NAME……………………………………………………….. INDEX NO…………..

443/1
AGRICULTURE
PAPER I
THEORY
JULY/AUGUST 2010
TIME: 2 HOURS

KENYA CERTIFICATE OF SECONDARY EDUCATION
FORM FOUR EVALUATION EXAMINATION

<u>INSTRUCTION</u>
1) The paper consists of three sections A, B and C.

2) Answer all questions in section A and B in the spaces provided

3) Answer any TWO questions in section C in the spaces provided.

<u>FOR EXAMINER'S USE ONLY</u>

SECTION	QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
A	1 – 11	30	
B	12 – 16	20	
C	17	20	
	18	20	
	19	20	
TOTAL SCORE		90	

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SECTION A (30 MARKS)

1) a) State four achievements that can be made with high level of education and technology in agriculture. (2 mrks)

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b) List four benefits that Kenyan farmers can get from liberalisation of the economy. (2 mrks)

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2. State four roles played by living organisms in the process of soil formation. (2 mrks)

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3. List three factors that determine the choice of correct implements for primary tillage. (1 ½ mrks)

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b) State three importance of sub-soiling. (1 ½ mrks)

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4. a) Distinguish between a weir and a dam (2 mrks)

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b) State two disadvantages of using the hydram pump during irrigation.   (1 mrk)

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5. a) State five characteristics of plants used as Green Manure.   (2 ½ mrks)

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b) Which four factors should be considered when siting a composit pit?   (2 mrks)

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6. a) State four deficiency symptoms that would be seen in crop lacking potassium. (2 mrks)

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b) Give two reasons why soil should be sampled.   (1 mk)

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7. List down three types of nurseries   (1 ½ mrks)

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8. a) What is a ledger in farm accounts   (1 mk)

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b) Name four examples of liabilities in a balance sheet.   (2 mrks)

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9. List three importances of tissue culture in crop production.   (3 mrks)

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10. Mention two types of mulching materials   (1 mk)

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11. State two problems that a farmer may experience for failing to cut back pyrethrum. (2 mrks)

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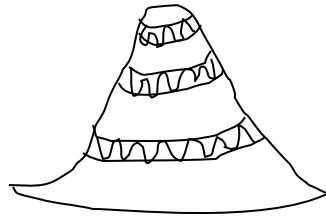
SECTION B (20 MRKS)

Answer all questions in this section in the spaces provided.

12. Study the diagram below and answer the questions that follow.

x on tomato fruit

i)   Identify x ………………………………………………..……………………………….(1mk)

ii)   State the most destructive stage of the organism………….……………………(1 mk)

iii)   How can the pest be controlled ……………………………………………...…….(1 mk)

13. The diagram below shows a type of soil structure.

a) Identify the soil structure………………………………………………………………….(1 mk)

b) Describe the formation of the above soil structure…………………………………

……………………………………………………………………………………….. (2 mrks)

c) State two disadvantages associated with the above structure.   (2 mrks)

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14. The table below shows the average spacing for some crops. Study it and answer the questions that follow.

Crop	Spacing
Beans	30cm x 15cm
Maize	90cm x 30cm
Tea	150cm x 75cm

a) What three factors determine correct spacing for crops.   (3 mrks)

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b) What is the main aim of correct crop spacing   (1 mk)

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c) Calculate the appropriate plant population per hectare for maize.   (2 mrks)

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15. Give three advantages of cooperative land tenure system.   (3 mrks)

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16. State three disadvantages of using herbicides. (3 mrks)

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SECTION C (40 MRKS)

Answer any TWO questions in the spaces provided.

