



General Certificate of Secondary Education  
2023

Centre Number

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Candidate Number

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# Agriculture and Land Use

Unit 2

Animals on the Land



[GAU21]

\*GAU21\*

**THURSDAY 22 JUNE, AFTERNOON**

## TIME

1 hour 15 minutes.

## INSTRUCTIONS TO CANDIDATES

Write your Centre Number and Candidate Number in the spaces provided at the top of this page.

**You must answer the questions in the spaces provided.**

**Do not write outside the boxed area on each page or on blank pages.**

Complete in black ink only. **Do not write with a gel pen.**

Answer **all nine** questions.

## INFORMATION FOR CANDIDATES

The total mark for this paper is 75.

Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

Quality of written communication will be assessed in Questions **7(b)** and **9**.

13575.05R



\*24GAU2101\*

1 The gestation period is the length of time a pregnancy lasts.

(a) Draw **lines** to match each farm animal to its typical gestation period.

Animal	Gestation Period
pig	280 days
cow	114 days
sheep	150 days
	330 days

[3]



**(b)** When a lamb is born it is very important that it receives colostrum within a few hours.

Describe what colostrum is and explain how it helps the newborn animal.

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[2]

**(c)** Describe how you would assess the health of a newborn lamb.

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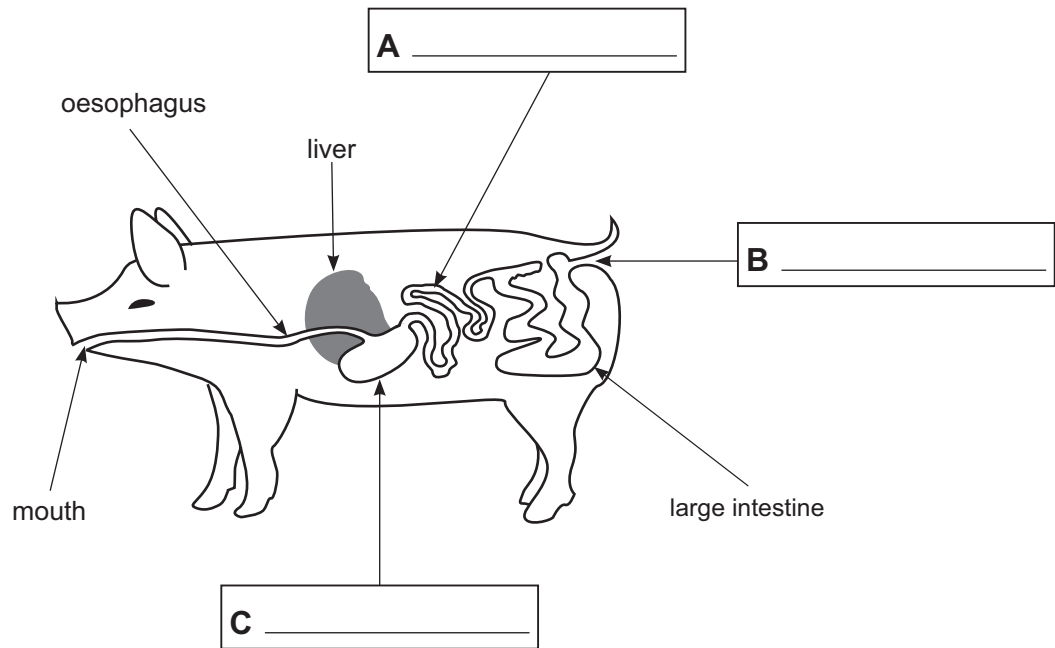
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[1]



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

(a) (i) Label the parts **A**, **B** and **C** of the pig's digestive system.



[3]

(ii) State the function of the following parts.

Mouth \_\_\_\_\_

\_\_\_\_\_

Large intestine \_\_\_\_\_

\_\_\_\_\_

[2]

(b) (i) A cow has a ruminant digestive system.

