**NAME:…………………………………………………………… ADM. NO…………………………..…..…..**

**SCHOOL:……………………………………………………SIGNATURE……………………………… DATE…………….……………………………….**

**443**

**AGRICULTURE**

**(Theory)**

**TIME: 2 HOURS**

**SET 4**

**FORM TWO**

**INSTRUCTIONS TO CANDIDATES**

* Write your name and Adm. number in the spaces provided.
* Answer ALL the questions in the spaces provided,

**FOR EXAMINERS USE ONLY**

|  |  |  |
| --- | --- | --- |
| Question | Maximum score | Candidates score |
| 1-29 | 100 |  |

***This paper consists of 10 printed pages. Candidates should check the question paper to ensure that all the pages are printed as indicated and no questions are missing.***

**1.** What are essential nutrients ? **(1 mark)**

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

**2.** Name **two** examples of liming elements **(1mark)**

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

**3.** State **three** roles of Nitrogen in vegetable production **(3 marks)**

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**4.** A farmer was advised to apply 40kg of P205 per hectare of maize at planting time. The phosphatic fertilizer available was single superphosphate containing 20 % P2O5.

i) Calculate the amount of Single superphosphate fertilizer the farmer would apply in two hactares **(2 marks)**

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**5.** State  **two** ways in which a farmer can raise the PH of the soil. **(2 marks)**

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**6.** State **two** things that would happen to the element nitrogen when ammonium sulphate fertilizer is applied to the field of maize. **(2 marks)**

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**7. a)** Give **three** benefits of vegetative propagation in oranges **(3 marks)**

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**b)** Differentiate the terms bulb and bulbils  **(2 marks)**

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**c)** State **one** environmental condition necessary for the successful chitting in Irish potatoes **(1 mark)**

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**8.** Give **four** factors that determine the depth of planting in crops **(2marks)**

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**9.** Give **three** benefits of crop rotation **(4 marks)**

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**10.** State **two** disadvantages of Monocropping **(2 marks)**

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**11.** Give **four** benefits of using organic mulch for mulching **(2 marks)**

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**12.** State **four** reasons for pruning fruit coffee **(4 marks)**

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**13.** State **two** practices which help to achieve optimum plant population  **(2 marks)**

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**14. a)** What is earthing up in crop production**? (1 mark)**

……………………………………………………………………………………………………………………………………………………………………………………………………………………………………  **b)** Give a reason for earthing up in each of the following crops **(4 marks)**

**i)** Irish potatoes………………………………………………………

**ii)** Groundnuts……………………………………………………………

**iii)** Tobacco………………………………………………………………

iv) Maize………………………………………………………………….

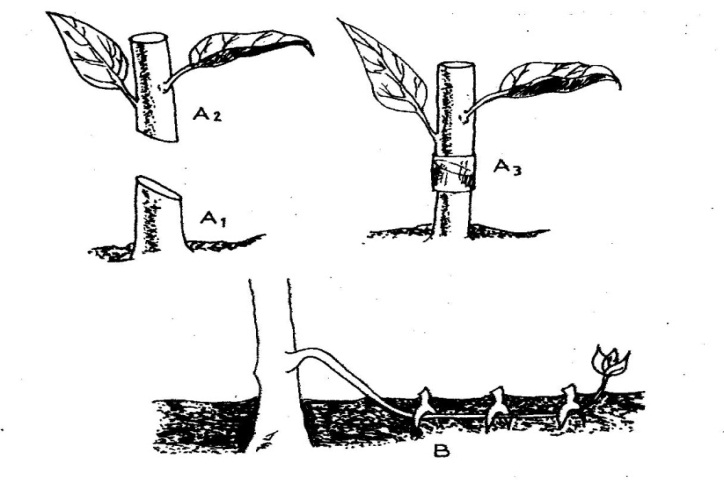
**15. a)** State **two** factors that determine the method of harvesting to be used by a farmer **(1 mark)**

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…………………………………………………………………………………………………………………………………………………………………………………………………………………………………… **b)** The stem cuttings should be obtained from the middle part of the shoot. Give a reason why the top and bottom parts are not suitable for stem cutting. **(2 marks)**

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**16.** The diagrams labeled A1, A2, A3, and B below illustrate materials and methods of vegetative propagation. Study them and answer the questions that follow.



**(a)** Name the parts labeled A1, and A2 **(1 mark)**

A1……………………………………………………………………

A2…………………………………………………………………..

**(b)** Name the methods of propagation illustrated in diagrams A3 and B **(2 marks)**

A3……………………………………………………………………….

