Candidate Name	Centre Number	Candidate Number
MATHS GUARDIOLA	+447852954215	

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

AGRICULTURE 4001/2

PAPER 2

NOVEMBER 2023 SESSION 2 hours

Additional materials:
Answer sheet,
Scientific calculator.

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 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, one from each of Options **1** and **2**.

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.

FOR EXAMINER'S USE	
Section A	
Section B	
TOTAL	

INFORMATION FOR CANDIDATES

The marks are 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.

This question paper consists of 8 printed pages.

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SECTION A [60 MARKS]

Answer **all** questions in this section.

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

1 **(a)** State any **four** reasons for land preparation.

[4]

(b) Identify classes of plants according to their life cycles.

[3]

(c) Differentiate between photosynthesis and respiration.

[3]

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2 (a) State the **four** types of organic fertilizers.

[4]

(b) Explain the causes of water pollution.

[4]

(c) Describe the following terms:

(i) ammonification,

[1]

(ii) nitrification.

[1]

3 (a) Explain any **four** methods of weed control.

[4]

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(b) Discuss the precautionary measures taken when using agro-chemicals.

[3]

(c) Differentiate between monocotyledons and dicotyledons.

[3]

4 (a) State any **four** conditions considered when designing a brooder house.

[4]

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(b) Identify any advantages of artificial brooding.

[4]

(c) Evaluate the nutritive value of fish farming.

[2]

5 **(a)** Evaluate the use of metal sheets for roofing farm structures.

[2]

(b) Identify any **five** building materials used in the construction of a water trough for cattle.

[5]

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(c) Describe any **three** properties of wood selected for making yokes.

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[3]

6 (a) List any **four** risks in agriculture.

[4]

(b) Explain any **four** principles of cooperatives.

[4]

(c) Identify any **two** physical farm records.

[2]

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SECTION B: [40 MARKS]

Answer **two** questions only, one question from each of **option 1** and **option 2**

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OPTION 1: CROP HUSBANDRY

7 **(a)** State advantages of conservation tillage. [8]

(b) Justify the use of hybrid seed in crop production. [7]

(c) Discuss the beneficial effects of weeds. [5]

8 **(a)** **(i)** State any **four** cultural methods of weed control. [4]

(ii) Identify the planting systems for an orchard. [4]

(b) Discuss maize streak disease under the following headings:

(i) mode of transmission, [2]

(ii) prevention, [2]

(iii) signs of infection. [3]

(c) Discuss the importance of record keeping in cereal crop production. [5]

9 **(a)** Discuss factors considered when selecting a tree for an agro-forestry plot. [8]

(b) Explain the advantages of overhead irrigation. [7]

(c) Describe the fertilisation process in plants. [5]

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OPTION 2: ANIMAL HUSBANDRY

10 (a) Explain any **four** functions of the digestive parts of a non-ruminant. [8]

(b) Describe the symptoms of roundworm attack in farm animals. [7]

(c) Discuss the difference between cross breeding and inbreeding. [5]

11 (a) Outline the process of egg formation in poultry. [8]

(b) (i) Identify functions of seminal fluids. [3]

(ii) Describe a suitable housing for rabbits. [4]

(c) (i) Calculate the dressing out percentage of a rabbit with a live mass of **12kg** and a dressing weight of **10.5kg**. Show all working. [3]

(ii) Identify **two** methods of castrating farm livestock. [2]

12 Discuss a **named** viral disease of a **named** ruminant under the following headings:

(a) (i) signs of attack, [4]

(ii) prevention and control, [3]

(iii) treatment. [1]

(b) (i) Explain reasons for identifying farm animals. [3]

(ii) Identify nutrient deficient problems associated with livestock production. [4]

(c) Identify any **five** by products of a ruminant farm animal. [5]

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