THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

034/2 **AGRICULTURE 2**

Time : 2:15 Hours **ANSWERS** **Year : 2005**

Instructions

1. This paper consists three questions.
2. Answer **two** questions.
3. Communication devices and any unauthorised materials are **not** allowed in the examination room.
4. Write your **Examination Number** on every page of your answer booklet(s).

1. You are provided with specimens A, B, C, D, E, F and G. Observe each of the specimens carefully and then answer the following questions:

(a) (i) Name specimens A, B, C, D and E.
Specimen A is a maize stalk borer.
Specimen B is a maize weevil.
Specimen C is a red flour beetle.
Specimen D is a cotton stainer.
Specimen E is an aphid.

(ii) State one (1) harmful effect of each of the specimens A, B, C, D and E on crop plants.
The maize stalk borer (A) bores into maize stems, weakening plants and reducing yield.
The maize weevil (B) attacks stored maize grains, causing weight loss and damage.
The red flour beetle (C) contaminates stored products with waste and reduces quality.
The cotton stainer (D) sucks sap from cotton bolls, staining the lint and lowering its market value.
The aphid (E) sucks sap from leaves and transmits viral diseases.

(iii) State one (1) control measure for each of the specimens A, B, C, D and E.
The maize stalk borer can be controlled by crop rotation.
The maize weevil can be controlled by storing grains in airtight containers.
The red flour beetle can be controlled by fumigating stores.
The cotton stainer can be controlled by timely harvesting and field sanitation.
The aphid can be controlled by spraying insecticides or introducing natural predators like ladybird beetles.

(b) (i) Name specimens F and G.
Specimen F is a fertilizer sample.
Specimen G is a pesticide container.

(ii) Explain the usefulness of specimens F and G to farmers.
Fertilizer (F) is useful for supplying essential nutrients to crops, thereby increasing growth and yield.
The pesticide container (G) is useful for storing and applying chemicals that control pests and diseases, ensuring healthy crop production.

2. You are provided with specimens H, I, J, K and L. Observe each of the specimens carefully and then answer the following questions:

(a) (i) Name specimens H, I, J and K.

Specimen H is a watering can.

Specimen I is a knapsack sprayer.

Specimen J is a hoe.

Specimen K is a rake.

(ii) Explain briefly the use of each of specimens H, I, J and K.

The watering can (H) is used for irrigating seedlings and small plots.

The knapsack sprayer (I) is used for applying pesticides, fungicides, and foliar fertilizers.

The hoe (J) is used for weeding, tilling, and making planting holes.

The rake (K) is used for levelling soil and collecting debris.

(b) (i) Identify specimen L.

Specimen L is a tick.

(ii) State the harmful effects of specimen L.

Ticks suck blood from animals, leading to anemia.

They transmit tick-borne diseases such as East Coast fever.

They cause wounds that reduce the quality of animal hides.

3. You are provided with specimens M, N, O, P, Q, R, S and T. Observe each of the specimens carefully and then answer the following questions:

(a) (i) Identify specimens M, N, O, P and Q.

Specimen M is compost manure.

Specimen N is farmyard manure.

Specimen O is green manure.

Specimen P is nitrogen fertilizer.

Specimen Q is phosphate fertilizer.

(ii) Explain briefly the use of each of specimens M, N, O, P and Q.

Compost manure (M) improves soil fertility and structure.

Farmyard manure (N) increases soil organic matter and nutrient availability.

Green manure (O) fixes nitrogen and adds organic matter to soil.

Nitrogen fertilizer (P) promotes vegetative growth.

Phosphate fertilizer (Q) encourages root development and flowering.

(b) (i) Name specimens R, S and T.

Specimen R is potash fertilizer.

Specimen S is a spanner.

Specimen T is a plough.

(ii) Explain briefly the use of each of specimens R, S and T.

Potash fertilizer (R) improves fruit quality and disease resistance in crops.

The spanner (S) is used for tightening or loosening nuts and bolts.

The plough (T) is used for tilling and turning the soil before planting.