What name is given to describe a pig's digestive system?

\_\_\_\_\_

[1]



(ii) Which food source makes up most of a pig's diet on a commercial pig farm?

\_\_\_\_\_ [1]

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[Turn over



\*24GAU2105\*

3 The photograph shows slurry being spread using an upward splash plate.



Source: © Getty Images

(a) (i) Describe why the method shown is no longer permitted.

\_\_\_\_\_ [1]

(ii) State **two other** methods of slurry application.

1. \_\_\_\_\_ [2]

2. \_\_\_\_\_



The Nitrates Directive (Nutrient Action Programme) requires all farmers to follow rules when spreading slurry.

(b) Apart from not using an upward splash plate, describe **two** other rules farmers must follow when spreading slurry and explain how they help the environment.

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[3]

[Turn over

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\*24GAU2107\*

4 The photograph shows a farmer checking the health of his animals.



Source: Chief Examiner

(a) State **three** precautions that the farmer should take to protect himself when carrying out this task.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_ [3]

Medicines must be used correctly on the farm.

(b) Describe **three** things that a farmer must check before giving medicine to an animal.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_ [3]





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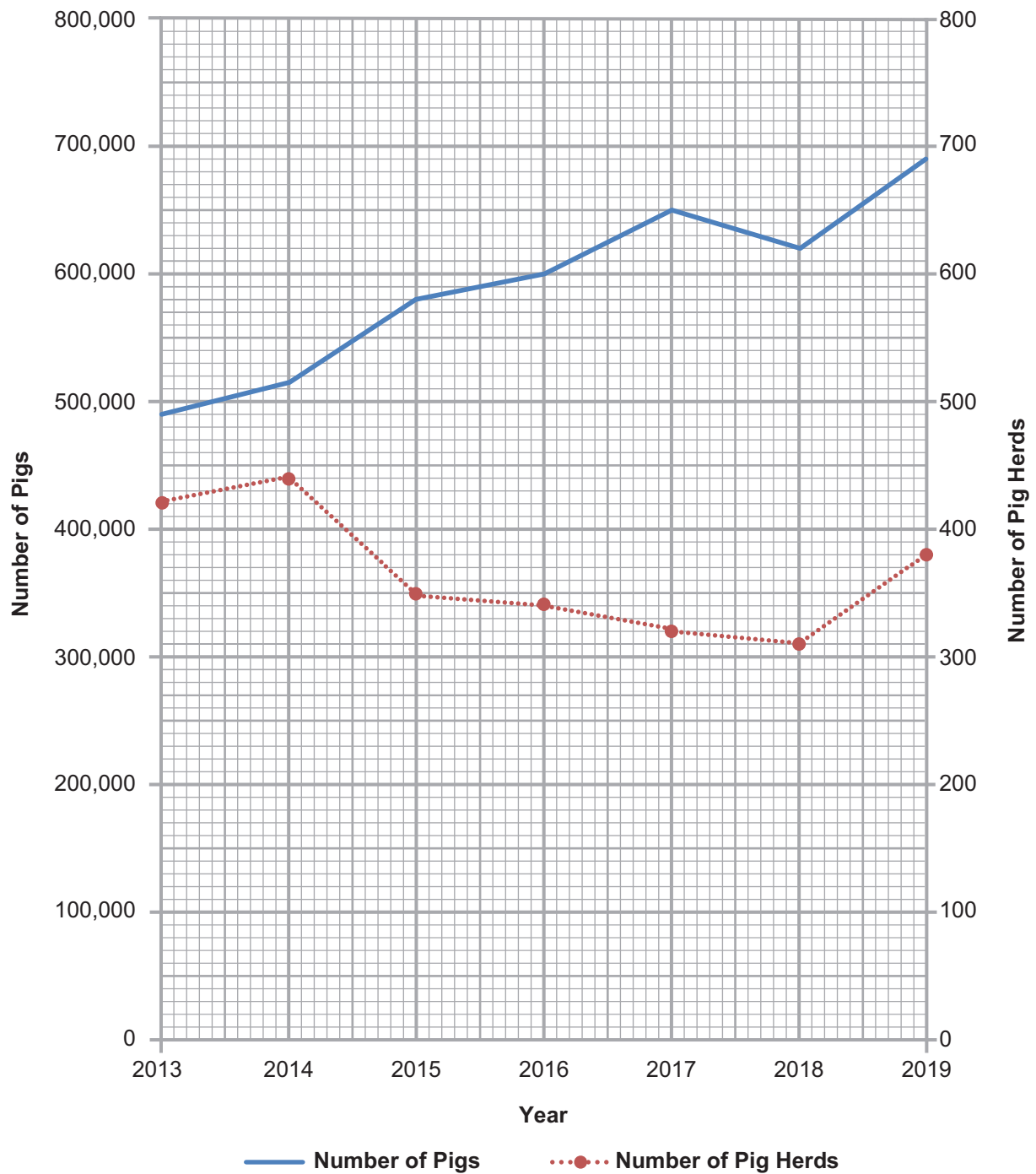
**[Turn over**

