**Name: ……………………………………………... Index no ……..…......................................**

**School: …………………………………………….. Candidate’s sign …………………….......**

**Class………………………………………….…..… Adm No…………………...……………...**

**AGRICULTURE**

**PAPER 1**

**JULY 2018**

**TIME: 2 HOURS**

 **FORM FOUR MOKASA II MOCK**

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

 **Agriculture**

 **Paper 1**

**INSTRUCTIONS TO CANDIDATES:**

* *Write your* ***name, index number,******school, class*** *and* ***admission number*** *in the spaces provided.*
* *Sign and write the date in the spaces provided above.*
* *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.*

***For Examiner’s Use Only:***

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

*This paper consists of 12 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.*

**SECTION A (30MARKS)**

1. State **four** ways by which biological agents can enhance the process of soil formation.

 (2mks)

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1. State **four** disadvantages of flood irrigation. (2mks)

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1. Give **four** advantages of early planting in crop production. (2mks)

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1. State **four** importance of good soil aeration in crop production. (2mks)

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1. Distinguish between oversowing and undersowing in pasture establishment. (2mks)

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1. Give **four** advantages of establishing a mixed grass legume pasture instead of planting a pure grass pasture. (2mks)

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1. Give **four** farming practices that may lead to soil erosion. (2mks)

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1. Give **four** disadvantages of chemical pest control in crop production. (2mks)

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1. Give **four** reasons for constructing a shade over a nursery. (2mks)

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1. Give **four** reasons for inverting soil slices during primary cultivation. (2mks)

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1. Give **four** factors that may influence the price of agricultural commodities. (2mks)

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1. Give **two** examples for each of the following types of costs incurred in poultry production.
2. Variable costs (1mk)

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1. Fixed costs (1mk)

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1. Distinguish between pollarding and coppicing as used in agro-forestry. (2mks)

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1. Give **four** methods used for seed treatment of tree species before planting in agro-forestry. (2mks)

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1. Name **four** statutory boards that are involved in the marketing of crop produce in Kenya.

 (2mks)

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**SECTION B (20MARKS)**

1. a) Differenciate between complete and incomplete compound fertiliser. (1mk)

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b) Following the advice derived from soil testing that all the three primary macro nutrients are needed in a hectare of land and that 120kg N, 60kg $P\_{2}O\_{5}$ and 80kg $K\_{2}O$ should be applied per hectare and if only the following fertilisers are available; SA 21%N, SSP 18% $P\_{2}O\_{5}$ and KCL 60% $K\_{2}O$.Calculate the amount of each fertiliser required.

 (4mks)

1. The diagram below shows a grafted orange.Study it and answer the questions that follow.

 

1. Identify the method of grafting illustrated above. (1mk)

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1. Name the parts labelled X and Y. (1mk)

X………………………………………………………………………………………...

Y………………………………………………………………………………………...

1. Outline **two** desirable characteristics of the part labelled Y that determines its selection. (2mks)

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1. What is the reason for tying the parts above after grafting? (1mk)

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1. Study the illustration below that show a tomato plant and answer the questions thatfollow

 

1. Give **two** management practices that have not been carried out on the plant. (2mks)

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1. Describe the procedure followed when spraying a tomato crop with a fungicide powder using a knapsack sprayer to control blight. (3mks)

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1. The diagrams below show some common weeds.Study them and answer the questions that follow.

 

1. Identify the weeds labelled A and B. (2mks)

A……………………………………………………………………………………………

B…………………………………………………………………………………………….

1. Why should weed B be removed from a field of fodder crop? (1mk)

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1. Give a reason why it is difficult to control weed A above. (1mk)

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1. Name **one** category of herbicide depending on the mode of action that can be used to control weed A. (1mk)

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**SECTION C (40MARKS)**

1. a) Describe **ten** uses of farm records. (10mks)

b) Describe the principles that govern the functioning of co-operative societies in Kenya.

 (10mks)

1. a) State and explain the different methods of farming. (10mks)

b) Describe carrot production under the following sub-headings

1. Land preparation (2mks)
2. Planting. (4mks)
3. Field management practices. (4mks)
4. a) State and explain **five** methods of fertiliser application. (10mks)

b) Explain **five** structural methods of soil and water conservation. (5mks)

c) Describe the harvesting of sugarcane. (5mks)

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