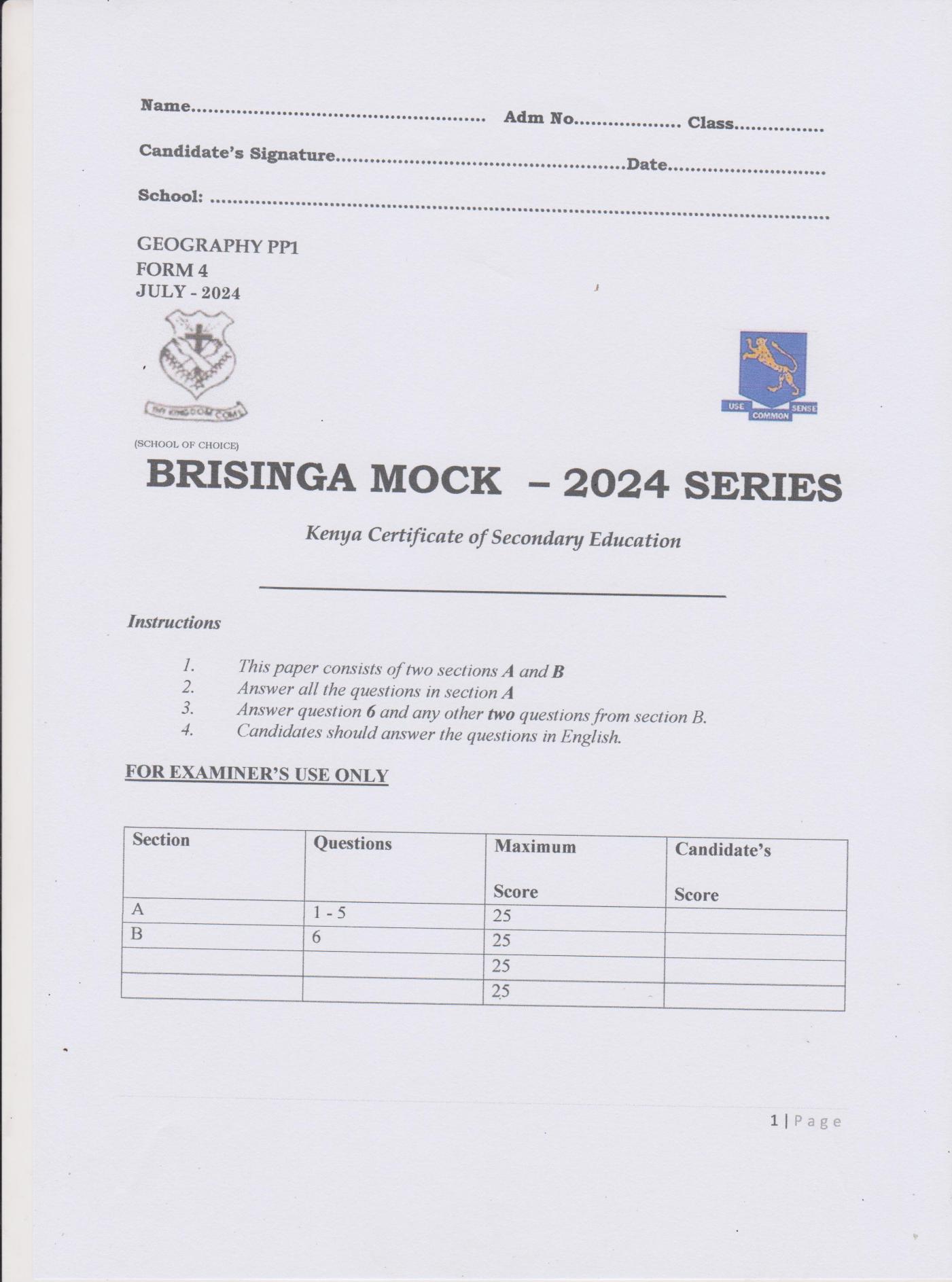
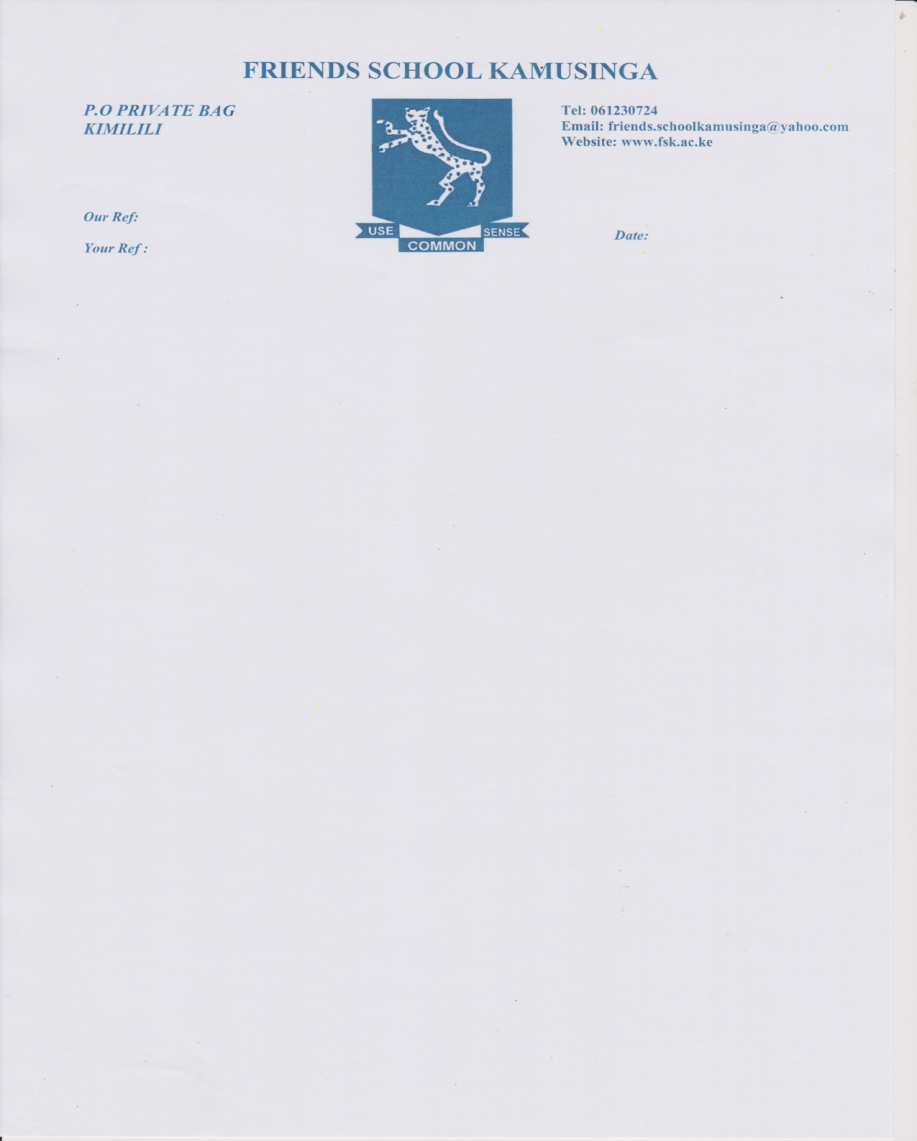
**Name: ……………………………………………………………Index No.:…………………….........**

