Candidate Name	Centre Number	Candidate Number
MATHS GUARDIOLA	+447852954215	

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

AGRICULTURE

5034/2

PAPER 2

NOVEMBER 2017 SESSION

2 hours

Additional materials:
Answer paper,
Scientific calculator.

TIME 2 hours

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces provided at the top of this page and on all separate answer paper used.

Section A

Answer **all** questions.

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

Section B

Answer **two** questions from any **one** of Options **1, 2, 3** or **4**.

Write your answers on the separate answer paper provided.

At the end of the examination, fasten the separate answer paper securely to the question paper.

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 **80 minutes** on Section A.

FOR EXAMINER'S USE	
Section A	
Section B	
TOTAL	

This question paper consists of 15 printed pages and 1 blank page.

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Section A [70 marks]

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Answer **all** questions in this section.

Candidates are advised to spend approximately **80 minutes** on this section.

1 **(a)** State **four** reasons why forests are important in Zimbabwe.

(i) _____

_____

(ii) _____

_____

(iii) _____

_____

(iv) _____

_____ [4]

(b) State **three** factors affecting the breeding of wild life.

(i) _____

_____

(ii) _____

_____

(iii) _____

_____ [3]

(c) State **three** forms of land use in Zimbabwe.

(i) _____

_____

(ii) _____

_____

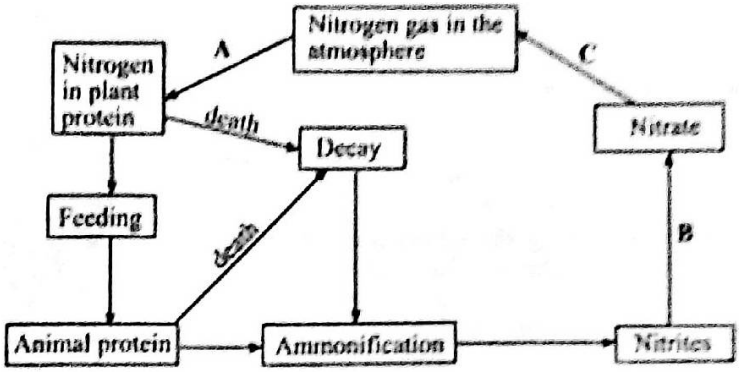
(iii) _____

_____ [3]

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2 (a) The diagram below describes the nitrogen cycle.



(i) With reference to the above diagram of the nitrogen cycle, explain the processes **A**, **B**, and **C**.

A _____

B _____

C _____ [3]

(ii) State the bacteria responsible for the processes **B** and **C**.

Process **B**. _____

Process **C**. _____ [2]

(b) List **three** processes through which nitrogen is lost from the soil.

(i) _____

(ii) _____

(iii) _____ [3]

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(c) Describe the deficiency symptoms of the following nutrients in a cereal crop:

(i) Boron _____

_____. [1]

(ii) Molybdenum _____

_____. [1]

3 (a) The following are signs of deficiency of nutrients in plants. State the nutrient associated with the symptoms:

(i) yellowing of leaves _____,

(ii) Poor root system _____,

(iii) Poor grain or tuber formation _____. [3]

(b) State **one** disease of maize caused by each of the following:

(i) bacteria _____,

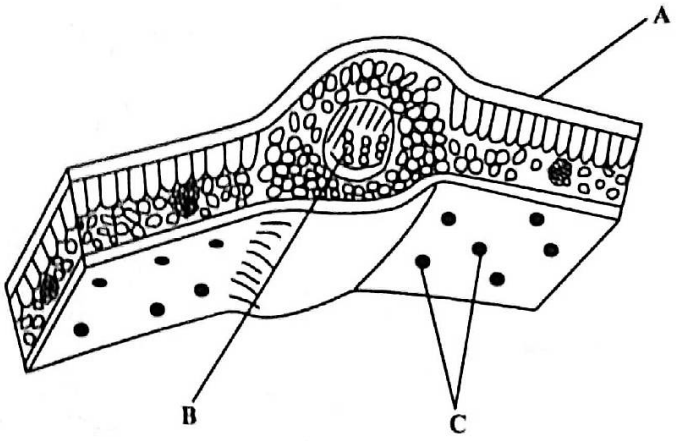
(ii) fungi _____,

(iii) virus _____. [3]

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(c) The diagram below illustrates a vertical section through a leaf.



Label parts **A**, **B** and **C**.

