

Candidate Name _____

Centre Number	Candidate Number
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EXAMINATIONS COUNCIL OF ZAMBIA

Examination for General Certificate of Education Ordinary Level

Agricultural Science Paper 1 Theory

5037/1

Tuesday

8 AUGUST 2017

Additional Materials
Answer Booklet

Time: 2 hours

Instructions to candidates

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

There are **ten** questions in this paper.

Section A

Answer **all** questions.

Write your answers in the spaces provided on the question paper.

Section B

Answer any **three** questions.

Write your answers in the Answer Booklet provided.

At the end of the examination:

- 1 fasten the Answer Booklet securely to the question paper.
- 2 enter the numbers of the **Section B** questions you have answered in the grid for Examiner's use.

Information for candidates

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

You are advised to spend no longer than 40 minutes on **Section A**.

Cell phones are not allowed in the examination room.

FOR EXAMINER'S USE	
Section A	
Section B	
Total	

Section A

Answer all questions in this section

1 **Figure 1** shows a vegetative propagation method.

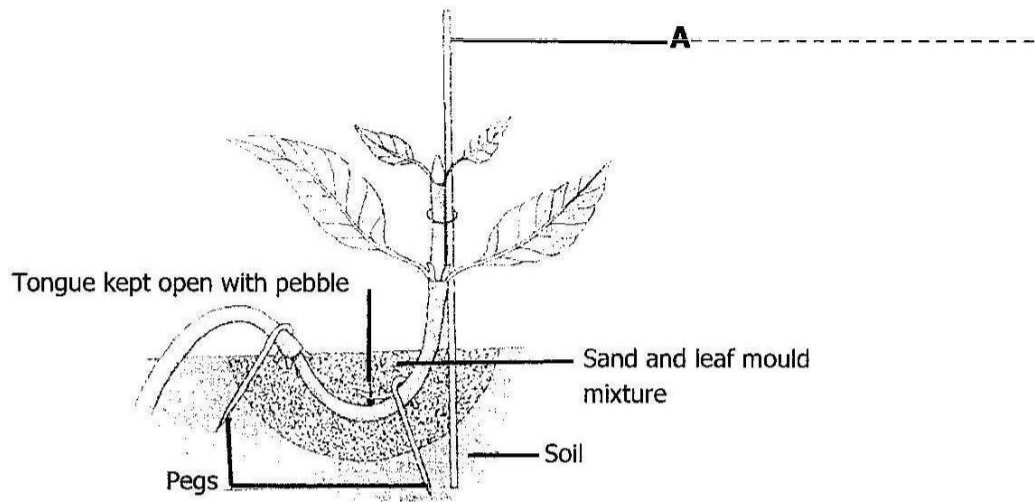


Figure 1

(a) (i) Identify the vegetative propagation method represented by **figure 1**.

..... [1]

(ii) Label part **A** on the diagram. [1]

(iii) Outline **two** conditions that lead farmers to using the method in **figure 1**.

1

.....

2

..... [2]

(b) Give **two** advantages for carrying out vegetative propagation.

1

.....

2

.....

[2]

(c) How would a farmer:

(i) ensure that the plant structure in **figure 1** survives?

.....

.....

[1]

(ii) conclude that the structure is growing well?

.....

.....

[1]

[8 marks]

2 (a) What is meant by the term “day length” in agriculture?

..... [2]

(b) State the importance of day length to crop growth.

.....

.....

.....

..... [2]

(c) Explain how farmers apply the knowledge of day length in agriculture.

.....

.....

.....

..... [2]

(d) Classify sweet potatoes and maize crops according to day length.

Sweet potatoes

.....

Maize

..... [2]

[8 marks]

3 **Figure 2** shows the digestive system of a hen.

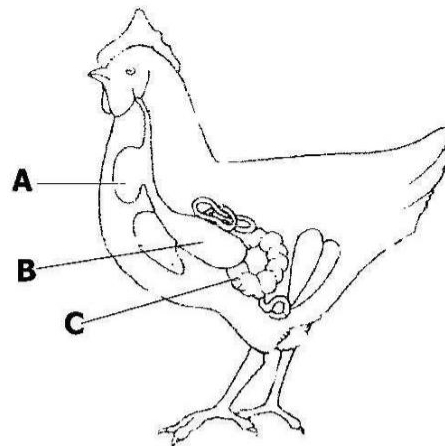


Figure 2

(a) Name the structures labelled **A**, **B** and **C**.

A [1]

B [1]

C [1]

(b) Explain the functions of the structures labelled **A** and **B**.

A [1]
.....

B [2]
.....

(c) How can you prevent a hen from laying soft-shelled eggs?

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

(d) What should a farmer do to improve the function of structure **C** in a hen?

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

[8 marks]

4 **Figure 3** shows a relationship between supply and price.

