MATHS GUARDIOLA +447852954215

Candidate Name | Centre Number | Candidate Number

ZIMBABWE SCHOOL EXAMINATIONS COUNCIL

General Certificate of Education Ordinary Level

AGRICULTURE

PAPER 2 **5034/2**

NOVEMBER 2012 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 13 printed pages and 3 blank pages.

Copyright: Zimbabwe School Examinations Council, N2012.

©ZIMSEC N2012

[Turn over

MATHS GUARDIOLA +447852954215 Scanned by CamScanner

For Examiner's Use

Section A [70 marks]

Answer **all** questions in this section.

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

1 **(a)** Fill in the table any **two** types of indigenous hardwoods and any **two** exotic softwoods grown in Zimbabwe.

Indigenous hardwoods	Exotic softwoods
(i)	(i)
(ii)	(ii)

[4]

(b) Outline any **four** advantages of practising agroforestry.

(i) _____

_____

(ii) _____

_____

(iii) _____

_____

(iv) _____

_____ [4]

(c) Suggest any **two** solutions to deforestation.

(i) _____

(ii) _____ [2]

MATHS GUARDIOLA +447852954215 Scanned by CamScanner

For Examiner's Use

2 (a) Explain why it is important for a farmer to read instructions when using chemicals.

_____

_____

_____ [3]

(b) Name any **one** plant viral disease spread by an insect.

_____

_____ [1]

(c) Explain the difference between contact and systemic pesticides.

_____

_____

_____

_____ [2]

(d) Although weeds are harmful to crop plants, they do have some beneficial effects. List any four ways in which they are beneficial.

(i) _____

(ii) _____

(iii) _____

(iv) _____ [4]

MATHS GUARDIOLA +447852954215 Scanned by CamScanner

For Examiner's Use

(a) (i) State the word equation for aerobic respiration.

[1]

(ii) Explain the importance of respiration in plant growth.

[3]

(b) Briefly describe how a leaf structure is adapted to transpiration.

[3]

(c) Complete the table below, an example is given for you.

Plant	Food storage organ
(i) maize	seed
(ii) onion	
(iii) sugarcane	
(iv) carrot	

[3]

MATHS GUARDIOLA +447852954215 Scanned by CamScanner

4 (a) Explain the major function of the following parts of the digestive system of a non-ruminant animal.

For Examiner's Use

(i) Oesophagus

[1]

(ii) Pancreas

[1]

(iii) Caecum

[1]

(b) Explain the environmental factors that affect the functions of genes of an animal.

[3]

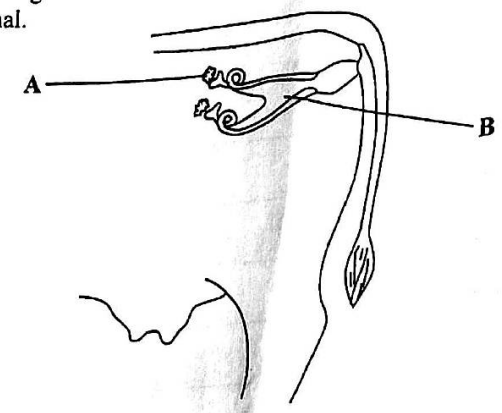
(c) Briefly describe the steps taken when slaughtering a rabbit or an off-layer for marketing.

[4]

MATHS GUARDIOLA +447852954215 Scanned by CamScanner

For Examiner's Use

5 **(a)** The diagram below shows the reproductive system of a female ruminant animal.



(i) Name the parts labelled

A _____

B _____ [2]

(ii) In which part of the reproductive system does fertilisation take place?

_____

_____ [1]

(b) Explain the difference between mitosis and meiosis.

_____

_____

_____

_____ [2]

MATHS GUARDIOLA +447852954215 Scanned by CamScanner

For Examiner's Use

(c) Illustrate, using a diagram, how a three-way plant hybrid is produced.

[3]

(d) State any **two** advantages of open pollinated varieties.

(i)

(ii)

[2]

6 (a) A farmer intends to start a goat rearing project and has to construct a paddock measuring 100m by 50m.

(i) How many 50kg bundles of mesh wire does the farmer need if each bundle covers 25m?

[3]

MATHS GUARDIOLA +447852954215 Scanned by CamScanner

For Examiner's Use

(ii) What other fencing materials would the farmer require for the paddock?

