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527/1 AGRICULTURE Paper 1 2024 2 hrs: 30mins



SHAPTA JOINT ASSESSMENT BOARD 2024

Uganda Certificate of Education

AGRICULTURE

Paper 1

2HOURS: 30 MINUTES

INSTRUCTIONS TO CANDIDATES:

- ➤ This paper consists of six examination items.
- ➤ 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.
- ➤ Answer four examination items in all

SECTION A

SOIL SCIENCE AND VALUE ADDITION

Item 1.

a). Mr. Mutebi has been leaving in Dubai for the last five years and has just returned back to his home village in Mpigi where he has bought a piece of land. He intends to invest his savings in crop growing but not sure which type of particular crop this land can support.

Task

Based on your knowledge of soil science, make a detailed writing describing how
you can help Mr. Mutebi to investigate the type of crop his land can support and
why you think it is important.
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b). below is a structure put up in a garden to raise seedlings.



i). of what importance is the above structure in vegetable production and outline two benefits of the part labelled X on the structure.

ii). Suggest management practices that should be carried out on the structure above

from the time seedlings emerge to the stage of transplanting.

Item 2.

In the struggle to ensure food security by the government of Uganda. Agricultural institutions including NARO have embarked on the task of providing Agrictural inputs such as tools, fertilizers and pesticides. This has been spearheaded by the continuous low production as a result of the low soil fertility, pests and diseases which affect farmer's yield. However, many farmers especially in remote areas have been forward storing fertilizers in stores used to keep harvested produce, some keep the pesticides in soda bottles, and any they don't use any protective gears when applying the fertilizers and pesticides. In addition, according to the report by the extension officer, many farmers were found using the tools to perform tasks that they were not designed for and neglecting the cleaning and repairing of the damaged ones.

TASK

In your opinion, advise these farmers on the proper use and the safety precautions
they should take when using the different inputs.
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SECTION B

This section has two parts; I and II

PART I: ANIMAL PRODUCTION

Answer one item from this part.

Item 3.

Mr. Katende is a local cattle farmer rearing mainly local breeds of cattle. However, he would love to upgrade his cattle with semen from the Bown Swiss bull found only at the National Agricultural Research Institute in Entebbe. The semen can be delivered to him along with the veterinary officer to help introduce the semen to his cows in case they are on heat. Because of his ignorance about this new breeding method and detection of heat signs, he is not sure whether he should make the phone call or not.

TASK

Advise Mr. Katende on what he should put in mind before making the phone call to the National Agricultural Research Institute in Entebbe.

Item 4.

Smallholder dairy farmers in your community graze their animals on natural grasslands. The animals are seen licking the red soil of anthills found in the grassland areas, take a lot of time to mature or reproduce and have protruding bones. Fortunately, the government has introduced to them quality livestock feeds including cotton seed cake, soybean meal, maize bran, rice bran, minerals such as salt and they are advised how they can formulate rations.

TASK

Talk to these farmers highlighting the guidelines they should consider when mixing these feeds and what would affect the utilization of the rations by their animals.

PART II: CROP PRODCUTION

Answer one item from this part.

Item 5.

In Nakaseke village, farmers were provided with potato vines, cassava cuttings and a few improved tree seedlings. However, due to their ignorance some did not bother to use them in their gardens. Up to now, these farmers still complain about the low yield, prolonged maturity rates and low quality of their crops. And others have persistently continued to use their locally produced seeds in planting and other planting materials thus continuous low production.

TASK

How would you help the farmer to identify the method of crop multiplication that they were introduced to, how they will benefit and the challenges they expect with the newly introduced technology.

Item 6.

In Uganda a wide variety of vegetables are grown. Some have been grown for a long time and many more have been introduced in the country in recent years. They provide both nutritional and financial benefits to humans. However, many farmers incur a lot of challenges in their vegetable production enterprises right

from the choice of seeds, the infertile soils used, the poor farming methods used which leads to low- and poor-quality yields realized.

TASK