17. Describe the cultural methods used in controlling crop pests. (20 mrks)

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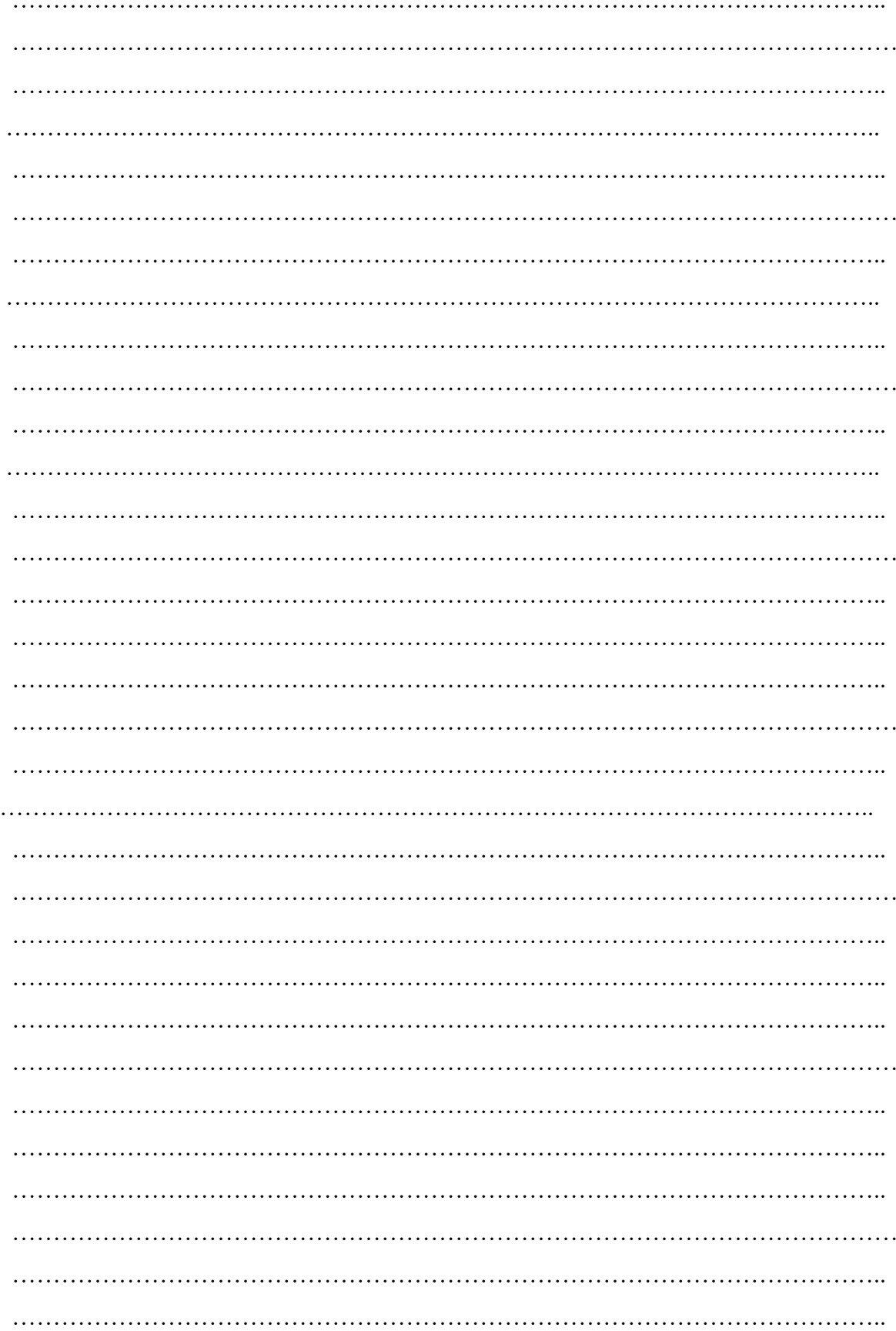
18. Using the data below answer the questions that follow.

Fertilizer input (Bags)	Maize output (Bags)	Total Revenue Kshs.	Total Cost Kshs.	Marginal Revenue Kshs.	Marginal Cost Kshs.	Net Revenue (Kshs)
0	0	0	0	0	0	0
2	14	28000	5600	-	-	-
4	39	78000	11200	-	-	66800
6	61	122000	16800	42000	-	-
8	78	156000	22400	-	-	-
10	87	174000	28000	-	-	-
12	88	176000	23600	-	56000	136400

a) Work out the Marginal revenue, Marginal cost and Net revenue at all levels of production and complete the table. (7 mrks)