A _____

B _____

C _____ [3]

Describe **one** function of Part **C**. _____

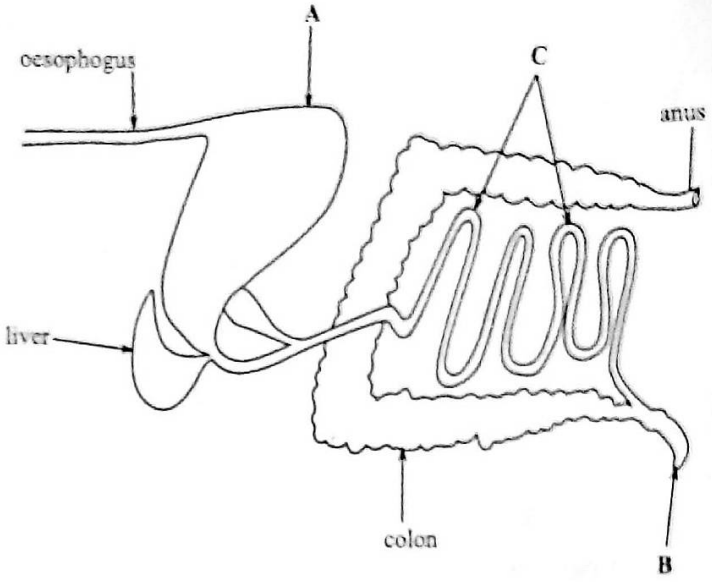
_____

_____ [1]

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4 The diagram below shows the digestive system of a pig.



(a) With reference to the above diagram of the digestive system of a pig, label parts **A**, **B** and **C**.

(i) **A** _____

(ii) **B** _____

(iii) **C** _____ [3]

(b) Explain the functions of the parts labelled **B** and **C**.

(i) **B** _____

_____

(ii) **C** _____

_____ [2]

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(c) Explain the following terms used in animal nutrition:

(i) maintenance ration_____

_____

_____, [1]

(ii) production ration_____

_____

_____. [1]

(d) Give **three** factors that may affect the intake of food by a farm animal.

(i) _____

_____

(ii) _____

_____

(iii) _____

_____ [3]

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5 (a) Explain **four** reasons why a farmer would improve the breeds of his animals.

[4]

(b) Explain any **three** advantages of cross breeding in animal production.

[3]

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(c) Describe any **three** signs of heat in a female farm animal.

_____

_____

_____

_____

_____

_____

_____

_____

_____ [3]

6 (a) Explain the functions of **four** materials required in the construction of a farm road.

(i) _____

_____

(ii) _____

_____

(iii) _____

_____

(iv) _____

_____ [4]

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(b) Describe the maintenance of a diesel irrigation pump.

[3]

(c) Discuss **three** factors considered when selecting a live fence.

[3]

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7 (a) Discuss **three** factors considered by a farmer in decision making.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____ [3]

(b) Explain the difference between the following terms used in agriculture economics.

(i) inputs and outputs _____

_____

_____

_____ [2]

(ii) risk and uncertainty _____

_____

_____

_____ [2]

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(c) Give **three** reasons why a farmer prepares a budget.

(i) _____

_____

(ii) _____

_____

(iii) _____

_____ [3]

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Section B [30 marks]

Answer any **two** questions only from any **one** of **Options 1, 2, 3 or 4.**

OPTION 1: CROP HUSBANDRY

8 (a) Describe **five** harmful effects of pests on crops. [5]

(b) Explain **five** cultural methods of controlling crop pests. [5]

(c) Describe the advantages and disadvantages of mechanised methods of harvesting crops. [5]

9 Describe the production of a named **root** or **tuber** crop under the following headings:

(a) Land preparation, [5]

(b) Planting and fertilizer application. [10]

10 (a) Explain the economic effects of weeds. [10]

(b) Discuss the advantages of primary tillage to a farmer. [5]

OPTION 2: LIVESTOCK HUSBANDRY

11 (a) With reference to a **named ruminant** animal, describe a **named** bacterial disease under the following headings:

(i) cause, [1]

(ii) control and prevention. [6]

(b) Discuss why a farmer would prefer a spray race over a plunge dip. [8]

12 (a) Describe the life cycle of a **two** (2) host tick. [7]

(b) Discuss the importance of the Animal Health Act. [8]

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13 (a) Discuss the factors considered by a farmer when selecting a young animal for breeding. [6]

(b) Describe the management of a **named** ruminant animal from birth to weaning. [9]

OPTION 3: DECORATIVE HORTICULTURE

14 (a) For a **named** hedge or shrub, discuss the advantages of asexual propagation. [8]

(b) Describe the maintenance of a **named** hedge or shrub. [7]

15 (a) What factors affect the choice of a lawn grass? [5]

(b) Describe the establishment of a **named** lawn grass under the following headings:

(i) tools used for maintenance, [5]

(ii) fertilizer application. [5]

16 Describe the growing of a **named** bedding flower under the following headings:

(a) weed control, [5]

(b) disease and pest control, [5]

(c) preparation for marketing. [5]

OPTION 4: WILDLIFE MANAGEMENT

17 Describe how wild animals adapt to their environmental conditions. [15]

18 (a) Discuss the factors that influence the quality of wild life products. [5]

(b) Describe ways of harvesting wild life. [10]

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