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\*24GAU2109\*

- 5 The pig industry is an important part of Northern Ireland's agricultural economy. The graph shows how the Number of Pigs and the Number of Pig Herds has changed in Northern Ireland in recent years.



Source: Chief Examiner

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\*24GAU2110\*



(b) A **birth to bacon** system is where all the piglets are kept on the same farm from birth until they are ready to go to the abattoir.

A **pig fattening** system is where **weaned** piglets are brought in at about 10 weeks old and then kept until they are ready to go to the abattoir.

(i) Circle the **average** number of piglets a commercial sow would have in each litter.

4

12

28

[1]

(ii) What do you understand by the term '**weaned**' piglets?

[1]

(iii) Using your knowledge and the information above, suggest **one** advantage and **one** disadvantage of running a **pig fattening** system.

[2]





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**[Turn over**



\*24GAU2113\*

6 For animals to thrive, it is important that farmers ensure that animal housing has features which allow the basic freedoms of farm animals to be met.



Source: © Getty Images

Describe **four** features shown in the photograph that allow the basic freedoms of farm animals to be met and how each feature benefits the **animals**.

An example has been completed for you.

**Feature:** \_\_\_\_\_ *No sharp edges*

**Benefit to the animals:** \_\_\_\_\_ *Reduces the chance of injuries*

**Feature:** \_\_\_\_\_

**Benefit to the animals:** \_\_\_\_\_

**Feature:** \_\_\_\_\_

**Benefit to the animals:** \_\_\_\_\_



**Feature:** \_\_\_\_\_

**Benefit to the animals:** \_\_\_\_\_

**Feature:** \_\_\_\_\_

**Benefit to the animals:** \_\_\_\_\_

[8]

[Turn over

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\*24GAU2115\*

7 A dairy farmer wants to reduce labour costs and is installing robotic milkers on her 300 dairy cow unit.

(a) (i) Describe **two** ways the robotic milkers can prevent mastitis from occurring.

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[2]

(ii) Suggest **two** disadvantages of having robotic milkers.

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[2]

(b) The dairy farmer has always used natural fertilisation on her cows but is now considering using artificial insemination (AI). If you were a farm advisor, what information would you give her and why?

In your answer you should include:

- at least **three** advantages of using AI
- at least **three** disadvantages of using AI
- at least **one** method to ensure the cows are ready for AI

**In this question you will be assessed on your written communication skills including the use of specialist terms.**

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[9]

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<b>For Examiner's use only</b>	
<b>Question Number</b>	<b>Marks</b>
1	
2	
3	
4	
5	
6	
7	
8	
9	
<b>Total Marks</b>	

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