

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

**034/2**

**AGRICULTURAL SCIENCE 2  
(PRACTICAL)  
(For Both School and Private Candidates)**

**Time: 2:15 Hours**

**Thursday, 21<sup>st</sup> November 2013 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, B, C, D and E. Observe them carefully and answer the questions that follow:

- (a) (i) Give the common names for each of the specimens A and B. (2 marks)
- (ii) Which crop does each of the specimens A and B attack? (1 mark)
- (iii) Explain in brief one important cultural method of controlling specimen A. (2 marks)
- (b) (i) Give the botanical name of specimen C. (1 mark)
- (ii) What is the family in which specimen C belongs? (1 mark)
- (iii) Briefly explain why it is not advised to splash water on to the leaves of specimen C when watering. (1 mark)
- (iv) What is the importance of cutting the growing tip of specimen C when about 4 to 6 branches of fruit have been formed? (1 mark)
- (v) Give four reasons as to why the soil in which specimen C is grown should be covered with mulch. (2 marks)
- (vi) Identify six important pests of specimen C. (3 marks)
- (vii) Browning and rotting of fruits of specimen C normally indicate the symptoms of a disease. Identify the disease and its causative agent. (1 mark)
- (c) (i) Identify specimen D. (1 mark)
- (ii) Briefly explain why organic manures are not used when growing specimen D. (2 marks)
- (iii) Name one important disease of specimen D and suggest how the disease can be controlled. (2 marks)
- (iv) Suggest the suitable climatic requirements for growing specimen D. (1 mark)
- (d) (i) Identify specimen E. (1 mark)
- (ii) Why should specimen E be stored in a heap under shelter? (1 mark)
- (iii) Briefly describe the process of formation of specimen E. (2 marks)

2. You are provided with specimens F, G, H, I, J, K and L. Observe them carefully and answer the following questions:

- (a) (i) Identify each of specimens F and G. (1 mark)
- (ii) Outline four methods for preserving a product which bring about specimen F. (2 marks)
- (iii) Account for four usefulness of a method with which specimen G is used for in farm animal management. (2 marks)
- (b) (i) Name specimen K. (0.5 mark)

- (ii) Describe the mechanism functioning of specimen K. (3 marks)
- (iii) What are the other materials used for the same purpose as specimen K? (1 mark)
- (c) (i) Identify specimens H, I and J by giving their botanical names. (3 marks)
- (ii) Examine the adaptations of specimens H, I and J in the field. (2 marks)
- (iii) What is the importance of specimens H, I and J to farm animals? (1 mark)
- (iv) Briefly explain two disadvantages of chemical control of specimens H, I and J. (2 marks)
- (d) (i) Identify specimen L by giving its common name. (0.5 mark)
- (ii) Describe the life cycle of specimen L. (3 marks)
- (iii) Give four ways of controlling specimen L. (4 marks)
3. You are provided with specimens M, N, O, P, Q and R. Observe them carefully then answer the following questions:
- (a) (i) Identify each of specimens M, N and O. (1.5 marks)
- (ii) Give five properties of each of the specimens M and N. (5 marks)
- (iii) Comment on the workability as far as cultivation is concerned for areas with high proportions of each of specimens M and N. (2 marks)
- (iv) Giving reasons, compare the fertility status in each of specimens M and N. (2 marks)
- (b) (i) Identify each of specimens P, Q and R. (1.5 marks)
- (ii) Suggest the best time for applying specimens P, Q and R. Give reasons for your answer. (3 marks)
- (iii) State the effects of specimens P, Q and R on soil acidity upon repeated application. (3 marks)
- (iv) Why too much application of specimens P, Q and R should be avoided especially on cereal crops? (2 marks)
- (v) Specimens P, Q and R should be applied in every cropping season. Briefly explain. (2 marks)
- (c) (i) Identify each of specimens S and T. (1 mark)
- (ii) State the use of each of specimen above. (2 marks)