

Candidate Name _____

Centre Number				Candidate Number											

EXAMINATIONS COUNCIL OF ZAMBIA

Examination for School Certificate Ordinary Level

Agricultural Science Paper 3 Practical Test

5037/3

Thursday

24 NOVEMBER 2016

Candidates answer on the question paper

Additional materials
As listed in instructions to supervisors.

Time 1 hour 30 minutes

Instructions to Candidates

Write your **name, centre number and candidate number** in the spaces at the top of this page.

There are **four (4) questions** in this paper. Answer **all** questions.

You should show the essential steps in any calculation. Record all experimental results and observations in the spaces provided on the question paper.

Use sharp pencils for your drawings. Coloured pencils or crayons should not be used.

Information for Candidates

The number of marks is shown in brackets [] at the end of each question or part question.

Cell phones are not allowed in the examination room.

FOR EXAMINER'S USE	
1	
2	
3	
4	
TOTAL	

Answer all questions

Question 1

You are provided with **two** soil samples **AS1** and **AS2**. One of them has been mixed with calcium salt.

- (a) Determine the **pH** of **AS1** and **AS2**. Describe how you carried out the test in the spaces below:

Method
.....
.....
..... [3]

Observation

AS1

AS2 [2]

pH of AS1

pH of AS2 [2]

- (b) Which of the two soil samples, **AS1** or **AS2** was mixed with calcium salt?

.....
..... [1]

- (c) (i) State the function of the calcium salt to the soil.

.....
..... [1]

- (ii) What effect does lack of calcium in the soil have on groundnuts?

.....
..... [1]

[Total: 10 marks]

Question 2

AS3 and **AS4** are parts of the digestive system of animals.

(a) Identify **AS3** and **AS4**.

AS3

AS4 [2]

(b) From which group of animals are **AS3** and **AS4** obtained?

AS3

AS4 [2]

(c) (i) **AS3** and **AS4** have a similar function. What is the function?

.....

..... [1]

(ii) State **one** other function of **AS3**.

.....

..... [1]

(d) (i) Give **three** ways in which **AS3** and **AS4** are adapted to perform their functions very efficiently.

.....

.....

..... [3]

(ii) State **one** similarity in the digestive system of all animals in the group which contains **AS3**.

.....

..... [1]

[Total: 10 marks]

Question 3

AS5 is an animal parasite.

(a) Identify **AS5**.

..... [1]

(b) Using a hand lens, examine and make a large labelled drawing of **AS5**.

(c) What type of mouth parts does **AS5** have? [5]

..... [1]

(d) Name **two** diseases that are transmitted by **AS5**.

(i) [1]

(ii) [1]

(e) What measure would a farmer take to control the spread of the diseases in **(d)** above?

..... [1]

[Total: 10 marks]

Question 4

AS6 is used in livestock production.

(a) Identify **AS6**.

..... [1]

(b) What is the operation in which **AS6** is used?

..... [1]

(c) (i) Describe how **AS6** is used in this operation.

..... [2]

(ii) Give **two** reasons why the operation mentioned in (b) above should be carried out in livestock.

..... [2]

(d) State **one** advantage and **one** disadvantage of using **AS6**.

(i) **Advantage:** [1]

(ii) **Disadvantage:** [1]

(e) Give **two** other instruments used for the operation mentioned in (b) above.

(i) [1]

(ii) [1]

[Total: 10 marks]