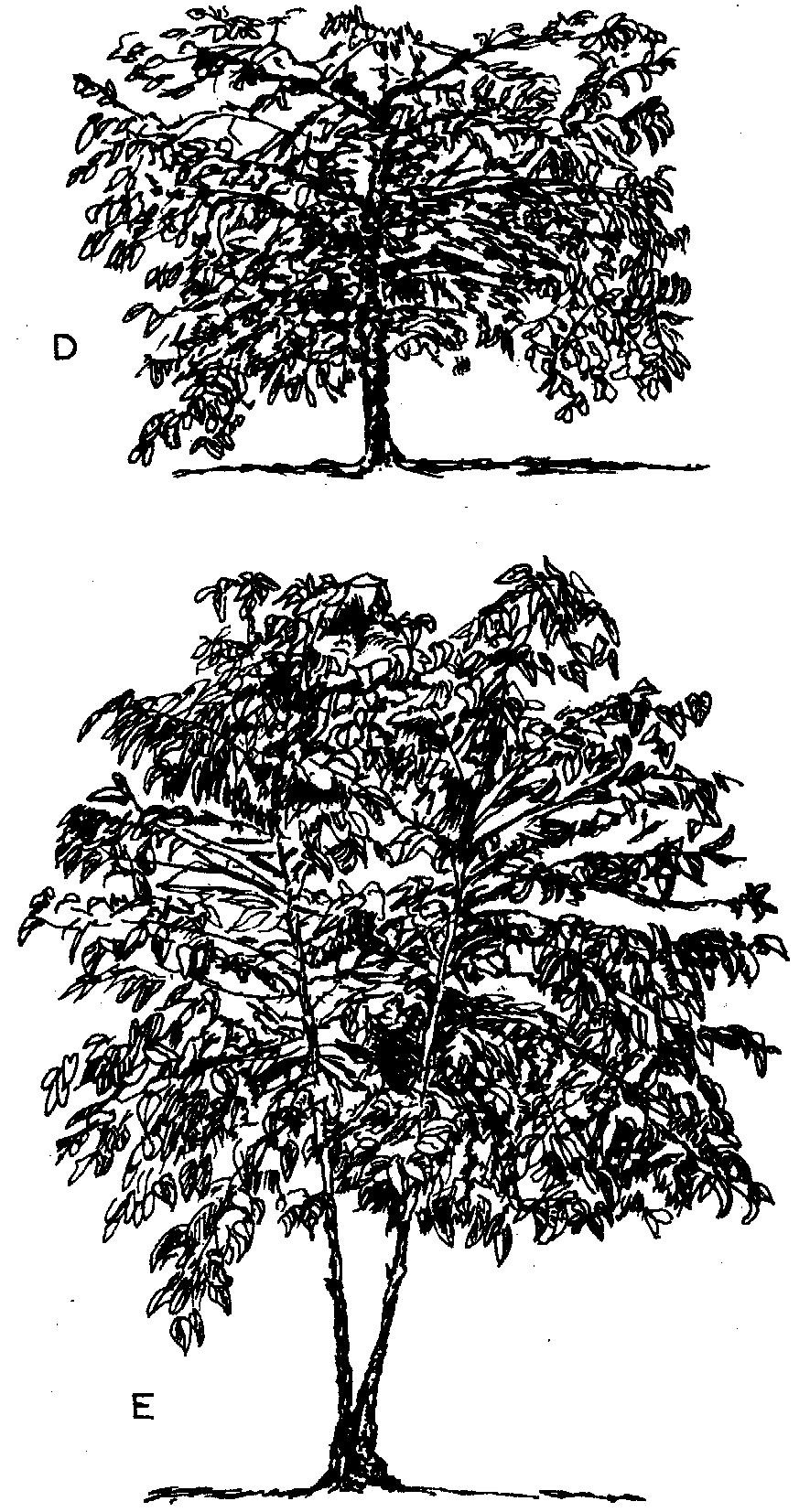
(b) Name the methods of propagation illustrated in diagrams A3 and B ( 2 mks)

A3……………………………………………………………………

B…………………………………………………………………….

1. The diagrams labeled D and E below are illustrations of coffee established

using two different formative pruning systems. Study them and answer the

 questions that follow.

(a) Name the system of pruning illustrated in diagram D above ( 1mk)

…………………………………………………………………………………………………

(b) Outline how the pruning system illustrated in diagram E is carried out (2 mks)

…………………………………………………………………………………………………

…………………………………………………………………………………………………

1. A member of young farmers club was advised to apply a complete fertilizer

30: 20:10 in a tomato plot measuring 10m long by 5m wide at the rate of 300kg

per hectare

(a) State the percentage of P205 in the complete fertilizer ( 1 mk)

…………………………………………………………………………………………………

(b) Calculate the amount of fertilizer the member would require for the plot (2 mks) (Show your working)

