

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

034/2

AGRICULTURAL SCIENCE 2  
PRACTICAL  
(For School Candidates Only)

TIME: 2½ Hours

Wednesday morning 24/10/2007

Instructions

1. This paper consists of **three (3)** questions.
2. Answer **two (2)** questions.
3. Each question carries 25 marks.
4. Read the instructions for each question carefully before you start answering it.
5. Cellular phones are **not** allowed in the examination room.
6. Electronic calculators are **not** allowed in the examination room.
7. Write your **Examination Number** on every page of your answer booklet(s).



This paper consists of 3 printed pages.



1. You are provided with specimens  $S_1$ ,  $S_2$ ,  $S_3$ ,  $E_1$ ,  $E_2$ ,  $E_3$  and  $E_4$ . Observe them carefully and then answer the following questions.
- (a) Identify each of the specimens  $S_1$ ,  $S_2$ ,  $S_3$ ,  $E_1$ ,  $E_2$ ,  $E_3$  and  $E_4$ . (3½ marks)
  - (b) A soil sample consists of 40% of  $S_1$ , 40% of  $S_2$  and 20% of  $S_3$ . State the name of this soil sample. (2½ marks)
  - (c)
    - (i) Which soil specimen is most difficult to cultivate? (2 marks)
    - (ii) Which soil specimen is highly aerated? (2 marks)
  - (d)
    - (i) State the functions of each of the specimens  $E_1$ ,  $E_2$ ,  $E_3$  and  $E_4$ . (4 marks)
    - (ii) Why is it not advisable to apply oil on specimen  $E_4$ ? (2 marks)
    - (iii) Name **five (5)** shapes on which specimen  $E_4$  can be made. (5 marks)
    - (iv) State a good way of storing specimen  $E_4$  in a farm workshop. (2 marks)
    - (v) Name **four (4)** types of specimen  $E_4$  in terms of roughness. (2 marks)
2. You are provided with specimens  $C_1$ ,  $C_2$ ,  $C_3$ ,  $C_4$ ,  $C_5$  and  $C_6$ . Observe them carefully and answer the following questions:
- (a) State the common name and the botanical name of each of the specimens  $C_1$ ,  $C_2$ ,  $C_3$  and  $C_6$ . (4 marks)
  - (b)
    - (i) State the mode of propagation of specimens  $C_1$ ,  $C_2$  and  $C_5$ . (3 marks)
    - (ii) State the best soil type for growing  $C_2$ . (1 mark)
    - (iii) What is the most commonly grown variety of  $C_2$ ? (1 mark)
    - (iv) Name **six (6)** pests of  $C_2$ . (6 marks)
    - (v) Name the disease that affects  $C_2$  and state the way it can be controlled. (2 marks)
  - (c) Refer to specimen  $C_3$ 
    - (i) State the most common disease that affects the plants of this specimen. (2 marks)
    - (ii) How is this specimen harvested and processed before it is stored? (2 marks)



- (d) (i) Name the crop which specimen C<sub>4</sub> infects. (1 mark)
- (ii) How is C<sub>4</sub> controlled? (1 mark)
- (e) (i) C<sub>5</sub> appears in various varieties. Name the variety of C<sub>5</sub> given. (1 mark)
- (ii) Name **two (2)** pests of C<sub>1</sub>. (1 mark)
3. You are provided with specimens L<sub>1</sub>, L<sub>2</sub>, L<sub>3</sub>, L<sub>4</sub>, L<sub>5</sub>, L<sub>6</sub>, L<sub>7</sub> and L<sub>8</sub>. Observe them carefully and then answer the following questions:
- (a) Identify each of the specimens L<sub>1</sub>, L<sub>2</sub>, L<sub>3</sub>, L<sub>4</sub>, L<sub>5</sub>, L<sub>6</sub>, L<sub>7</sub> and L<sub>8</sub>. (4 marks)
- (b) State the functions of: (i) L<sub>1</sub> (2 marks) (ii) L<sub>4</sub> (2 marks)
- (c) State the function of each of the specimens L<sub>5</sub>, L<sub>6</sub> and L<sub>7</sub> in the animal body. (9 marks)
- (d) In which specimen is S<sub>8</sub> found? (2 marks)
- (e) (i) Name **four (4)** components present in specimen L<sub>3</sub>. (4 marks)
- (ii) Name **two (2)** components present in L<sub>2</sub>. (2 marks)