

P515/1
Principles &
Practices of
Agriculture
Paper 1
(THEORY)
July/Aug 2026
3 HRS



KAYUNGA SECONDARY SCHOOLS EXAMINATIONS COMMITTEE (KASSEC)
JOINT MOCK EXAMINATION 2026
PRINCIPLES AND PRACTICES OF AGRICULTURE

PAPER 1

THEORY

3 Hours

INSTRUCTIONS TO CANDIDATES

- This paper contains two sections **A** and **B**.
- Respond to **ALL** items in section **A**.
- Section **B** has two parts **I** and **II**.
- Respond to one item from each part.
- Responses to the items must be written in the answer booklets provided.

Turn Over

SECTION A
VALUE ADDITION AND AGRICULTURAL BIOLOGY

Item 1

Hannah is a farmer dealing in supplying beef. She transports it in an open truck and sells it to the middle men. Customers who purchase beef often complain that fatty and lean beef is mixed together and develops unpleasant smell and turns bluish soon after reaching the market. The truck which was transporting beef collided with a speeding tax and suffered heavy losses. Her sales are chance based. She developed an idea of processing beef. She made a product from minced meat which she stuffed in casings. However, the product did not meet market standards. She made less profits than expected.

Task:

- a) Explain how Hannah can improve on the sales from her beef.
- b) Guide her on how to make the product which meets market standards.

Item 2

Kaitesi is a farmer who rears cattle for milk production and poultry for egg production. She selected a male animal with small and empty scrotal sac for breeding. She routinely feeds animals on young succulent pastures. She got a deal of supplying calves with red coat colour to her customers. She crossed a homozygous red bull with a homozygous white cow and produced only roan calves. During periods of pasture scarcity, she gets raw soya beans and grinds it then mixes with maize brand and oyster shells. Birds have a tendency of laying shellless eggs. Customers complain about drug-like smell in eggs. It should be noted that animals are well managed in terms of parasite and disease control and even birds have access to balanced rations. The farmer registered less profits than what she expects.

Task:

- a) Explain the causes of low productivity levels on Kaitesi's farm.
- b) How should Kaitesi improve the productivity of her farm?

SECTION B:

PART I

Respond to one item from this part.

Item 3

Kigozi is a farmer who rears cattle for beef production. He acquired cattle from a local supplier. He used unbaked clay bricks to construct the wall of the calf pen. He also made a concrete floor which was finished off with a steel float. To increase access to drinking water, he constructed all watering points on the left side of the grazing area. Deworming drugs are administered to calves using a bottle. During dipping, all animals are dipped on the farm including calves and pregnant cattle. He routinely feeds animals on hay. Sometimes calves and heifers are confined together in the same paddock. He slaughters well fed animals and evisceration takes place three hours after slaughtering. A lot of blood is noticed in the kidney and liver. Records indicate that the yield on his farm is too low.

Task:

- a) Explain the causes of low beef yield on Kigozi's farm.
- b) Suggest with reasons how Kigozi can improve on the production of beef.

Item 4

Najjuma started a poultry enterprise to supply eggs to the market. She purchased local breeds which were raised in a deep litter house. The walls of the poultry house were raised up to the roof to guard chicken against predators. She used litter for covering the floor of the poultry house which she had used in the previous season. She bought feed troughs which could allow birds to step on them. On the day of arrival, she provided chicks with plain water. Birds would be seen scattering droppings (faeces) in one place. Some birds were observed with breathing difficulties, dropping wings and passing out greenish droppings. Birds were maintained on growers mash up to laying period. She would collect eggs once a day from laying nests into the bucket. Broken eggs were also put in the same bucket. Buyers complain that eggs of poor quality and Najjuma is disappointed with the returns from her enterprise.

Task

- a) Analyse the causes of poor performance of Najjuma's enterprise.
- b) Suggest the measures she would undertake to improve the performance of her enterprise.

PART II CROP PRODUCTION

Respond to one item from this part.

Item 5

Margaret acquired a piece of land measuring 20 hectares by grabbing it from the owners for growing beans. She prepared the seed bed manually for planting bean seeds which she had reserved from the previous harvest of hybrid bean variety. She planted 1000kg of beans towards the end of rainy season. Upon carrying out soil analysis the PH of the soil was found to be PH3, the soil would also become sticky and slippery with pools of water on the surface after it has rained. She noticed empty gaps in the garden where seeds had been planted and carried out gap filling three weeks after planting. She uprooted couch grass which had emerged in the garden. Some bean plants were observed with brown patches on the lower side of the leaves. Aphids were detected on the leaves of bean plants and were controlled by spraying using a pesticide which she mixed with water at a rate of 40mls per 20 litres of water. During harvesting, she harvested when the pods had split by slashing the crops. Research indicates the recommended seed rate for beans is 60kg per hectare, soil PH requirement is 8 and the mixing rate of pesticide is 3mls of pesticide per litre of water. Her friend who planted the same variety of beans on the same size of land harvested the quantity of produce which was twice more than hers.

Task

- a) Examine the causes of low yield from Margaret's farm.
- b) What measures can Margaret take to address the challenges and increase yield on her farm?

Item 6

Mr. Akanyo is a banana grower in Western Uganda. He obtained suckers from the neighbour's garden and established a plantation on a piece of land he had hired to use for a period of two years. He spaced bananas at 3m x 3m and he planted 600 suckers per acre of land. He mixed the top soil and fresh manure in the planting holes then planted suckers with their roots intact, shallow and deep channels were created by rain water in the plantation, black jack and gallant soldier were detected in the plantation and eliminated them by setting fire on them. The soil in the plantation was reddish brown most of the time. Plants with big bunches were seen bending, those whose corns had tunnels started falling down. He maintained five suckers per stool in an attempt to have a high plant population. He usually harvests cooking variety of bananas when fruits have started ripening using a panga which had previously cut a plant suspected to have bacterial wilt. Research indicates

that 4047 square metres are equivalent to one acre of land. He harvested smaller bunches from the plantation.

Task

- a) Explain the causes of low banana yield from Mr. Akanyo's plantation.
- b) How can he ensure high productivity from the banana enterprise?

END