…………………………………………………………………………………………………

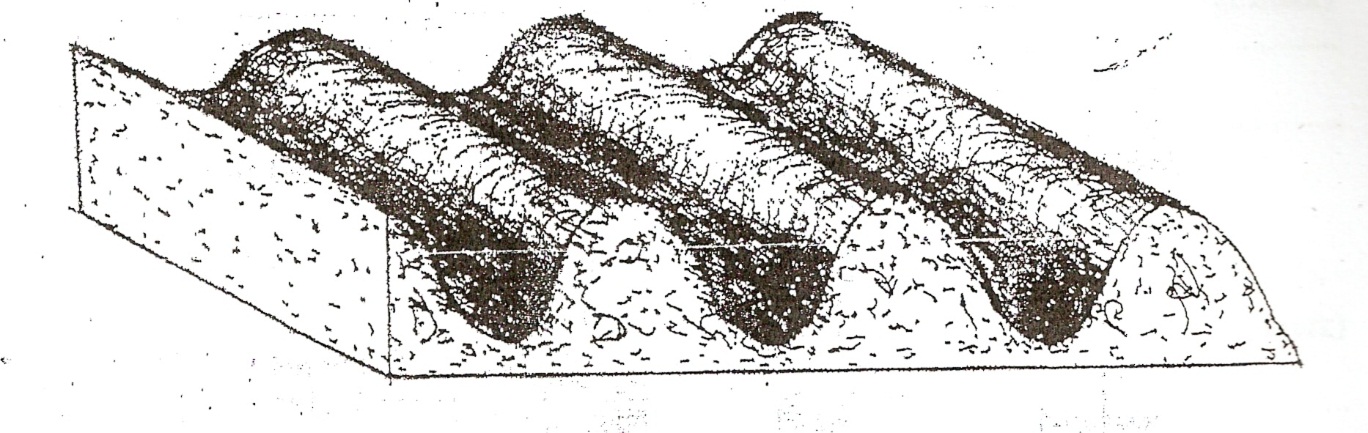
…………………………………………………………………………………………………

…………………………………………………………………………………………………

…………………………………………………………………………………………………

1. The diagram below illustrates a final seedbed after a tertiary operation done

during land preparation. Study it carefully and answer the questions that follow.



(a) Name the tertiary operation carried out on the seedbed (1mk)

…………………………………………………………………………………………………

(b) Describe how the tertiary operation named in one above is carried out. (1mk)

…………………………………………………………………………………………………

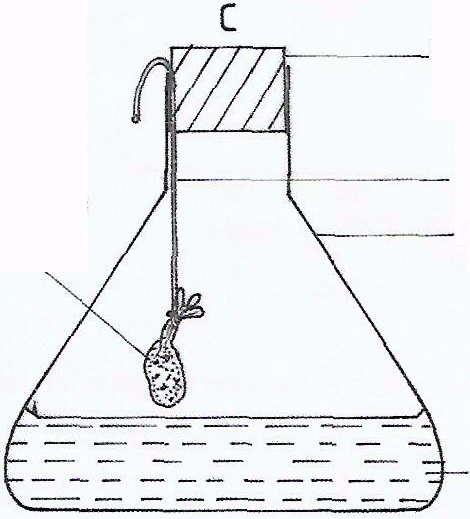
(c) Give two advantages of planting crops on a final seedbed illustrated above (2mrks)

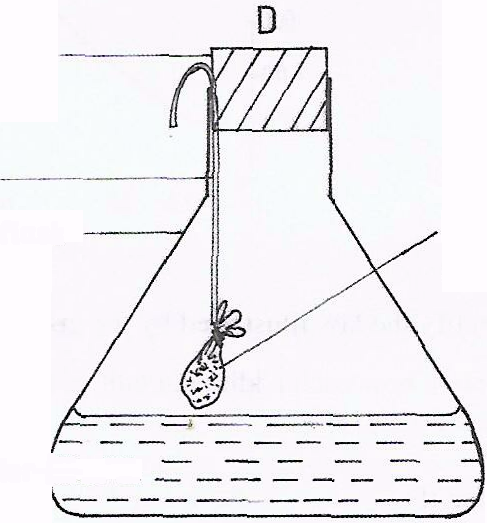
…………………………………………………………………………………………………

…………………………………………………………………………………………………

1. The diagrams below show a set up of an experiment to study an aspect of soil. The

set up was left undisturbed for rive hours. Study it and answer the questions that follow.





Rubber corks

String

Fresh garden soil in muslin bag

Strongly heated garden soil in muslin bag

Conical flask

Lime water

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

…………………………………………………………………………………………………

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

C………………………………………………………………………………. (1 mk)

D……………………………………………………………………………… (1 Mk)

c) Give a reason for each of your answers in (b) above

C……………………………………………………………………………….. (1mk)

D………………………………………………………………………………. (1mk)

**SECTION C** (40 MKS)

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

1. Describe the establishment of kales under the following sub – headings:

a) Nursery preparation

b) Establishment in the nursery

c) Management of seedlings in the nursery.

d) Transplanting of seedlings.

1. (a) Discuss the importance of irrigation if farming ( 12 mks)

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

1. State and explain:

(a) Five advantages of crop rotation. (10 mks)

(b) **Five** factors which may influence the spacing of crops. (10 mks)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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