**NAME: ………………………………………..……………….…… INDEX NO: …………………….……**

**SCHOOL: ………………………………………………………….. DATE: ……………..……….………**

**CANDIDATE’S SIGNATURE: ……………….….….……………**

**443/1**

**AGRICULTURE**

**PAPER 1**

**TIME: 2 HOURS**

**FORM 4**

**443/1**

**AGRICULTURE**

**PAPER 1**

**TIME: 2 HOURS**

**INSTRUCTIONS TO CANDIDATES:**

* *Write your* ***name*** *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 section* ***A,B*** *and* ***C***
* *Answer* ***all*** *the questions in section* ***A*** *and* ***B***
* *Answer any* ***two*** *questions in section* ***C.***
* *Answers should be written in the spaces provided in this booklet.*
* *This paper consists of 10 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.*

**FOR EXAMINERS USE ONLY**

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| **SECTION** | **QUESTIONS** | **MAX SCORE** | **CANDIDATES SCORE** |
| **A** | **1-15** | **30** |  |
| **B** | **16 - 19** | **20** |  |
| **C** |  | **20** |  |
|  | **20** |  |
| **TOTAL** | **Total score** | **90** |  |

**SECTION A (30 MARKS)**

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

1. What is meant by the following terms
2. Under sowing. (1mark)

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1. Over sowing. (1mark)

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1. Ammonification. (1mark)

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1. State four qualities of a scion for use in vegetative propagation materials (2marks)

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1. Give two advantages of compound fertilizer. (2marks)

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1. State four effects of soil depth on crop production. (2mark)

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1. Give four ways of improving sandy soils. (2marks)

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1. State two reasons for rolling in wheat crop productivity. (2marks)

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1. Give four roles of cost agricultural economics. (2 marks)

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1. State two effects of varying spacing in maize production. (1 mark)

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1. State three financial documents in agricultural production. (1½ marks)

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1. Give four disadvantages of concession land tenure systems. (2 marks)

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1. State five symptoms of viral diseases in crop production. (2½ marks)

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1. Give four factors that are considered when selecting a nursery site. (2 marks)

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1. Distinguish between seed dressing and seed inoculation. (2 marks)

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1. Give three reasons for cutting back in pyrethrum. (1½ marks)

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1. Give five ways in which consolidation helps to improve farm management. (2½ marks)

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**SECTION B (20 MARKS)**

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

1. i) The following is a farm record Mr. Makau had kept as at 30th June 2011. Study it carefully and

 prepare a balance sheet for the farm. (6 marks)

 Equity loan 180,000

 Equity overdraft 24,000

 Working tools 30,000

 Cash at hand 15,000

 Cash in bank 50,000

 Buildings 60,000

 Debtors 18,000

 Goats 48,000

 Land 70,000

 Creditors 49,000

 Ox plough 20,000

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 ii) Is Mr. Makau business solvent or insolvent? Explain (2 marks)

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1. The diagram below illustrates an agroforestry practice. Study it and answer the questions that follow.

1. Identify the agroforestry practice illustrated above. (½ marks)

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1. State advantages of the practice illustrated above. (3 marks)

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1. State three forms of agroforestry. (1½ marks)

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1. Study the pest below and answer the questions below.
	1. Identify the pest (1 mark)

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* 1. State two methods of controlling the pest. (2 marks)

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* 1. Name the crops attacked by the pest. (1 mark)

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1. The diagram below illustrates a field management practices in tomatoes
2. Identify the practice (1 mark)

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

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

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**SECTION C (40 MARKS)**

**Answer any two questions from this section in the spaces provided after question 22**

20**.** a)State the functions of the Kenya National Federation of Producers in Kenya (5 marks)

b) State five factors considered when drawing a farm plan (5 marks)

c) Describe the harvesting of cotton (10 marks)

1. a) Describe the production of carrots under the following sub headings

b) Seedbed preparation (3 marks)

c) Harvesting (4 marks)

d) Explain five cultural methods of weed control in bean production. (10 marks)

e) Outline three roles of sulphur in crop production. (3 marks)

1. a) Explain the effects of solifluction (6 marks)

b) Outline importance of grafting in oranges (4 marks)

c) Describe ways of improving labour efficiency (10 marks)

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