_____

_____

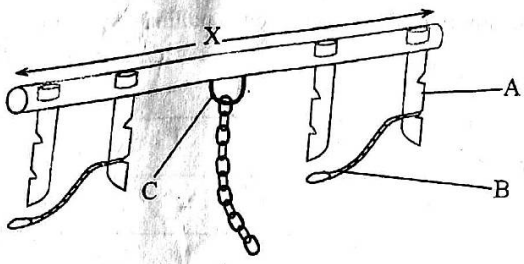
_____

_____

_____

_____ [3]

(b) The diagram shows a standard double neck yoke for harnessing oxen during ploughing.



(i) Name the parts labelled A, B and C

A _____

B _____

C _____ [3]

(ii) What is the standard length (X) of a double neck yoke?

_____ [1]

MATHS GUARDIOLA +447852954215 Scanned by CamScanner

For Examiner's Use

7 (a) Marketing assists a farmer to present goods to the consumer. Explain any **three** marketing functions.

(i) _____

(ii) _____

(iii) _____

[6]

(b) The schedule below shows the layout of the farmer's diary for the month of September 2005.

DATE	ACTIVITY
11.09.05	Bought 10 bags of maize seed at $500each.
11.09.05	Paid $400 for farm rates.
15.09.05	Bought chemical for dipping for $400.
18.09.05	Hired a tractor to plough for $500.
20.09.05	Paid $400 insurance for the farm.
24.09.05	Purchased 2 sows for breeding for $500.
28.09.05	Hired equipment for fencing for $200.

(i) Calculate the farmer's total variable costs for September 2005.

_____

[2]

MATHS GUARDIOLA +447852954215 Scanned by CamScanner

For Examiner's Use

(ii) State the importance of the information in **b (i)**.

[2]

MATHS GUARDIOLA +447852954215 Scanned by CamScanner

Section B

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

OPTION I: CROP HUSBANDRY

8 **(a)** Describe adjustments that can be done on a cultivator when weeding. [7]

(b) Discuss the advantages and disadvantages of using an ox-drawn cultivator to control weeds in arable lands. [8]

9 **(a)** Describe the necessary steps that a farmer can take to ensure that a fine seedbed is prepared. [7]

(b) Describe the harvesting and marketing of a named legume crop. [8]

10 With reference to a named cash crop, describe it under the following headings:

(a) soil and climatic requirements, [8]

(b) fertilizer management. [7]

OPTION 2: LIVESTOCK HUSBANDRY

11 **(a)** For either foot and mouth or swine fever, discuss the disease under the following headings:

(i) cause, [1]

(ii) symptoms, [3]

(iii) prevention and control. [4]

(b) Explain the legislation related to notifiable diseases in Zimbabwe. [7]

12 **(a)** Describe the symptoms of attack by a two-host tick for a named ruminant. [7]

(b) Name **two** dipping types and explain the advantages and disadvantages of each type. [8]

MATHS GUARDIOLA +447852954215 Scanned by CamScanner

13 (a) Describe the housing system for the young of a named non-ruminant animal. [6]

(b) Discuss the nutrient requirements for the young of a named ruminant animal. [9]

OPTION 3: DECORATIVE HORTICULTURE

14 (a) Explain, giving reasons, how

(i) the initial fertilizer application is carried out before planting lawns. [7]

(ii) top dressing an established lawn is done. [8]

15 Describe the establishment of a named hedge or shrubs under the following headings:

(i) preparation of the planting hole, [8]

(ii) planting the hedge or shrub, [4]

(ii) maintenance of the hedge or shrub. [3]

16 (a) For a named bedding flower, describe its management up to marketing stage. [10]

(b) Explain how you would prepare flower cuttings for marketing. [5]

MATHS GUARDIOLA +447852954215 Scanned by CamScanner

OPTION 4: WILDLIFE MANAGEMENT

17 (a) (i) What are problem animals? [1]

(ii) Discuss ways of managing problem animals. [5]

(b) Explain how a quota is set. [9]

18 (a) Explain how each of the following is important in wildlife monitoring in Zimbabwe:

(i) animal numbers, [4]

(ii) species diversity, [4]

(iii) trophy quality. [4]

(b) Explain the importance of a worker bee in a colony. [3]

19 (a) Explain, giving reasons, why it is necessary to monitor a habitat. [5]

(b) Discuss the environmental factors threatening wildlife in Zimbabwe. [10]

MATHS GUARDIOLA +447852954215 Scanned by CamScanner