

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

**034/2**

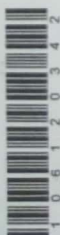
**AGRICULTURAL SCIENCE 2  
(PRACTICAL)  
(For School Candidates Only)**

**Time: 2:15 Hours**

**Monday, October 22<sup>nd</sup> 2012 a.m.**

**Instructions**

1. This paper consists of **three (3)** questions.
2. Answer **two (2)** questions.
3. Each question carries 25 marks.
4. Cellular phones and calculators are **not** allowed in the examination room.
5. Write your **Examination Number** on every page of your answer booklet(s).



1. You are provided with specimens A<sub>1</sub>, A<sub>2</sub>, A<sub>3</sub>, A<sub>4</sub>, A<sub>5</sub>, A<sub>6</sub> and A<sub>7</sub>. Observe each of the specimens carefully and answer the questions that follow:
- (a)
    - (i) Name two possible products of specimen A<sub>1</sub> when processed and give one use of each product. **(2 marks)**
    - (ii) Name the primary store pest for specimen A<sub>1</sub> and briefly explain the adaptation of the pest. **(2 marks)**
  - (b)
    - (i) Comment on the resistance of specimen A<sub>2</sub> to storage insect attack and give reason for your answer. **(1 mark)**
    - (ii) Groundnut rosette virus is a serious disease affecting plants of specimen A<sub>2</sub>. Explain briefly two effects and two control measures of the disease. **(4 marks)**
    - (iii) Write down the scientific name of plant that produces specimen A<sub>3</sub>. **(1 mark)**
    - (iv) Explain briefly how pests attacking the plant in (b) (iii) above can be controlled. **(2 marks)**
  - (c) Refer to specimens A<sub>4</sub> and A<sub>5</sub>.
    - (i) Name two major pests of the plant from where the specimen A<sub>4</sub> was taken. **(1 mark)**
    - (ii) How would you control the pests named in (c) (i) above? **(3 marks)**
    - (iii) What is the use of specimen A<sub>4</sub>? **(1 mark)**
    - (iv) Name the main pest attacking seeds of specimen A<sub>5</sub> when stored and state one control measure which farmers should undertake to control it. **(2 marks)**
  - (d) Briefly explain how you would establish plants of specimen A<sub>6</sub> in the field. **(3 marks)**
  - (e)
    - (i) Identify specimen A<sub>7</sub> by its common name and account for the origin of its name. **(2 marks)**
    - (ii) Briefly explain how is specimen A<sub>7</sub> able to compete with the crop plants. **(1 mark)**

2. You are provided with specimens B<sub>1</sub>, B<sub>2</sub>, B<sub>3</sub>, B<sub>4</sub> and B<sub>5</sub>. Observe them carefully and answer the questions that follow:
- (a) (i) Name specimens B<sub>2</sub> and B<sub>3</sub>. (2 marks)
- (ii) Briefly explain the use of each of the specimens B<sub>1</sub>, B<sub>2</sub> and B<sub>4</sub>. (3 marks)
- (iii) State two advantages of the practice done using specimen B<sub>1</sub> in animal husbandry. (2 marks)
- (iv) Outline six symptoms of the condition tested by using specimen B<sub>3</sub>. (3 marks)
- (v) Describe briefly the mechanism of functioning of specimen B<sub>4</sub>. (2 marks)
- (b) (i) Identify specimen B<sub>5</sub>. (1 mark)
- (ii) State three harmful effects of specimen B<sub>5</sub> to farm animals. (3 marks)
- (iii) You have been appointed as a Ranch Manager at Dakawa Ranch which is heavily infested with specimen B<sub>5</sub>. Explain briefly four measures which you will take to control the specimen in the Ranch. (4 marks)
- (iv) Briefly explain the disease that is transmitted to farm animals by specimen B<sub>5</sub> using the following guidelines:
- Name of the disease.
  - Causative agent.
  - Two groups of animals affected.
  - Four symptoms.
- (5 marks)
3. You are provided with specimens C<sub>1</sub>, C<sub>2</sub>, C<sub>3</sub>, C<sub>4</sub>, C<sub>5</sub>, C<sub>6</sub>, C<sub>7</sub> and C<sub>8</sub>. Observe each of the specimens and answer the questions that follow.
- (a) (i) Identify each of specimens C<sub>1</sub>, C<sub>2</sub>, C<sub>3</sub>, C<sub>4</sub> and C<sub>5</sub>. (5 marks)
- (ii) Explain briefly the use of each of the specimens C<sub>1</sub>, C<sub>2</sub>, C<sub>3</sub>, C<sub>4</sub> and C<sub>5</sub>. (5 marks)
- (b) (i) Differentiate between groups of materials represented by specimens C<sub>6</sub> and C<sub>7</sub>. (2 marks)



- (ii) Enumerate four properties of specimen C<sub>7</sub>. (2 marks)
- (iii) State four roles of specimen C<sub>6</sub> in the soil? (2 marks)
- (iv) Explain briefly why specimen C<sub>6</sub> needs to be applied at a high rate. (1 mark)
- (v) Suggest the best time and the reason for applying specimen C<sub>8</sub> in the field of maize. (2 marks)
- (vi) Explain why specimen C<sub>7</sub> should be applied in small amounts and at a considerable distance away from the growing parts. (2 marks)
- (vii) Suggest the proper application method for specimen C<sub>7</sub> and briefly explain how the method is done. (2 marks)
- (viii) Explain briefly why specimen C<sub>8</sub> should be placed in a zone within easy reach of the plant roots. (2 marks)