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

**CLASS..................................................................................... Date:…..………………………………**

**443/1**





**AGRICULTURE**

**PAPER 1**

**2024**

**TIME: 2HOURS**

**BRISINGA EXAMINATION**

***Date : 11th Thur. 2024***

***Time: 2.00pm – 4.00pm***

**2024**

**FORM FOUR**

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

**AGRICULTURE**

**PAPER 1**

**TIME: 2 HOURS**

**INSTRUCTIONS TO THE CANDIDATES**

1. *Write your* ***name*** *and* ***index number*** *in the spaces provided above.*
2. *This paper consists of* ***three*** *sections;-****A, B*** *and* ***C.***
3. *Answer* ***all*** *questions in section* ***A*** *and* ***B*** *and any two questions in section C*
4. *All answer must be written in the spaces provided.*
5. ***This paper consist of 13 printed pages.***
6. ***Candidates should check the question papers to ascertain that all the pages are printed as indicated and that no questions are missing.***
7. ***Candidates should answer the question in English.***

**For Examiners Use Only**

|  |  |  |  |
| --- | --- | --- | --- |
| **Section** | **Question** | **Maximum Score** | **Candidates Score** |
| **SEC -A** | 1-15 | 30 |  |
| **SEC -B** | 16-19 | 20 |  |
| **SEC- C** | 20 | 20 |  |
| 21 | 20 |  |
| 22 | 20 |  |
|  | **TOTAL SCORE** | 90 |  |