B…………………………………………………

**17. a)** Name **two** notifiable diseases in cattle. **(1 mark)**

…………………………………………………………………………………………………………………………………………………………………………………………………………………………………… **b)** Name **two** vector borne diseases in livestock **(1 mark).** ……………………………………………………………………………………………………………………………………………………………………………………………………………………………………

**18.** Name **one**  intermediate host for each of the following livestock parasites **(1 mark)**

**(a)** Liver fluke (Fasciola spp)

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

**(b)** Taenia solium

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

**19.** State **two** ways by which proper feeding contribute to disease control in livestock. **(2 marks)**

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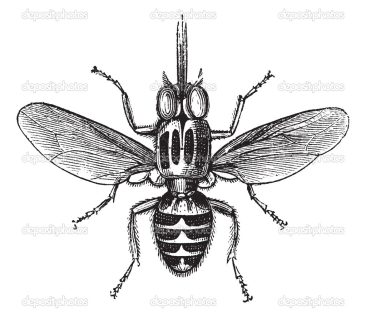
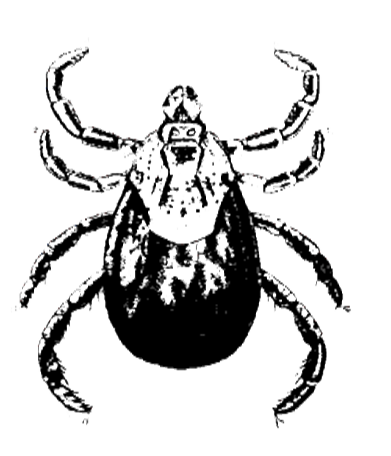
**20.** Give **FOUR** causes of blossom end rot in tomatoes **(4 marks)**

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**21.** The diagrams are illustrations of a livestock parasite. Study and answer the question that follow.

M N



**a)** Identify the parasites labeled as M and N above.  **(1 mark)**

**b)** State **two** harmful effects of M parasite  **(2 marks)**

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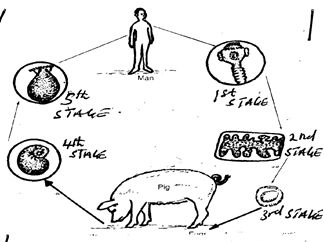
**c)** Name a class chemical used to control the parasite M  **(1 mark)**

………………………………………………………………………………………………………………… **d)** Name a disease transmitted by the parasite N;  **(1 mark)**

To Man………………………………………………..

To Livestock………………………………………..

**22.** The illustration below shows a life cycle of an internal parasite. Study it anser the questions that follow.



**a) i)** Identify the parasite above. 1 mark

……………………………………………………………

**ii)** How is the parasite passed from livestock to man. **(1 mark)**

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1. Give **two** forms in which the parasite is found in livestock. **(1 mark)**

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**23.** Give **four** reasons why water is important to animals **( 4 marks)**

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**24.** State **four** sources of carbohydrates for livestock  **(4 marks)**

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**25. a)** Name the following Nutrients **; (2 marks)**

**i)** A vitamin whose deficiency leads to redarded growth ,poor eye sight, and reduced resistance to

diseases………………………………………………….

**ii)** A vitamin which is found in whole grains and can be synthesized by micro-organisms in the

rumen………………………………………………………………………………….

**iii)** Mineral which is required for reproduction in livestock………………………………..

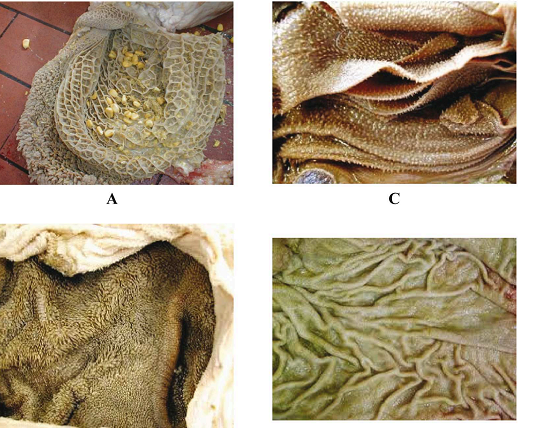
**iv)** A mineral required by piglet immediately after birth to control piglet anaemia…………………

**26.**  State **four** factors affecting digestibility **(4 marks)**

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

**27.** A farmer is required to prepare 100 kg of ration of 30% digestible crude protein ( DCP) from simsim seed cake containing 50% DCP and maize meal 10% DCP. Using Pearson’s square method calculate the amount of simsimand maize the farmer requires.(4marks )

**28.** The photographs below illustrate the parts of a ruminant stomach. Study them and answer the questions that follow.



**i.** Identify parts A and C **(1 mark)**

A ……………………

C…………………….

**ii.** Give the functions of the part labeled as B and D **(2 marks)**

B……………………………………………

D…………………………………………..

**29. a)** Explain **three** field practices in carrot production. **(6 marks)**

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1. Describe harvesting in onions. **(4 marks)**

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