

Name: \_\_\_\_\_ Index No: \_\_\_\_\_

2013  
AGRICULTURE  
P.T.E  
July/August 2013  
Time:  $2\frac{1}{2}$  hours

Candidate's Signature: \_\_\_\_\_

Date: \_\_\_\_\_



THE KENYA NATIONAL EXAMINATIONS COUNCIL

**PRIMARY TEACHERS EXAMINATION**

AGRICULTURE

$2\frac{1}{2}$  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** sections; A, B and C.*

*Answer **ALL** the questions in sections A and B.*

*Answer any **THREE** questions from section C.*

*Answers to **ALL** the questions must be written in the spaces provided in this booklet.*

*Do not remove any pages from this booklet.*

*Candidates should answer all the questions in English.*

**For Examiner's Use Only**

Section	Question	Maximum Score	Candidate's Score
A	1 - 5	30	
B	6 - 26	40	
C		10	
		10	
		10	
Total Score			

**This paper consists of 12 printed pages.**

**Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**

**SECTION A (30 marks)**

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

1. (a) State **two** factors considered when preparing a table of specifications in test development. (2 marks)

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\_\_\_\_\_

- (b) Explain **three** factors that make the use of group experiment suitable in teaching. (3 marks)

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2. (a) Give **two** reasons why the discussion method is used in the teaching of science. (2 marks)

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- (b) State **three** preparations that a teacher should make before engaging learners in a group discussion. (3 marks)

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- (c) State **six** characteristics of an ideal model for learning purpose. (3 marks)

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3. (a) A teacher is expected to lead learners through an experiment in a science lesson. State **four** preparations that the teacher should put in place before the lesson. (2 marks)

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- (b) State **three** ways in which a lesson can be introduced. (3 marks)

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- (c) Give **four** reasons why a lesson should have a conclusion. (2 marks)

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4. (a) Explain **three** ways in which a teacher can handle a learner's response when using the questioning technique. (3 marks)

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- (b) During scheming, a teacher has a lesson topic; seedbed preparation:

- (i) state **one** skill objective the teacher can have for the topic; (2 marks)

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- (ii) give **two** learning activities the teacher can have for the lesson so as to achieve the above objective. (2 marks)

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5. In a multiple choice science test, candidates' selection of the four options provided for a question was as follows:

OPTION	NUMBER OF CANDIDATES
A	7,048
B	195
C	186
D	171

If option A was the key:

- (a) determine the difficult index of the question; (1 mark)

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- (b) explain the appropriateness of the question in the test. (2 marks)

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### SECTION B (40 marks)

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

6. State **four** roles of agriculture in the economic development of Kenya. (2 marks)

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7. State **four** ways in which the crop museum section in a school farm should be used for teaching. (2 marks)

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8. State **four** physical characteristics of the dromedary species of camels in livestock production. (2 marks)

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9. Name **three** systems of outbreeding used in livestock improvement. (1½ marks)

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10. State **three** reasons why soil is important in crop production. (1½ marks)

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11. Give **two** functions of the Queen bee in the colony. (2 marks)

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12. List **four** harmful effects of strong wind on growing crops. (2 marks)

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13. Name **two** methods of reclaiming semi-arid areas. (1 mark)

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14. Why is tsetsefly control considered a land reclamation method? (1 mark)

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15. State **four** body conformation features of a good dairy cow for breeding. (2 marks)

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16. The diagram below shows a tool used on the farm.



(a) Identify the tool. ( $\frac{1}{2}$  mark)

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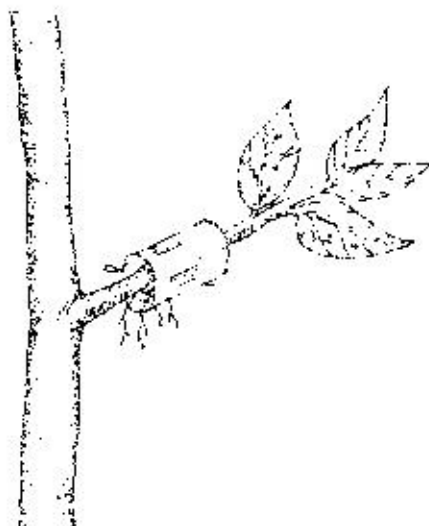
(b) State **two** uses of the tool. (1 mark)

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17. State **three** functions of Agricultural research services in livestock production. ( $1\frac{1}{2}$  marks)

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18. The diagram below illustrates a type of vegetative propagation used in crop production. Study it and answer the questions that follow.



- (a) Name the type of propagation shown in the diagram. ( $\frac{1}{2}$  mark)

- (b) Describe the procedure followed when carrying out the propagation illustrated above. (4 marks)

19. Name **two** intensive poultry rearing systems. (1 mark)

20. State **four** methods of utilising pastures. (2 marks)

21. (a) Differentiate between macro-nutrients and micro-nutrients as used in soil fertility. (1 mark)

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- (b) State **four** symptoms of nitrogen deficiency in crops. (2 marks)

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22. State **one** use for each of the following farm structures:

- (a) crush; (½ mark)

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- (b) green house; (½ mark)

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- (c) brooder; (½ mark)

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- (d) silo. (½ mark)

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23. Name any **three** types of beehives used in Kenya. (1½ marks)

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24. State **four** advantages of keeping livestock healthy. (2 marks)

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25. State **four** requirements for clean milk production. (2 marks)

26. State **four** effects of soil pH on crop production. (2 marks)

**SECTION C (30 marks)**

*Answer any **THREE** questions from this section in the spaces provided after question 30.*

27. Explain the factors considered when determining spacing in crop production. (10 marks)

28. Describe the management of piglets from birth to weaning. (10 marks)

29. (a) Explain **five** disadvantages of land ownership through concession. (5 marks)

(b) Describe the roles of an effective farm manager. (5 marks)

30. (a) State **five** effects of aphids on vegetable crops. (5 marks)

(b) State **five** advantages of adding manure to sandy soils. (5 marks)