

Names:.....**Index. No:**.....

School Exam Number.....**Signature:**.....

*Candidates should **NOT** write their Centre Name
or Centre Number anywhere on this booklet*

527/1
AGRICULTURE
(THEORY)
Paper 1
30 July 2024
2½ hours



ENTEBBE JOINT EXAMINATION BUREAU

Uganda Lower Secondary Certificate of Education

AGRICULTURE

Paper 1

THEORY

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

*This paper consists of **six** examination items*

*The paper 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*

SECTION A

SOIL SCIENCE AND VALUE ADDITION

*Answer **all** items in this Section*

Item 1

Ishimwe, a tomato farmer in Sheema hired a swampy piece of land from his friend, Uwera and mutually agreed to pay UGX 50,000 in cash as rent per season. He always kept his promise for the two consecutive years as they had agreed. In the third year, he realized that the yields were reduced because of wilting of the tomatoes. Therefore, he increased the concentration of urea that he was applying to the tomatoes. This challenged him and consequently, he decided to create numerous ditches on the land, to improve yields. Still unfortunately, this led to wilting of the tomatoes and cracking on the land without achieving his objectives. The tomato fruits were always small in size fetching low prices.

Task

Using your knowledge as a soil scientist, prepare a message on how the tomato farmer can obtain the expected yields.

Item 2

A study by an agricultural researcher established that in Moroto district, land is given to men by their clan heads upon the death of their fathers. This is done in clan meetings where respected clan members verbally decide on who will use a particular piece of land for a given period of time. This district lies at a low altitude with valleys having soils that are sticky and often moist, with a pH of 9. In this area, the land is always having stagnant water. The Ministry of Agriculture has been supplying tea growers with seedlings for planting for the past 4 years yet tea grows best in acidic soils. But the farmers are no longer interested in this enterprise because they have not realized profits from it. The few interested farmers decided to dig anthills and mix the sticky soils with anthill soils before planting the tea. They even added CAN fertilizers during secondary tillage to improve the next cropping of tea. Most farmers want to buy a machine and add value on the tea but they have little money.

Task

Prepare a presentation for these demoralized farmers.

SECTION B

PART I: ANIMAL PRODUCTION

Answer one item from this Part

Item 3

A cattle keeper in Kibubbu village rears zebu cattle for milk production. He set up an open roof calf pen for his newly-born calves. His zebu animals entirely feed on forage and hardly take water due to its inadequacy at the farm. His animals (cows) are randomly mated by the neighbour's bulls during communal grazing. These animals give him less milk below his expectations. Animals are always rubbing themselves on walls of farm buildings due to itching of their hides. Some animals cough and have got emaciated. He castrates the bulls on his farm when they are one year old using the surgical method. He milks his cows near the garden of garlic and onions.

Task

Write a message advising the cattle keeper above on how he can profitably benefit from his farm.

Item 4

With the high demand of meat (chicken) by the growing population in Mukono town, Namiiro decided to start a poultry project. She bought a good number of local chickens to rear. She put them in a poultry structure with a roof that allows sunrays to pass through it. Also it has a widely torn wire mesh around it for ventilation. The litter in the poultry house is damp and caked. Birds excessively scratch themselves and have broken feathers. She feeds them on maize bran throughout. Some of the drinkers have cracks at the bottom. The birds have running noses. She uses bitter juice from herbs to treat her sick birds; she sells her local birds for meat when they have attained 2kg in a period of 8 months.

Task

Advise Namiiro to produce quality and good quality of meat (chicken) profitably.

PART II: CROP PRODUCTION

Answer one item from this Part

Item 5

In the community of Bugongo village, most people engage in cassava production. Mr. Kiiso has got an acre of land in a wetland, which holds a lot of water. He cleared it using a blunt hoe to plant his cassava. He gets his planting materials from the nearby gardens. He spaced the plants 15cm x 30cm and some holes had not germinated plants after two weeks of planting. Some volunteer crops are also seen growing within the cassava garden. Recently, he saw his plants develop mottled leaves and short internodes and others have stunted growth. He uprooted some of the affected cassava plants and used them as mulches around other growing cassava plants. Some plants have their tubers exposed to sunshine. While harvesting, some tubers are eaten up by unknown organisms that make holes around the plants. The cassava tubers are cut into pieces unknowingly while harvesting.

Task

As an agriculture student, advise Mr. Kiiso on what to do to produce quality cassava on the farm.

Item 6

Mukasa grows tomatoes in Kasokoso village. He grows his tomatoes in the nursery bed before transplanting them to the main seedbed that has tree stumps and dead roots. In the nursery bed, he waters his seedlings every two hours during the day. He leaves his seedlings to bring the flowers and then transplants them to the main garden at midday. In the garden, he waters the seedlings once a day. Some have dried up leaving large spaces between plants. His garden has other many unclear plants growing at a fast rate immediately after raining. He harvests his tomatoes when their apocarps are very soft on touching.

Task

Advise Mr. Mukasa on how he can produce his tomatoes profitably.