# THE UNITED REPUBLIC OF TANZANIA NATIONAL EXAMINATIONS COUNCIL ADVANCED CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

### 134/2 AGRICULTURE 2

(For Both School and Private Candidates)

Time: 3 Hours ANSWERS Year: 2004

#### **Instructions**

- 1. This paper consists of sections three (3) questions.
- 2. Answer two (2) questions.
- 3. Question one (1) carries **twenty (20)** marks and questions **two (2)** and **three (3)** carries **fifteen (15)** marks each.
- 4. Non-programable calculators may be used.
- 5. Cellular phones are **not** allowed in the examination room.
- 6. Write your **Examination Number** on every page of your answer booklet(s).



# 1. You are provided with specimens: AI1, AI2, AI3, and AI4.

(a) (i) Identify specimen AI1 and give two uses

All is Urea fertilizer. It supplies nitrogen to enhance leafy growth and increases overall crop yields.

(ii) State three symptoms of deficiency associated with AI2

AI2 supplies potassium. Deficiency causes marginal leaf chlorosis, weak stems prone to lodging, and poor flowering or fruiting.

(iii) Mention two methods of applying specimen AI3

AI3 is farmyard manure. It can be broadcast over the field or incorporated into the soil by plowing before planting.

(b) (i) Identify specimen AI4

AI4 is soybean meal.

(ii) State its role in animal feed formulation

It provides high-quality protein, supplying essential amino acids for growth, milk, and egg production.

(iii) Give two disadvantages of overusing specimen AI4

May cause digestive disorders and lead to nutrient imbalance if used excessively without balancing other feed components.

## 2. You are provided with specimens: AJ1, AJ2, and AJ3.

(a) (i) Identify specimen AJ1 by botanical name

AJ1 is cassava (Manihot esculenta).

(ii) Mention a disease affecting AJ1 and its vector

Cassava mosaic disease, transmitted by whiteflies (Bemisia tabaci).

(iii) List two control methods of the disease in AJ1

Use resistant varieties and remove infected plants to reduce spread.

(b) (i) Identify specimen AJ2

AJ2 is cowpea (Vigna unguiculata).

(ii) State three features that make AJ2 important in soil enrichment

Nitrogen fixation, organic matter addition when residues decompose, and improvement of soil structure through root development.

(iii) Mention one limitation of specimen AJ2

Vulnerable to aphid and pod borer infestations.

(c) (i) Identify specimen AJ3

AJ3 is maize bran.

(ii) State two advantages of using AJ3 in dairy farming

Provides energy and fiber for ruminants, supporting growth and milk production.

#### 3. You are provided with specimens: AK1, AK2, AK3, and AK4.

(a) (i) Identify each specimen AK1-AK4

AK1 is Napier grass, AK2 is Rhodes grass, AK3 is pesticide (e.g., Malathion), and AK4 is tsetse fly.

(ii) Mention two uses of AK1

Livestock fodder and erosion control.

(iii) Outline three safety precautions when handling AK3

Wear gloves and protective clothing, avoid inhalation or skin contact, and wash hands thoroughly after handling.

(b) (i) State two farm animals attacked by AK4

Cattle and goats.

(ii) Suggest two control measures for AK4

Use insecticide sprays and tsetse traps to reduce fly population.