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 2015 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	

This question paper consists of 10 printed pages and 2 blank pages.

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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.*

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1 **(a)** State any **three** environmental factors limiting land use in Zimbabwe.

1. _____

2. _____

3. _____ [3]

(b) Describe how the following factors affect crop productivity:

(i) high rainfall intensity,

_____

_____ [1]

(ii) low rainfall intensity.

_____

_____ [1]

(c) **(i)** Describe the importance of indigenous trees in Zimbabwe.

_____

_____

_____

_____ [2]

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(ii) State any **three** principles to be observed when designing a crop rotation programme.

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1. _____

_____

2. _____

_____

3. _____

_____ [3]

2 (a) **Table 2.1** shows information about soil moisture of different soil types.

Table 2.1

soil type	field capacity %	wilting point %	available soil water %
light sand	3	1	2
sandy loam	14		8
silty loam	25	10	
clay loam	29	20	

(i) Complete **Table 2.1**. [3]

(ii) If a dry spell occurs, in which soil type would the crops be least likely to show signs of moisture stress?

_____ [1]

(b) Describe any **two** effects of adding lime to the soil.

1. _____

_____

2. _____

_____ [2]

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(c) Describe properties of clay and sandy soils that make them ideal for crop production.

(i) *clay*_____

_____

_____ [2]

(ii) *sandy*_____

_____

_____ [2]

3 (a) Distinguish between *basal dressing* and *top dressing* fertilizers.

_____

_____

_____

_____ [2]

(b) State the importance of incorporating organic manure on arable soils.

_____

_____

_____

_____

_____ [4]

(c) Explain the terms:

(i) *imbibition* _____

_____ ,[2]

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6 (a) (i) Describe any **two** factors to be considered when siting a farm road.

1. _____

_____

2. _____

_____ [2]

(ii) State any **three** reasons why gravel material is used to maintain farm roads.

1. _____

2. _____

3. _____ [3]

(b) (i) Describe any **two** desirable characteristics of materials used for making oxen yokes.

1. _____

2. _____ [2]

(ii) Explain the importance of fences to farmers.

_____

_____

_____ [3]

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7 (a) The following list is made up of risks and uncertainties. Complete the blank spaces using an R for risk and U for uncertainty.

(i) change in government policy _____

(ii) damage of crops by drought _____

(iii) theft of cattle by poachers _____

(iv) price fluctuation of inputs _____ [4]

(b) Distinguish between the following terms:

(i) variable cost and fixed cost ,

_____

_____

_____ [2]

(ii) gross profit margin and net farm profit .

_____

_____

_____ [2]

(c) State any **two** benefits of farming co-operatives.

1._____

_____

2._____

_____ [2]

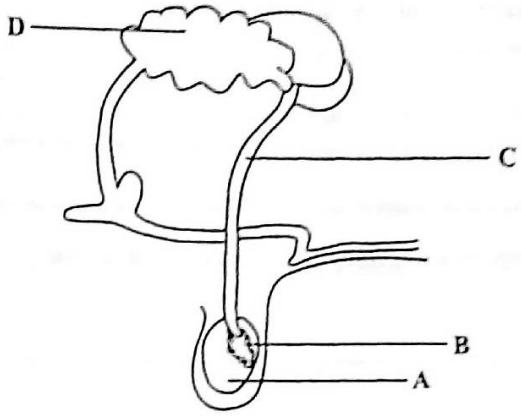
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(ii) *diffusion* _____

_____ [2]

4 The diagram shows the reproductive system of a bull.

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(a) (i) Name the structures labelled.

A, _____ [1]

C. _____ [1]

(ii) State the function of the part labelled

B, _____ [1]

D. _____ [1]

(b) Describe the life-cycle of **one** host tick.

_____

_____

_____

_____

_____

_____ [5]

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(c) For either rabbit or layers, state a stage when a maintenance ration would be used.

*name of animal*_____

*stage*_____ [1]

5 (a) State any **three** effects of ticks on farm animals.

1._____

2._____

3._____ [3]

(b) Explain the importance of studying the life cycle of animal parasites.

_____

_____

_____ [3]

(c) A poultry farmer would like to formulate a ration with a total mixture of 500 kg, with a mixing ratio of 2 parts concentrate, to 3 parts maize meal.

Calculate the quantities of each ingredient (show all your working)

[4]

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Section B [30 marks]

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

OPTION 1: CROP HUSBANDRY

8 (a) For a **named** legume crop, discuss the factors that affect the choice of a suitable variety to grow. [7]

(b) Describe the method of harvesting a **named** legume crop. [8]

9 (a) Discuss the advantages and disadvantages of using herbicides in crop production. [10]

(b) Describe other methods of weed control besides use of herbicides. [5]

10 For a **named** cash crop, discuss the effects of weeds on

(a) growth, [9]

(b) harvesting. [6]

OPTION 2: LIVESTOCK HUSBANDRY

11 (a) For a **named** ruminant animal, describe the management of its young from birth up to weaning. [10]

(b) Describe the desirable breeding characteristics of a female ruminant animal. [5]

12 (a) For a **named** ruminant, describe its management from weaning to marketing. [10]

(b) Explain why it is necessary to supplement feed to ruminants in winter. [5]

13 (a) Discuss feed stuffs grown on the farm which meet the nutritional requirements of a **named** non-ruminant animal. [9]

(b) Describe a **named** viral disease under the following sub-headings

(i) symptoms, [4]

(ii) prevention and control. [2]

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