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 22nd 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_1, A_2, A_3, A_4, A_5, A_6 and A_7. Observe each of the specimens carefully and answer the questions that follow:

(a) (i) Name two possible products of specimen A_1 when processed and give one use of each product. **(2 marks)**

(ii) Name the primary store pest for specimen A_1 and briefly explain the adaptation of the pest. **(2 marks)**

(b) (i) Comment on the resistance of specimen A_2 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_2. 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_3. **(1 mark)**

(iv) Explain briefly how pests attacking the plant in (b) (iii) above can be controlled. **(2 marks)**

(c) Refer to specimens A_4 and A_5.

(i) Name two major pests of the plant from where the specimen A_4 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_4? **(1 mark)**

(iv) Name the main pest attacking seeds of specimen A_5 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_6 in the field. **(3 marks)**

(e) (i) Identify specimen A_7 by its common name and account for the origin of its name. **(2 marks)**

(ii) Briefly explain how is specimen A_7 able to compete with the crop plants. **(1 mark)**

2. You are provided with specimens B_1, B_2, B_3, B_4 and B_5. Observe them carefully and answer the questions that follow:

(a) (i) Name specimens B_2 and B_3. **(2 marks)**

(ii) Briefly explain the use of each of the specimens B_1, B_2 and B_4. **(3 marks)**

(iii) State two advantages of the practice done using specimen B_1 in animal husbandry. **(2 marks)**

(iv) Outline six symptoms of the condition tested by using specimen B_3. **(3 marks)**

(v) Describe briefly the mechanism of functioning of specimen B_4. **(2 marks)**

(b) (i) Identify specimen B_5. **(1 mark)**

(ii) State three harmful effects of specimen B_5 to farm animals. **(3 marks)**

(iii) You have been appointed as a Ranch Manager at Dakawa Ranch which is heavily infested with specimen B_5. 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_5 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_1, C_2, C_3, C_4, C_5, C_6, C_7 and C_8. Observe each of the specimens and answer the questions that follow.

(a) (i) Identify each of specimens C_1, C_2, C_3. C_4 and C_5. **(5 marks)**

(ii) Explain briefly the use of each of the specimens C_1, C_2, C_3, C_4 and C_5. **(5 marks)**

(b) (i) Differentiate between groups of materials represented by specimens C_6 and C_7. **(2 marks)**

(ii) Enumerate four properties of specimen C_7. **(2 marks)**

(iii) State four roles of specimen C_6 in the soil? **(2 marks)**

(iv) Explain briefly why specimen C_6 needs to be applied at a high rate. **(1 mark)**

(v) Suggest the best time and the reason for applying specimen C_8 in the field of maize. **(2 marks)**

(vi) Explain why specimen C_7 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_7 and briefly explain how the method is done. **(2 marks)**

(viii) Explain briefly why specimen C_8 should be placed in a zone within easy reach of the plant roots. **(2 marks)**