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 2013 SESSION 2 hours

Additional materials:
Answer paper

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	

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Section A [70 marks]

Answer **all** questions in this section.

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

1 (a) Define the following terms:

(i) crop rotation,

_____

_____

_____ [1]

(ii) mixed farming.

_____

_____

_____ [1]

(b) Explain the importance of the following terms in nursery management:

(i) hardening off,

_____

_____

_____ [1]

(ii) pricking out.

_____

_____

_____ [1]

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(c) State any two functions of Convention of International Trade in Endangered Species (CITES).

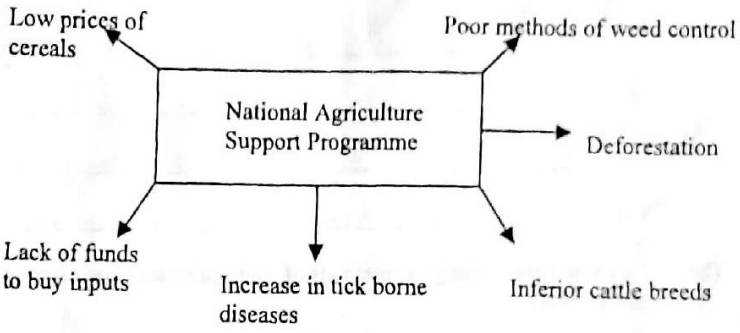
_____

_____

_____

_____ [2]

(d) Resettled farmers are faced with many challenges. Study the figure and complete the table by matching the best challenge with the appropriate service provider.



National agriculture programme	Challenge
(i) Arex	
(ii) Agribank	
(iii) Campfire	
(iv) Veterinary service	

[4]

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2 (a) (i) Describe the process of physical weathering in soil formation.

_____

_____

_____ [2]

(ii) State any **two** processes by which soil nutrients are taken up by root hairs.

_____

_____ [2]

(iii) State **three** importances of soil micro-organisms.

_____

_____

_____

_____ [3]

(b) Describe **three** biological methods of controlling soil erosion in **arable** lands.

_____

_____

_____

_____ [3]

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3 (a) Explain any **four** importances of water to plants.

[4]

(b) Describe the importance of Integrated Pest Management.

[3]

(c) Explain any **three** cultural methods of weed control.

[3]

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4 (a) (i) Describe **four** stages which take place when a cell is undergoing mitosis.

_____

_____

_____

_____ [4]

(ii) A pure bred white bull WW is crossed with a pure bred red cow (rr). Complete the genetic diagram to show parental gametes F_1 genotype and phenotype.

Parents	White bull	Red cow
Parents genotype		
Gametes		
F_1 genotype		
F_1 phenotype		

[4]

(b) Suggest any **two** reasons why farmers would practise inbreeding.

_____

_____

_____ [2]

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5 (a) Explain the functions of water in animal nutrition.

_____

_____

_____

_____

_____

_____

_____

_____ [4]

(b) Illustrate the mixing ratio of a feed stuff with 10% digestible crude protein (DCP). If sunflower has 35% DCP and maize has 7% DCP. Use Pearson square method.

[3]

(c) Explain the functions of the following parts in the digestive system of a ruminant animal:

(i) Rumen, _____

_____ [2]

(ii) Colon. _____

_____ [1]

[Turn over

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6 (a) Explain the preparation of wooden fencing posts

[3]

(b) State any **three** disadvantages of using wooden posts in fencing.

[3]

(c) Name any **two** types of harnesses.

[2]

(d) Explain any **two** features of a good farm road.

[2]

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7 (a) (i) Explain factors which influence the supply of a named product.

Name of product _____

_____

_____

_____

_____ [3]

(ii) State any **three** sources of information to a farmer when budgeting for a given enterprise on a farm.

_____

_____

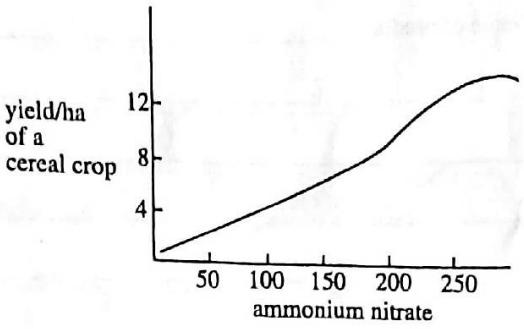
_____

_____ [3]

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(b) The graph below is showing the relationship between yield and fertiliser application of a cereal crop.



(i) What will be the yield of cereal crop if you apply 200 kg of Ammonium Nitrate?

_____ [1]

(ii) Explain the effects of low application of Ammonium Nitrate on cereal crops.

_____

_____

_____

_____ [3]

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Section B [30 marks]

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

OPTION I: CROP HUSBANDRY

8 **(a)** With the aid of a well labelled diagram of an animal drawn plough, explain the functions of any **ten** parts. [10]

(b) A silage maize crop is planted at a spacing of 800 mm × 200 mm, calculate the plant population per hectare.
Show all your working. [5]

9 **(a)** Describe any **five** management practices carried out between planting and harvesting of a named tuber or root crop. [10]

(b) Describe the preparation for marketing of a **named** tuber or root crop. [5]

10 **(a)** For a **named** cash crop, explain the management practices from planting up to harvesting. [10]

(b) Describe the processing of a **named** cash crop product up to marketing. [5]

OPTION 2: LIVESTOCK HUSBANDRY

11 For a **named** internal parasite, discuss it under the following:

(i) signs and symptoms, [8]

(ii) prevention and control. [7]

12 **(a)** Describe any **two** animal handling facilities and explain their importance in livestock production. [10]

(b) Explain factors to be considered when selecting a site for the construction of animal handling facilities. [5]

13 For a **named** internal parasite of a non ruminant animal,

(a) describe the life cycle, [10]

(b) describe the methods of control. [5]

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