**NAME ……………………………………..……………….. DATE …………………………………**

**INDEX NO. …………….……….……..…..… CANDIDATE’S SIGNATURE …………..…..………..**

443/2

AGRICULTURE

PAPER 2 (THEORY)

TIME: 2 HOURS

**MBOONI EAST SUB – COUNTY FORM FOUR JOINT EVALUATION TEST, 2014**

*Kenya Certificate of Secondary Education*

443/2

AGRICULTURE

PAPER 2 (THEORY)

JULY/AUGUST 2014

TIME: 2 HOURS

**INSTRUCTIONS TO CANDIDATES**

1. Write your name and index number in the spaces provided above.
2. This paper has **THREE** sections: A , B and C
3. Answer **ALL** the questions in section A and B and any **TWO** questions in section C
4. ALL answers **MUST** be written in the spaces provided.
5. Do not remove any pages from this booklet.
6. This paper consists of 10 printed pages. Candidates should check to ensure that all pages are printed as indicated and no questions are missing

**FOR EXAMINER’S USE ONLY**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Questions** | **Maximum score** | **Candidate’s score** |
| A | **01 - 17** | **30 marks** |  |
| B | **18 - 21** | **20 marks** |  |
| C | **22 - 24** | **40 marks** |  |
| **Total score** | **90** |  |

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Agriculture

Paper 2 (theory)

**SECTION A (30MARKS)**

**Instructions: Answer all the questions in the space provided**

1. State four methods of identification in livestock production? (2marks)

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2. Explain the meaning of the following terms as used in livestock health?

 (i) A notifiable disease (1mark)

 ………………………………………………………………………………………………………………………………………………………………………………………………………………………………

 (ii) Prophylactics (1mark)

 ………………………………………………………………………………………………………………………………………………………………………………………………………………………………

3. Give two reasons for including roughages in diet of non-ruminants? (1mark)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

4. State four qualifies of a good grain store? (2marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

5. Give four ways a farmer would adopt to improve production in indigenous cattle? (2marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

6. State two factors to consider when formulating livestock ration? (2marks)

 ………………………………………………………………………………………………………………………………………………………………………………………………………………………………

7. State three importances of farm buildings? (1½ marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

8. State four symptoms of Newcastle disease in poultry? (2marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

9. What is creep feeding in pig production? (1mark)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

10. State the use each of the following tools and equipment’s? (2marks)

 (i) Routers

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

 (ii) Tinsnips

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

 (iii) Wood rasp

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

 (iv) Chipping hammers

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

11. State three methods of treating timber for building construction? (1½ marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

12. State two ways in which feed additions are important in animal nutrition? (2marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

13. State four predisposing factors for mastitis in dairy cattle? (2marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

14. Give four examples of three host tick? (2marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

15. State four general uses of solar energy? (2marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………

16. Name two causes of bloat in farm animals? (2marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

17. Name two light breeds of poultry? (1mark)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

**SECTION B (20MARKS)**

**Answer all questions in this section**

18. The diagram below represents livestock production tool. Study it and answer the questions that follow?

a) Identify the tool? (1mark)

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b) Name two uses of the tool? (1mark)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

c) Give one advantage of the tool above in male cattle? (1mark)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

d) Name two other livestock production tools which may be used for the same purpose? (2marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

19. The following is a an illustration of the reproduction system of a cow

a) Label parts A –D (2marks)

 A

 ...……………………………………………………………………………………………………………

 B

 ...……………………………………………………………………………………………………………

 C

 ...……………………………………………………………………………………………………………

 D

 ...……………………………………………………………………………………………………………

b) State the functions of each of the parts labeled above? (2marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

c) Name two diseases which can be transmitted through natural mating? (1mark)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

20. A poultry farmer has maize containing 8% DCP and soya beans containing 43% DCP.If the farmer wants to make 100kg’s of the feed, calculate the amount of each feed stuff required using Pearson’s square method? (5mark)

21. Below is an illustration of an internal parasite in livestock.

a) Identify the parasite? (1mark)

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b) Name one final host for the parasite? (1mark)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

c) Name the intermediate host for the parasite? (1mark)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

d) State two measures used to control the parasite? (2marks)

 ...……………………………………………………………………………………………………………………………………………………………………………………………………………………………

**SECTION C (40MARKS)**

**Answer two questions in this section**

22. a) State five factors that determine the choice of a poultry rearing system by farmers? (5marks)

 b) Discuss battery cage system of rearing poultry under:

 (i) Advantages (6marks)

 (ii) Disadvantages (5marks)

 c) Give four factors to consider in sorting and grading eggs? (4marks)

23. a) Explain the maintenance practices of the ignition system of a tractor? (5marks)

 b) State the care and maintenance practices of a tractor battery? (5marks)

 c) Outline the operational differences between disc and mould-board plough? (6marks)

 d) State four maintenance practices on a tractor mounted crop sprayer? (4marks)

24. a) State six effects of parasites in livestock ? (6marks)

 b) Describe the lifecycle of taenia Solium species of tapeworm? (8marks)

 c) State four control measures of tapeworm? (4marks)

 d) Give two reasons for keeping livestock healthy? (2marks)

 ...…………………………………………………………………………………………………………………………………………………………………………………………………………………………… ...…………………………………………………………………………………………………………………………………………………………………………………………………………………………… ...…………………………………………………………………………………………….……………………………………………………………………………………………………………………………… ...………………………………………………………………………………………….………………………………………………………………………………………………………………………………… ...……………………………………………………………………………………….…………………………………………………………………………………………………………………………………… ...………………………………………………………………………………………….………………………………………………………………………………………………………………………………… ...………………………………………………………………………………………….………………………………………………………………………………………………………………………………… ...………………………………………………………………………………………….………………………………………………………………………………………………………………………………… ...………………………………………………………………………………………….………………………………………………………………………………………………………………………………… ...………………………………………………………………………………………….………………………………………………………………………………………………………………………………… ...……………………………………………………………………………………….…………………………………………………………………………………………………………………………………… 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