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b) On the graph paper provided, draw a graph of output against input. (4 mrks)
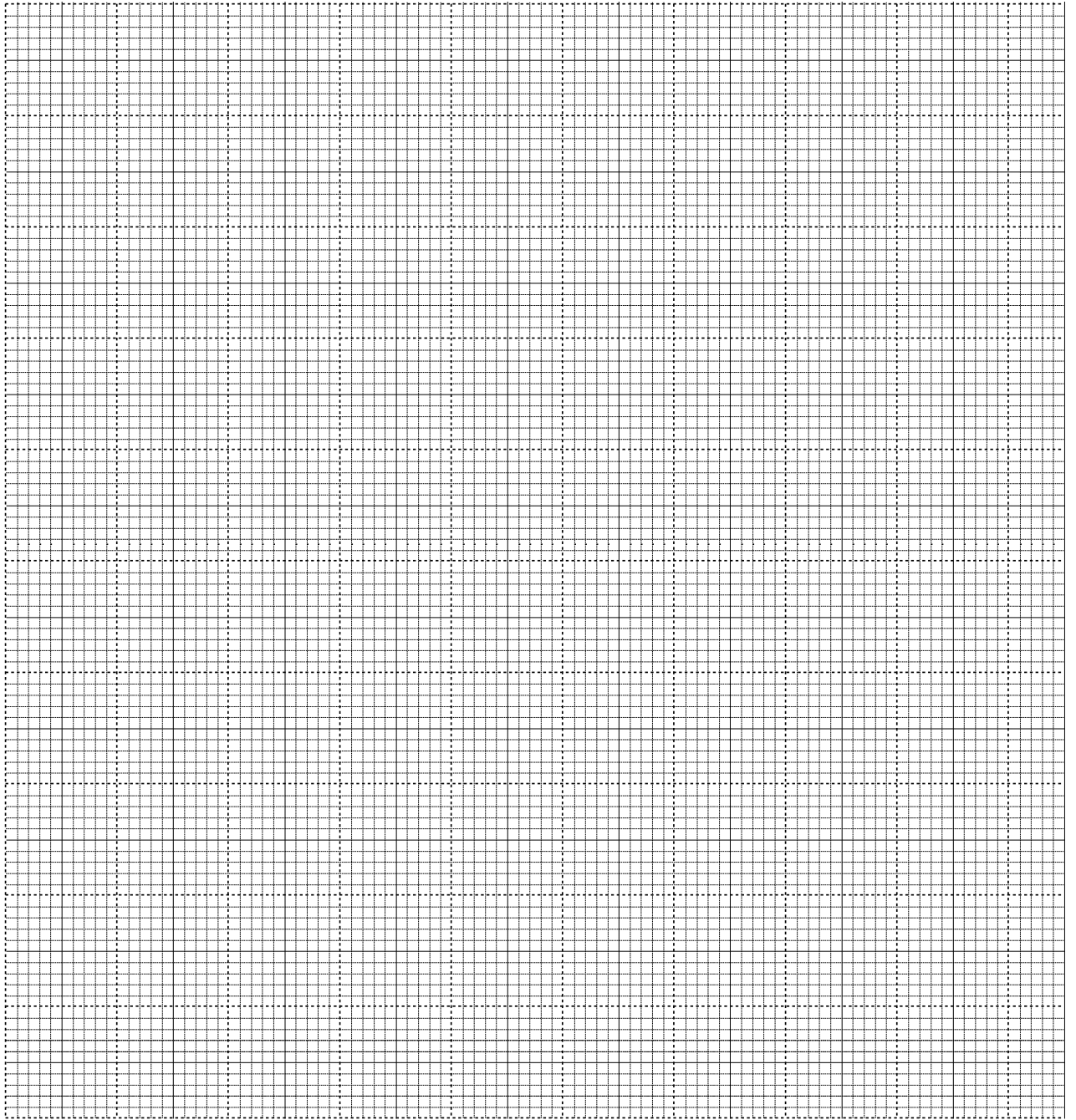
c) From the graph, work out the maize output at the input levels 3 and 9. (2 mrks)

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d) State the level of input where maximum profit is realised and give a reason. (2 mrks)

Level ………………………………………………………………………………………

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Reason……………………………………………………………………………..……………

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e) What is elaciticity of Demand? (Ed) (1 mk)

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f) Enumerate the factors that determine the elasticity of demand. (4 mrks)

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19. a) Explain 10 benefits of Agro forestry. (10 mrks)

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b) Outline problems facing Agriculture in Kenya.   (5 mrks)

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c) Give reasons for carrying out minimum tillage.   (5 mrks)

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