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AGRICULTURE
Paper 1
(Theory)
Oct./Nov. 2024
2½ hours



UGANDA NATIONAL EXAMINATIONS BOARD

Uganda Certificate of Education

AGRICULTURE

Paper 1
(Theory)

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES:

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

Section A has two compulsory items.

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

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

Answer four items in all.

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

SECTION A
SOIL SCIENCE AND VALUE ADDITION

Answer both items from this section in the answer booklet(s) provided.

Item 1

Hafsa deals in fresh fish at a landing site on Lake Victoria. She carries the fish in an open container and this attracts flies.

By evening time, the fish becomes soft and changes colour to dark green. Due to the condition of her fish, customers buy from her at very low prices. She often quarrels with customers out of anger.

Most times she sells to the customers the fish when it is unwrapped. The unsold fish is usually thrown away. She now intends to buy a bicycle to ease the transportation of fish but her money is not enough.

She believes that with quick means of transport, she could make more profit.

Task:

Advise Hafsa on how she can solve her challenges so as to get more profit from her business.

Item 2

Okabala acquired a piece of land to grow soyabeans. The soil on the acquired land had a pH of 8.0 and was sticky and plastic when wet. There was a lot of undecomposed plant residue on the soil surface. The seeds he planted were of good quality, however, the soyabean crops established were stunted in growth and showed *chlorosis* between leaf veins. These resulted in poor harvest.

Okabala intends to grow the same crop in the following planting season.

Task:

Advise Okabala on how to manage his land and to solve the challenges he faced so that he can improve on the soyabean production.

SECTION B

PART I: ANIMAL PRODUCTION

Answer only one item from this part. Answers should be written in the answer booklet(s) provided.

Item 3

Chelangat bought a number of rabbits of the local breed to rear for meat. The hutch (rabbit house) which was placed on the ground had a rough floor and was covered with wood on the sides. Some rabbits were frequently seen scratching their ears, shivering and shaking their heads. Others had droppings covering their hind quarters. To the shivering rabbits, Chelangat orally administered an herbal extract, however, the rabbits still continued to shiver.

Some rotten remains of feeds are always in the hutch and some usually clogged the feeders. She uses a knife to cut off the overgrown nails of the rabbits. Usually her rabbits are sold off for meat when they are 3 months old.

Available information shows that rabbits require a lot of fresh air and mature at 6 months.

Task:

Guide Chelangat on how to manage rabbits better for increased production of quality meat.

Item 4

After receiving money from the Parish Development Model programme of the government of Uganda, a farmer in Katunguru village bought two zebu cows for milk production. She keeps the cows on a piece of land she owns near a wetland that borders a game park. She feeds them mostly on hay and grazes them in the wetland. Cows from a nearby farm also graze in the same wetland. The animals drink water from a pond surrounded by bushes.

She milks the cows and collects the milk in a plastic bucket. Customers usually complain about her milk going bad shortly after buying it.

Task:

Advise the farmer on how to improve milk production on her piece of land and to satisfy her customers.

PART II: CROP PRODUCTION

Answer only one item from this part. Answers should be written in the answer booklet(s) provided.

Item 5

Mwanje, a resident in one of the districts in Uganda decided to establish a tea plantation on his 80 hectares of land. He employed manual labour to prepare the seed bed, establish a nursery bed, transplant and manage the crops. The tea seedlings were transplanted when they were 10 cm high. Two seedlings were planted per hole at a spacing of 0.6 m by 0.45 m.

Wood ash was applied to the crop against black tea thrips (pests). The tea plants were allowed to grow to a height of 1.5 m before harvesting began. Harvesting was done by plucking one leaf and a bud in the evening.

According to the District Agricultural Officer, tea plants are kept just about a waist height of an average adult human. They pick two young leaves and a bud for processing. The plants should be spaced at 1.05 m by 0.75 m.

Task:

Guide Mwanje on how to improve his tea production from his garden.

Item 6

A farmers' organisation in one district acquired 20 hectares of land for sweet potato growing. The land is very dry most times of the year. There is a sweet potato processing plant within the district.

The farmers cultivated the land, the seedbed was rough with a lot of trash. The farmers made ridges and planted the orange flesh potato variety. The spacing used was 55 cm between ridges and 20 cm between plants.

Removal of spear grass was done by slashing. Harvesting was done by firmly holding the potato stems and then pulling out the tubers from the soil. A few tubers were obtained; some were bruised (had scratches) while others had tunnels in them.

According to NAADS, the recommended spacing of potato plants is 30 cm apart in a row and the rows are about 90 cm.

Task:

Write the information you would give the farmers' organisation to sensitise the members on how to solve their challenges to improve on sweet potato growing.