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AGRICULTURE
Paper 1
(Theory)
Oct./Nov. 2025
2½ hours



UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

AGRICULTURE

Paper 1
(Theory)

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

This examination paper consists of two Sections; A and B. It has a total of six items.

Section A has two compulsory items.

Section B has two Parts; I and II. Respond to one item from each part.

Responses must be written in the answer booklet(s) provided.

Respond to four items in all.

Any additional item(s) responded to will not be scored.

SECTION A

Soil Science and Value Addition

Respond to both items from this section.

Item 1

Moses is a dairy farmer who produces a lot of milk from his farm. He sells the milk to consumers in Kagube Trading Centre at Shs600 per litre. Most times, the milk he obtains from his farm is not all sold until the following day. He keeps this milk in Aluminium cans placed in one corner of his living room. Some of the milk coagulates and he pours it away. To sustain his business, he recently obtained a loan from a moneylender at an interest rate of 30 % per annum. However, the proceeds from the milk sales are not enough to repay the loan and the moneylender is threatening grab part of Moses' land. Moses has heard on radio that in other places, the price of milk is Shs1,000 per litre. Customers from the nearby Malupe Trading Centre have asked Moses to supply them with any one fermented milk product. Moses does not know how to make this product. He also seeks your advice on how to improve the marketing of his milk.

Task:

- (a) Advise Moses on how he can improve the marketing of the milk from his farm. *(Include reasons for your advice).*
- (b) Guide Moses on how he can make the required product to supply to customers in Malupe Trading Centre.

Item 2

Angelina acquired land from her friend on a temporary basis to grow maize. The land has an uneven surface characterised by a mixture of deep, shallow and long channels. The soil appears pale grey, is sticky and holds water on the surface. The roots of the crops growing on the land are short and branched excessively. Recently when she uprooted some of the crops, she observed that their roots were decaying. The crop leaves had also turned purplish, so she applied urea fertilizer.

Angelina is worried about the status of her crops and has approached you for possible remedies.

Task:

Suggest to Angelina the remedies she can take to address her worries.
(Your suggestions should include reasons.)

SECTION B

Part I: Animal Production

Respond to only one item from this part.

Item 3

Joseph rears five Friesian cows under the zero grazing system. He also keeps a bull for breeding. He planted elephant grass and Greenleaf Desmodium to feed the animals. He has a water source located 400 metres away from the zero grazing unit. The water in the drinking troughs appears greenish in colour. After calving, the calf is allowed to suckle the mother for a day after which it is fed on whole milk using a bucket. Some of the calves pass out loose dung with a foul smell. One day, one of the cows developed a swollen stomach and was breathing with difficulty. Two others had wounds on their bodies inflicted on them by other cows. Joseph milks the cows by holding the teat at the base between the thumb and the fore finger and pulls the teats. Usually when he is milking, the cows kick the plastic milking bucket. Joseph complains that he is not getting enough from his farm.

Task:

Explain how Joseph can ensure increased productivity on his farm.

Item 4

Jena rears chickens on a small scale using the deep litter system. She obtains chicks for rearing by hatching eggs from her own hens in a small incubator. She picks eggs for incubation at random. She introduces the chicks into a rectangular brooder made of cardboard with sharp inner corners. Some chicks crowd in the corners of the brooder and others eat litter. Some of the chicks are found dead in the brooder. Jena follows the normal routine of vaccination and also treats sick chicks routinely. After brooding, the growers are transferred to the growers' house whose floor is covered with coffee husks. Open wooden feeders are used to provide feeds to the growers while water is provided using automatic drinkers. Greens to feed the birds are spread on the litter. Raking of litter is done once a month. All the eggs collected are cleaned using a wet cloth and are later kept in a box before being taken for sale. Jena sells the birds at 50 weeks of age as off-layers. She says that the business is performing below her expectations.

Research data shows that layers should be sold off at 72-80 weeks of age.

Task:

Guide Jena on how to improve the performance of her poultry business. (*Your guidance should include reasons.*)

Part II: Crop Production

Respond to only one item from this part.

Item 5

Dumba decided to establish Congo signal grass to feed his animals. He prepared a seedbed with large lumps of soil on his two hectares of land. He then obtained seeds from the open market and planted them at a rate of one kilogram per hectare. Upon germination, couch grass was also seen in the pasture land. He allowed the animals to graze on the pasture soon after establishment and grazing continued throughout the year. During this time, he removed weeds from the pasture and also applied fertilizers. The animals were drinking from one watering point. During the rainy season, Dumba uprooted the pasture plants that had flowered and used them to make silage. Dumba realised his pasture was not doing well and has approached you for technical advice on how to improve its yields.

The recommended seed rate for Congo signal grass pasture establishment is 2.5 to 10 kg per hectare.

Task:

Advise Dumba on how he can improve the yields from his pasture. (*Your advice should include reasons*).

Item 6

After learning about the high profits associated with tomato growing, Harriet decided to grow tomatoes in her avocado farm. She obtained seeds of a tall tomato variety from an agricultural shop. She made planting holes in the spaces between the avocado trees at a spacing of 30 cm × 20 cm and planted the seeds. After germination, she maintained all the branches on the tomato plants to maximise the number of fruits per plant. Some crops had their fruits lying on the soil surface. Others had leaves that were rolled along the edges and with yellow patches on the lamina. To her surprise some plants wilted even when the rains were sufficient. These were found to have swellings on the roots when she uprooted them. At harvest, she gently pulled the plants with pink fruits out of the soil. She then transported the fruits to a market 300 km away from her farm. Harriet did not get the high profits she anticipated and is wondering what she can do to maximise profits as she embarks on a second season.

Tall varieties of tomatoes should be spaced at 90 cm × 45 cm.

Task:

Explain to Harriet how she can maximise profits from her tomato enterprise in her second season.