**SECTION A (30 marks)**

**ANSWER ALL QUESTIONS IN THIS SECTION**

1. State **four** reasons for practicing grafting in citrus production (2mks) …………………………………………………………………………………………

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2. Mention **four** types of soil erosion by water (2mks)

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3. Differentiate between coppicing and pinching out (2mks)

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4. Give **four** benefits of possessing certificate of land ownership (2mks) …………………………………………………………………………………………

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5. Give **one** reason why each of the following nursery management practices are carried out. (2mks)

(i) Hardening off

…………………………………………………………………………………………

…………………………………………………………………………………………

(ii) Watering before transporting seedlings from the nursery bed

…………………………………………………………………………………………

…………………………………………………………………………………………

6. Name **four** effects of excessive nitrogenous fertilizer application on tomatoes (2mks)

…………………………………………………………………………………………

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7. State **four** early maturing varieties of cabbages (2mks)

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8. State **four** ways of determining national development. (2mks)

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9. List **four** methods of land acquisition (2mks)

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10. State **four** roles of trees in soil and water conservation (2mks)

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11. State any **four** types of livestock farming (2mks)

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12. a) State **two** ways by which a soil of pH 3 can be raised to pH 5 (1 mk)

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…………………………………………………………………………………………

b) Name any **two** types of soil structures (1mk)

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…………………………………………………………………………………………

13. State four factors that determine the number of secondary cultivation to be done on a seedbed (2mks)

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14. Mention any **four** factors that should be considered when selecting site for making compost manure (2mks)

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15. a) Define the following terms:

i) Opportunity cost (1/2 mk)

…………………………………………………………………………………………

…………………………………………………………………………………………

ii) Agricultural economics (1/2mk)

…………………………………………………………………………………………

…………………………………………………………………………………………

b) Give **two** types of farm records that a large scale farmer should keep (1mk)

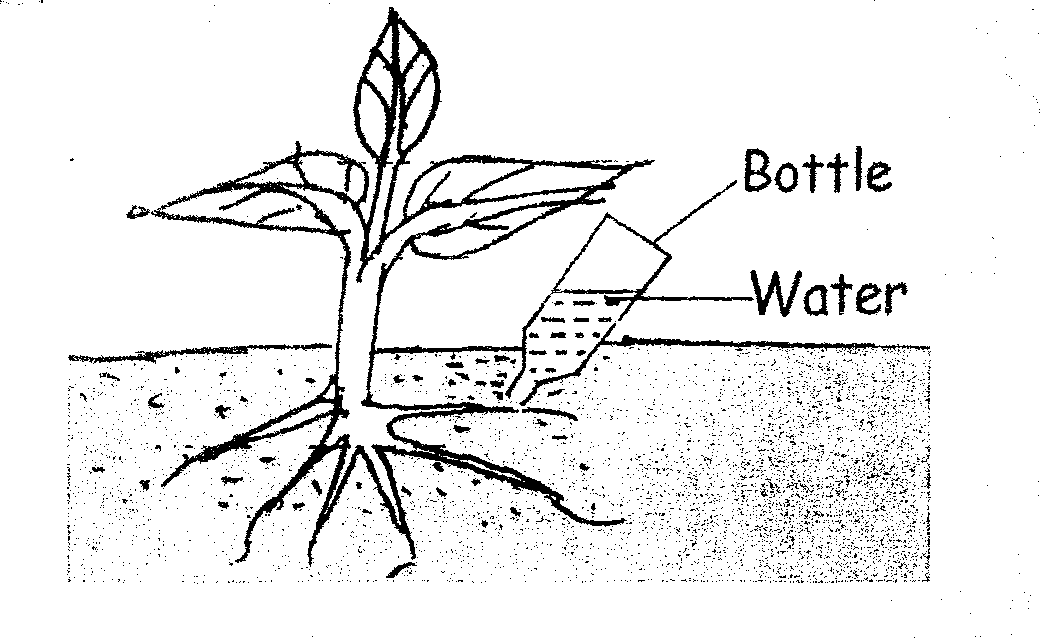
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**SECTION B (20 marks)**

**ANSWER ALL QUESTIONS IN THIS SECTION**

16. The diagram below shows a method of irrigation



1. Identify the method (1 mark)

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…………………………………………………………………………………………

b) State **two** advantages of the irrigation system named in (a) above. (2mks)