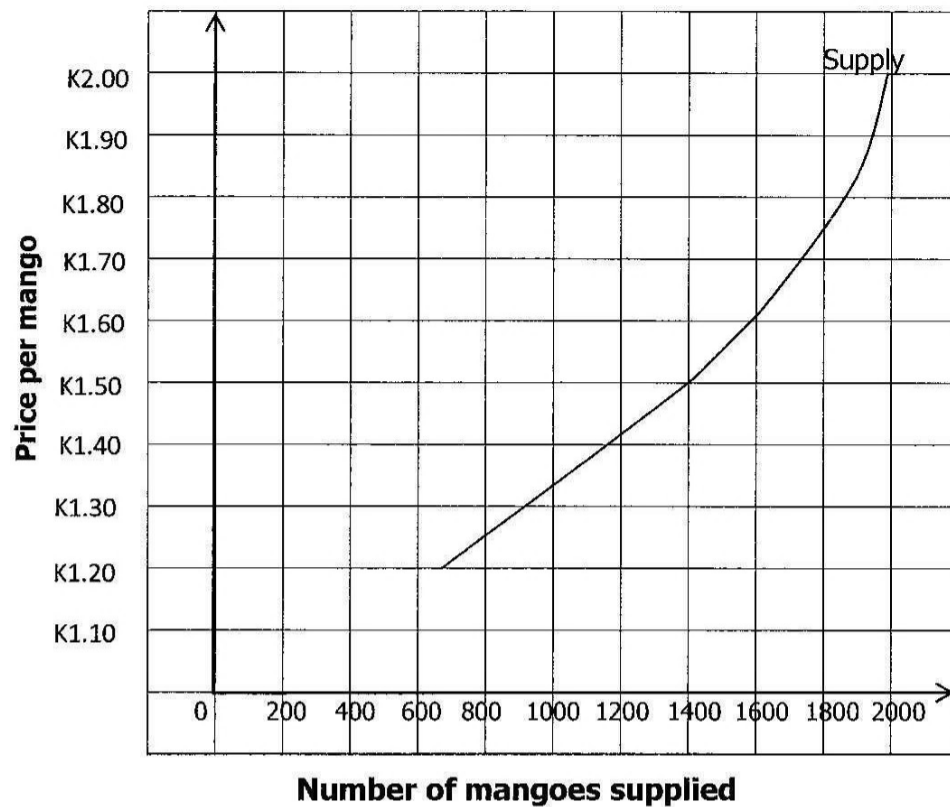


Figure 3

(a) What is the price per mango when:

(i) 700 mangoes are supplied?

..... [1]

(ii) 2000 mangoes are supplied?

..... [1]

(iii) How many mangoes will be supplied at the price of K1.80 per mango?

..... [1]

(b) State **three** factors of production on a farm.

.....

.....

.....

[3]

(c) Give **two** ways by which a farmer can increase sales of agricultural produce/products on a farm.

.....

.....

[2]

[8 marks]

5 **Figure 4** shows a farm activity during seedbed preparation.

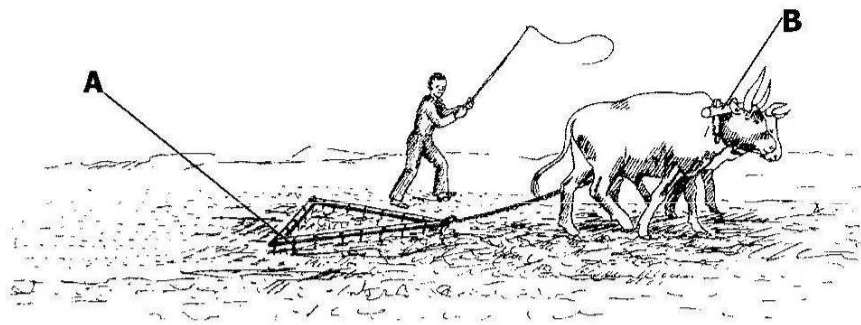


Figure 4

(a) Identify the farm activity represented by **figure 4**.

..... [1]

(b) Name:

(i) the implement labelled **A**.

..... [1]

(ii) the implement labelled **B**?

..... [1]

(c) Give **three** reasons for using the farm implement labelled **A**.

(i)

.....

(ii)

.....

(iii)

..... [3]

(d) Outline maintenance practices which need to be carried out on the farm implement labelled **A**.

.....

.....

.....

..... [2]

[8 marks]

Section B

Answer any three questions from this section.

- 6** (a) Explain why the local soil and weather conditions are suitable for growing groundnuts in your area. [9]
- (b) Discuss the growing of groundnuts under the following:
- (i) Preparation of soil for sowing, [3]
- (ii) Sowing, [4]
- (iii) Weed control. [4]
- [Total: 20]**
- 7** (a) Outline the factors that affect the development of agriculture in Zambia. [11]
- (b) Give examples of different kinds of agricultural enterprises. [9]
- [Total: 20]**
- 8** (a) Explain why fish farmers prefer *Tilapia* breed of fish in fish farming. [10]
- (b) (i) What is integrated fish farming? [3]
- (ii) State the advantages of integrated fish farming. [4]
- (c) Describe different ways of harvesting fish from fish ponds. [3]
- [Total: 20]**
- 9** (a) Describe how cooperatives are organized. [14]
- (b) Explain the common interest of farmers in a cooperative. [6]
- [Total: 20]**
- 10** (a) List **six** advantages of mechanizing agriculture. [6]
- (b) Outline the different maintenance activities to be carried out on farm equipment before storing them. [8]
- (c) Describe a suitable site for farm buildings. [6]
- [Total: 20]**