

Candidates' Name:

Signature:

Random No.					Personal No.		

(Do not write your school / Center name or Number anywhere on this booklet)

527/1

AGRICULTURE

Paper 1

July / Aug 2024

2 ½ HOURS



KAMTEC EXAMINATIONS BOARD

Uganda Certificate of Education

AGRICULTURE

Paper 1

TIME: 2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES

- This paper consists of six examination items in all. 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.
- Respond to four examination items in all. Any additional item(s) answered will not be scored. All responses must be written in the Answer booklet(s) provided.

FOR EXAMINER'S USE ONLY			
SECTION	ITEM	SCORE(S)	EXAMINER'S SIGNATURE
A	1		
	2		
B	3		
	4		
	5		
	6		
TOTAL			

SECTION A

*Answer **all** the items in this section.*

Item 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.

Item 2

Banana is one of the major food crops in the central region of Uganda. Farmers under the umbrella of Masaka Banana Growers Association (MABAGA) seek to invite the district agricultural extension officer upon registering a decline in their yields since the year 2021. These are farmers who own 40 hectares of gently sloping land although only 20 are presently in production as the other half of the land was abandoned due to its reddish colour and a soil pH of 2. Meanwhile, the 20 hectares under production are yielding very small bunches with the land surface characterised with numerous lines of depressions cutting across from different ends. At the start of the business in 2016, the

association had a vision of doubling their average production in order to penetrate into the European market by 2025.

Task

As the district agricultural extension officer, write an advisory message to Masaka Banana Growers Association (MABAGA).

SECTION B

This section has two parts; I and II

PART I: ANIMAL PRODUCTION

Respond to only one item from this part.

Item 3

Livestock is among the fastest growing industries in Uganda. Mr. Mukasa received two healthy dairy heifers through the government “Emyooga” 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 22% crude proteins for the first three months upon arrival. He obtained maize bran of 16% crude proteins and soya bean meal of 48% crude proteins. He plans to mix 1000 kg of the 3 feed every after three weeks though he is finding it difficult to decide on the amount of each ingredient to use in order to mix the required feed. He realised that foot and mouth disease had affected the herds of some farmers within the community and also his goats had numerous ticks on their bodies. These together with other animals are grazed on free range system in the community. He thought of pausing the business due to fears. Authorities in this region put a ban on the use of Agro-chemicals for parasite control as many were a danger to livestock.

A local veterinary officer through a phone call advised him to always castrate every bull calf that will be born to the heifers in the near future. Before completion, his phone went off and this left Mr. Mukasa wondering why he should castrate his bull calves.

He needed them to grow and mate with his cows. The doctor also emphasized purchasing certain tools and equipment which included a burdizzo, milking bucket, strip cup and a milk can. These appeared to be of no significance to Mr. Mukisa.

Task

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

Item 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 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 this community of rabbit farmers, using the knowledge of Agriculture.

PART II: CROP PRODUCTION.

Respond to one item from this part.

Item 5

The establishment of Soroti fruit processing factory has attracted many farmers in this region and the neighbourhood 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 4 maggots within.

One of the plantations that was established on 10 hectares and it appears that all the mango 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 letter that would be of help to mango farmers of Soroti district.

Item 6

Upon securing a loan from Pride Micro-Finance, Henry rented a piece of land for two years where he chose to establish a tomato garden on one hectare. He selected a suitable site for the nursery bed and planted the seeds which were later seen on the soil surface. After a week, some seeds had developed into seedlings and were very close to one another as some seeds on the soil surface were still intact. During the time of transplanting, he pulled the seedlings using his fingers one at a time from the soils at around mid-day of a sunny day. Seedlings were well placed in the planting holes at a distance of 2x2 meters and after a week a few dried up and died. Tomato plants were later observed with tiny rotting stems, small bruised and rotten fruits which had holes on them. He decided to break off some branches on the plants which

were not bearing fruits at fruiting stage. Together with his wife they harvested their tomatoes when the garden was almost fully ripe with some tomatoes that had started rotting in the field. In order to ease transportation of the tomato fruits to the store, he transported them in a wheel barrow that had just collected manure from the cattle kraal. After a year in tomato growing, he changed to pine tree growing as he aimed at harvesting poles that would be used for rural electrification. When the poles were 13 months only, Henry was served a notification of vacating the piece land of land where he had established his pine trees.

The land lord had already rented the piece of land to another person who incidentally also wanted to grow pine. Henry wants to report the matters to the courts of law.

Task

As a learner of Agriculture, guide Henry how he should carry out a successful business.