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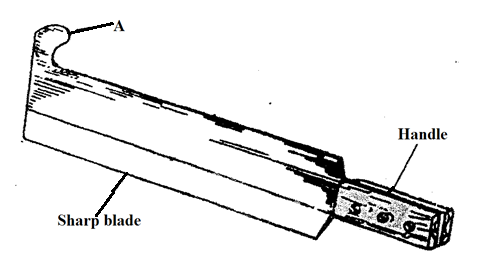
c) State any **two** factors to be considered when choosing the method of irrigation

to use in an area (2mks)

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…………………………………………………………………………………………

17. The diagram below is a tool used to harvest crops in the farm. Use it to answer the questions that follow



1. Identify the tool represented above (1 mark)

…………………………………………………………………………………………

b) Name the crop harvested by use of the tool above. (1 mark)

…………………………………………………………………………………………

c) State **one** reason for maintaining the above tool. (1 mark)

…………………………………………………………………………………………

d) Give **one** reason why the crop named in (b) above should be cut at ground

level (1 mark)

…………………………………………………………………………………………

…………………………………………………………………………………………

e) Give a reason why the leaves of the crop should be removed after cutting

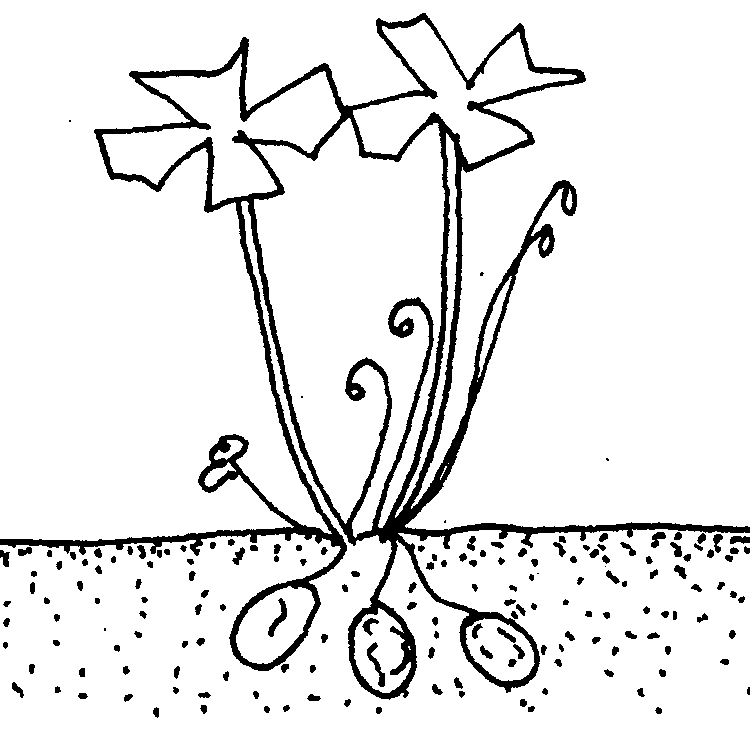
(1 mark)

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18. An agronomist recommends application of 130kg N, 55kg P2O5 and 65kg K2O after testing a soil sample. Calculate the amount of urea (46%N), Single super phosphate (20% P2O5) and Potassium chloride (50% K2O) that should be applied on the land. (5mks)

19. The diagram below illustrates a weed



1. Identify the weed (1 mark)

…………………………………………………………………………………………

1. State **one** competitive ability of the weed illustrated above. (1 mark)

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…………………………………………………………………………………………

c) State **two** mechanical control measures for the weed above (2mks)

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d) Classify the weed above according to plant morphology (1 mark)

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**SECTION C (40 MARKS)**

**ATTEMPT ANY TWO QUESTIONS IN THE SPACE PROVIDED**

20. a) Describe **five** qualities of mother plant that should be considered when

selecting vegetative materials for planting (5 marks)

b) List **seven** benefits of using organic material for mulching (7 marks)

c) Describe the field production of nappier grass under the following

sub-headings

i) Planting (3 marks)

ii) Fertilizer and manure application (3 marks)

iii) Utilization (2marks)

21. a) Describe the procedure of silage making (8 marks)

b) State and explain four factors that determine the depth of planting (8 marks)

c) Outline **four** roles of Agriculture in Kenya’s economy (4 marks)

22. a) Outline **seven** effects of land fragmentation and subdivision (7 marks)

b) State and explain three methods of pruning (6 marks)

c) Describe the establishment of vegetative propagation nurseries (7 marks)

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