**527/1**

**AGRICULTURE**

**PAPER 1**

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**2HRS**

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**UGANDA CERTIFICATE OF EDUCATION**

**S.3**

**INSTRUCTIONS**

* This paper consists of 5 examination items. It has two sections A and B.
* Section A has one compulsory item.
* Section B has two parts 1 and 11. Answer one item from each part.

**SECTION A**

**SOIL SCIENCE**

*This section is compulsory*

***ITEM 1***

Upon observing several earth worms in a cultivated piece of land prior to planting seedling, Nantongo Joyce sprayed them with Dudu pesticides. By evening they were all dead. Two days later, she went on to plant her straw berries. She ensured to adequately irrigate her crops by evening; the soils were completely dry as if not watered even on days when temperatures were average. After planting, she collected soil samples from two spots on 5 hectares of land for laboratory testing and analysis which were rejected by soil testing experts when the soil scientists from NARO carried out soil sampling and testing by themselves, it was established that her soil had a PH of 12.5. Straw berries do best in slightly acidic soils. Whenever wind heavily blows, dust and silt particles are deposited in his fish pond leading to severe death.

**Task**

As a soil scientist, write a sensitization message to Nantongo Joyce to educate her on the status of her soil and the appropriate improvement practices.

**SECTION B**

*This section has two parts 1 and 11*

**PART 1: CROP PRODUCTION**

*Answer one item from this part.*

**ITEM 2**

Uganda coffee development Authority focuses on efficient and profitable growing of coffee, several farmers were donated coffee cuttings. These were inter cropped with eucalyptus trees as the farmers aimed at getting double profits. Ahabwa dug the planting holes at a depth equivalent to the height of his index finger and planted seedlings at a distance determined by pacing with his feet. The distance was about 4 feet. The coffee plants were straight, had numerous branches both at the top and the lower parts with few and small sized coffee beans. His mature coffee beared coffee beans which were in various colors of yellow, green and red and this prompted him to harvest mixture of all the colors. Some of the coffee plants had rusty leaves and tiny black holes on the small branches. Other coffee trees had roots growing and protruded out of the soil and got exposed on the soil surface though soil erosion was well guarded against.

**Task**

As an agronomist, write a message to Ahabwa advising him on how to improve the quality, productivity and value of his coffee production enterprise.

**ITEM 2**

Having realized that tomatoes are highly demanded, Mr. Amos decided to grow tomatoes. He went and cultivated one acre of land to plant tomatoes. The following week he went and he started planting. He did not know the variety he was planting and its spacing. By evening some seedlings had started to wilt but he did not think of gap filling.

Those seedlings that established developed many branches and leaves. The leaves and stems started to develop dark brown patches which later appeared on fruits too. Fruits were bored loading to creation of holes on the fruits. Mr. Amos started to apply pesticides but it was too late. At harvest time, ripe fruits were picked and put in polythene bag to be delivered to the market in a week’s time. At the end of it all, the farmers made loses.

**Task**

As a student of agriculture, write a message to Mr. Amos advising him on how better he should have handled his project.

**PART 11: ANIMAL PRODUCTION**

*Answer one item from this part*

**ITEM 3**

Chelangat bought a number of rabbits of 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 a herbal extract, however rabbits still continued to shiver.

Some rotten remains of feeds are always in the hutch and some clogged the feeders. She uses a knife to cut off the over grown nails of 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 6months.

**Task**

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

**ITEM 4**

Mukiibi Peter who is a poultry farmer from Ngaro district bought 500 day old chicks from Uganda chick and put them in a poultry rearing facility. The chicks were managed under deep litter system. An agric extension officer visited his poultry farm and in his report, he indicated that the litter was old and could not absorb droppings, the roof of the poultry house was leaking, light was too much in the poultry house which led to egg eating. Birds were seen pecking toes and vents of other birds. Rats were seen eating poultry feeds and eggs. The walls of the poultry house developed crack; feeds in the trough where contaminated with litter. Some laying birds produces eggs with soft shells, eggs were collected one day from the laying nests. He did have enough capital to increase the size of the flock. Birds laid smaller number of eggs than expected. This reduced incomes and the little money he got was used for leisure.

**Task**

Basing on the report from the Agric extension officer, how can poultry farmer improve the productivity of the farm?

**END**

**“MERRY CHRIMAS AND HAPPY NEW YEAR MY BESTIES”**