

527/1  
AGRICULTURE  
Paper 1  
Aug/Sept2024  
2½ hours



**MATIGO EXAMINATIONS BOARD**

Uganda Certificate of Education

AGRICULTURE

**Paper 1**  
Theory

2 hours 30 minutes

**INSTRUCTIONS TO CANDIDATES:**

*This paper consists of **six** examination items. It has **two** sections; **A** and **B**.*

*Section **A** has **two** compulsory items.*

*Section **B** has **two** parts; **I** and **II**. Answer **one** item from each part.*

*Answer **four** examination items in all.*

*Any additional item(s) answered will **not** be scored.*

***All** answers **must** be written in the Answer booklet(s) provided.*

**Turn Over**

## SECTION A

### SOIL SCIENCE AND VALUE ADDITION

*Answer all items in this section.*

1. After finding out that Kamuli district has over six groundnuts processors, also Kakooza purchased a machine for processing groundnuts at the start of the year 2024. He uses a lorry to transport his 20 bags of groundnuts from the suppliers to his business premises. This lorry has a capacity of carrying to 120 bags at the same cost and it's the only means of transport available. His processed groundnuts were observed to be a mixture of half broken and well grinded ones. Three days after the grinding, groundnuts in his shop were observed to contain a whitish layer on the surface with an unusual smell. In one of the hotels where Kakooza supplies grinded groundnuts, a customer chewed a stone as she was consuming the groundnuts paste. Recently Kakooza learnt of an opportunity to export his groundnuts to Saudi Arabia. He has a capacity of supplying 2000kg yet the total demand is 20,000kg. This is likely to disqualify him from this opportunity. Farmers in villages usually supply him groundnuts on credit and he pays them after making sales. On paying them, he physically delivers their money by driving a distance of about 230km a journey that consumes fuel worth 320,000. This has severely affected his net profits in the end.

Task;

Write guidelines to Kakooza that would help him improve his business.

2. Halima a cereal grower in Kamonkoli district owns 100 acres of gently sloping land with only 50 presently in production as the other half of the land was abandoned. This was due to it's low productivity, light greyish colour, a soil p.H of 3 and very compact as heavy lorries were using it as a short cut. Meanwhile, the 25 hectares under production are characterised with rocky soils and trees whose root system is exposed on the surface. Most of the fertile and dark soils are seen in the valley next to her land. At the start of the business in 2016, the soils particles on which banana grows were intact and presently comprise of very loose particles.

Task;

As the district agricultural extension officer, write an advisory message to Halima that would enable her improve her cereal growing business.

## SECTION B

*This section has **two** parts; I and II*

### PART I: ANIMAL PRODUCTION

*Answer **one** item from this part.*

3. Mr. Mukasa received two healthy dairy heifers through the government “*parish development model*” programme. He divided his small grass thatched house into two to create space where the heifers would be housed. The district animal nutritionist advised him to feed them on a ration of 12% crude proteins for the first month upon arrival. He obtained maize bran of 16% crude proteins and soya bean meal of 44% crude proteins. He plans to mix 600 kg of the feed for a month though he is stuck on the amount of each ingredient to use in order to mix the required feed ration. Authorities in this region put a ban on the use of agro-chemicals for parasite control as many were a danger to livestock. In the past he has always wanted to feed his calves on milk placed in a bucket for some good reasons but none of the calves has ever attempted to drink it. He always presents fresh milk before the calves in the morning and finds it in the afternoon still in the buckets. One of his dairy heifers was found to have a temperature of 41<sup>0</sup>c and this was suspected to be heat signs by the farmer. He eventually inseminated the heifer but two days later it died.

#### **Task;**

As an agricultural journalist, write an article that a local newspaper would publish to help Mr. Mukasa.

4. In the suburbs of Bukoto, Ntinda and Najera are numerous obese rich people who prefer goat meat to any other types of meat available. The other meats on market in these communities are only beef and mutton. This was according to the survey that was conducted by the Young Future Farmers of Africa (YoFFA). As you walk around common vegetable markets in these areas, are discarded cabbage remains whereas along fence boundaries and abandoned sites fully occupied with sweet potato vines and black jack among other common weed plants. These communities have some rabbit farmers whom the population is questioning whether rabbits should be consumed. Rabbit farmers have resorted to eating them to reduce their numbers since they had become exceedingly high and feeding them on concentrates that had become extremely expensive. Upon visiting one of the rabbit farmers, it was observed that the door wire mesh was of his rabbit cages was torn and green watery faeces oozing out of the base wire mesh. Besides, there was a stinky smell all over the homesteads and some rabbits had rough hair coat coupled

with black-like living organisms and numerous small wounds around the ears. This was further proven as some of these rabbits were lifted while tightly holding their ears and presented to YoFFA members for close observation. Some farmers also raised concerns of some rabbits that are properly fed following the recommended standards but in end weigh less than expected. Furthermore, they reach breeding stage slightly late compared to their counterparts with about 2 -3 bunnies per birth.

**Task;**

Design a sensitization message to the this community of rabbit farmers.

**PART II: CROP PRODCUTION**

*Answer one item from this part.*

5. The establishment of Soroti fruit processing factory has attracted many farmers in this region and the neighborhood into fruit crop production. Some of the farmer groups that specializes in grafted mango production harvested two tonnes of big nice looking mango fruits which upon cutting, many had a very an unpleasant smell and some maggots within. One of the plantations that was established on 10 hectares and it appears that all the mongo seedlings planted were able to grow; some seedlings' roots were observed exposed on the soil surface with no signs of soil erosion whereas for the already mature trees were numerous flowers that had poured on the ground. The mango plantation had a dense canopy with a powdery dusty substance on the leaves and flowers. Farmers decry accidents which result from falling down as they climb to harvest the mature fruits. The height of their trees ranges between 12 to 15 meters tall.

All the activities carried out during mango fruits production are well written using a piece of charcoal on the walls of a grass thatched fruits' stores that are detached from the pit latrine. For some other activities, they are able recall what transpired during production.

**Task;**

Write a formal letter that would be of help to mango farmers of Soroti district.

6. Most vegetables are eaten as salads to accompany meals in hotels and restaurants. A newly formed women farmer group in Kampala intends to grow spinach garden in their community. They have tried to search for information regarding establishment of a suitable nursery bed but their efforts haven't yielded much. They have been awarded a contract by vegetable exporters from Europe on

condition that their vegetable harvests are grown without being sprayed with any synthetic chemicals. This altogether seemed a new and strange way of raising crops. They have also been given an offer by a wealthy business man in support of their enterprise; he has invited them to his **agro-input shop** to select specific tools and equipment that could be of help during the growing of kale. The tools from which they'll select from include; knapsack sprayer, burdizzo, hand saw, hoes, axe, garden fork, rake, spade, rubber ring elastrator, watering can, ropes, hand trowel, planting line, tape measure and a hoof trimmer. They thought that all these tools and equipment would be of use in their vegetable growing enterprise and therefore wanted each of them.

**Task.**

Write an essay that **Daily Monitor** would publish addressing the challenges faced by the women farmer group.

END  
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