527/1

Principles and Practices of Agriculture

Paper 1

July 2015

2Hours



UGANDA MUSLIM TEACHERS’ ASSOCIATION

UMTA JOINT MOCK EXAMINATIONS 2015

UGANDA CERTIFICATE OF EDUCATION

NAME……………………………………………………………........

INDEX NO……………………SIGNATURE………………………

Theory paper

**2 hours 30 minutes**

**Instructions**

* *Answer all the questions in this part.*
* *Question 1 circle the correct alternative.*
* *For questions 2-4, write all answers in the spaces provided.*

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| --- | --- |
| **FOR EXAMINER’S USE ONLY** | |
| **Part** | **Marks** |
| PART A |  |
| PART B |  |
| TOTAL |  |

**PART A (20 MARKS)**

**Answer all questions in this part. For question 1 write the letter corresponding to the correct alternative in the box provided. For questions 2 to 5, write all answers in the spaces provided**.

1. In the electrical system of a tractor, the battery is charged by
2. starter motar.
3. ignition coils.
4. alternator.
5. diode.
6. The following are advantages of using grafting method in propagation of crops. Which one is not?
7. It makes it possible to produce more than one variety of fruit on the same tree.
8. Helps to propagate plants that cannot be propagated by other means.
9. It can be used to repair damaged trees.
10. It can be used to propagate plants which can only be propagated by seeds.
11. Where does enzymatic digestion take place in ruminants?
12. Omasum.
13. Rumen.
14. Teticulum.
15. Abomasums.
16. Which one of the following best explains why terraces on steep slopes are separated by grass banks from each other?
17. Because grass is fed to animals as pasture.
18. Because grass helps to control soil erosion.
19. Because grass improves soil structure and fertility.
20. Because grass parts of the crop used in rotation.
21. Give the factors you consider when purchasing a machine.
22. ……………………………………………………………………………………..
23. …………………………………………………………………………………….
24. …………………………………………………………………………………….
25. ……………………………………………………………………………………..
26. …………………………………………………………………………………….
27. …………………………………………………………………… (4 marks)

(b) Give reasons why diesel engines are popular than petrol engines.

1. ……………………………………………………………………………………..
2. …………………………………………………………………………………….
3. …………………………………………………………………………………….
4. ……………………………………………………………………………………..
5. …………………………………………………………………………………….
6. ………………………………………………………………………… (4 marks)
7. State the precautions that should be taken during transplanting.
8. ……………………………………………………………………………………..
9. …………………………………………………………………………………….
10. …………………………………………………………………………………….
11. ……………………………………………………………………………………..
12. …………………………………………………………………………(4 marks)

(b) State the advantages of row planting.

1. ……………………………………………………………………………………..
2. …………………………………………………………………………………….
3. …………………………………………………………………………………….
4. ……………………………………………………………………………………..
5. ……………………………………………………………………… (4 marks)
6. State four factors that influence the quality of hay.
7. ……………………………………………………………………………………..
8. …………………………………………………………………………………….
9. …………………………………………………………………………………….
10. ………………………………………………………………………… (2 marks)
11. In what ways can a farmer adjust the PH of the soils?
12. ……………………………………………………………………………………..
13. …………………………………………………………………………………….
14. …………………………………………………………………………………….
15. ……………………………………………………………………………………..

(2 marks)

**PART B (80 MARKS)**

**Answer four questions in this section taking at least one from each section. Write your answer in the booklets provided.**

**SECTION I: MECHANISATION AND FARM MANAGEMNET**

1. (a) Explain the role of agriculture in the economic development of Uganda. (8 marks)

(b) Give reasons why agriculture is not developed in some parts of Uganda. (12 marks)

7. (a) With the aid of a well labeled diagram, describe how a water cooling systems of a tractor engine works. (14 marks)

b) What routine maintenance practices should be carried out on the cooling system described above? (6 marks)

8. (a) Explain the factors that determine the type of machinery to buy for farm use. (10marks)

(b) Explain how you would maintain farm tools and equipment in good working

conditions. (10 marks)

**SECTION II: CROP PRODUCTION**

1. (a) State the field practices carried out in the growing of maize. (8 marks)

(b) Why is maize growing popular? (8 marks)

(c) Outline the common field pests of maize. (4 marks)

10. (a) Describe how to make compost manure using a pit method. (12 marks)

(b) Outline the factors that may affect the quality of farm yard manure (5 marks)

(c) State two uses of farm yard manure in the soil. (3 marks)

11. (a) Explain the importance of tilling land. (15 marks)

(b) What are the five advantages of using disc plough over a mould board plough in tilling land? (5 marks)

**SECTION III: ANIMAL PRODUCTION**

1. (a) Give four differences between roughages and concentrates. (4 marks)

(b) A farmer has a maize meal containing 8% protein and soya bean meal containing 43% protein. Using an appropriate method; calculate the proportion in which he will mix the two ingredients to make a ration of 15% protein. (10 marks)

(c) Describe the ways in which a farmer should take care of sick animals on the farm.

(6marks)

1. (a) Give reasons for the popularity of a deep litter system among Uganda commercial

poultry farmers. (8 marks)

(b) Describe the management practices carried out in a deep litter house to ensure high

egg production. (12 marks)

1. (a) Explain why each of the following management practices are carried out;
2. Balanced ration feeding. (4 marks)
3. Steaming up. (4 marks)
4. Flashing. (3 marks)
5. Debeaking. (4 marks)

(b) Describe how the rubber ring method of castration is done. (5 marks)

**END**