



Rewarding Learning

General Certificate of Secondary Education
2017

Centre Number

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Candidate Number

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Agriculture and Land Use

Unit 2
Animals on the Land



GAL21

[GAL21]

WEDNESDAY 7 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.

Write your answers in the spaces provided in this question paper.
Answer **all nine** questions.

INFORMATION FOR CANDIDATES

The total mark for this paper is 75.

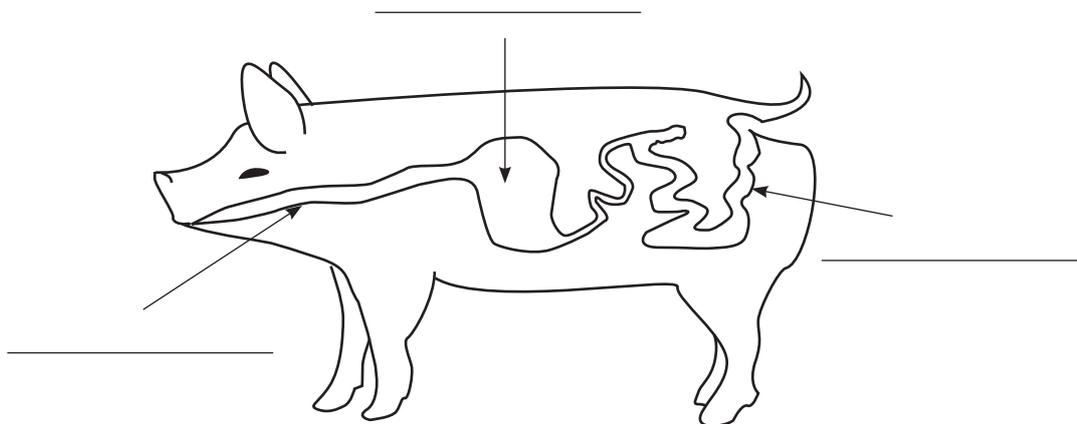
Figures in brackets printed down the right-hand side of pages indicate the marks awarded to each question or part question.

Quality of written communication will be assessed in Questions **6(b)** and **9**.

For Examiner's use only	
Question Number	Marks
1	
2	
3	
4	
5	
6	
7	
8	
9	

Total Marks	
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1 The diagram below shows parts of a pig's digestive tract.



Examiner Only	
Marks	Remark

(a) Label the parts of the pig's digestive tract using the words below.

stomach large intestine oesophagus

[3]

(b) State the function of the following parts:

Stomach _____

Large intestine _____

_____ [2]

(c) (i) Name **one** part of the pig's digestive tract also found in the avian digestive tract.

_____ [1]

(ii) Name **one** part found only in the avian digestive tract.

_____ [1]

2 The graph below shows the average lambing percentage over the lifetime of a ewe.



Source: Principal Examiner

(a) At what age is the ewe most fertile?

_____ [1]

(b) At what age is the ewe profitable?

From age _____ to _____ years [1]

(c) Suggest **one** reason why the ewe becomes less profitable as she gets older.

 _____ [1]

Examiner Only	
Marks	Remark

3 (a) Complete the sentences below about pneumonia in pigs.

Fill in the spaces using the words from the box below.

heart	lungs	anaemia
sore feet	laboured breathing	
antibiotics	concentrates	

Pneumonia affects the _____ of the pig. A symptom of pneumonia is _____ .

_____ are used to treat pneumonia. [3]

(b) Salmonella is a disease that occurs in chickens.

(i) Give **two** symptoms of salmonella in chickens.

1. _____

2. _____ [2]

(ii) State **two** biosecurity measures to prevent salmonella in chickens.

1. _____

2. _____ [2]

(iii) A common disease of dairy cows is mastitis.

State **one** way to treat this disease.

_____ [1]

Examiner Only	
Marks	Remark

(c) Good animal welfare helps reduce animal disease levels.

There are five basic freedoms of farm animals.

Tick the **two** correct statements in the boxes below.

Freedom from hunger and thirst	
Freedom from bright light	
Freedom from pain, injury and disease	
Freedom from wild animals	
Freedom from force feeding	

[2]

Examiner Only	
Marks	Remark

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(Questions continue overleaf)

5 (a) Feed is one of the main costs of keeping animals.

State **two** other costs of keeping suckler cows.

1. _____

2. _____

[2]

(b) (i) The table below shows the average feed intake of a dairy cow on a production ration.

Feed type	Daily food intake (kg)	Dry matter percentage	Dry matter intake (kg)
Fresh grass	75	18 %	
Concentrated meal	6	85 %	
		Total DMI (kg)	

Use the information in the table to calculate the cow's total daily Dry matter intake (DMI).

Show your working. Write your answers in the shaded boxes in the table above.

[3]

(ii) What would happen to the total DMI if the dairy cow was placed on a maintenance ration?

_____ [1]

Examiner Only	
Marks	Remark

- (c) (i) Explain why the following feed sources are important to meet the dietary requirements of sheep.

Forage _____
 _____ [2]

Concentrates _____
 _____ [2]

- (ii) State **two** factors that affect the nutritional requirements of animals.

1. _____
 2. _____ [2]

- (iii) Concentrate feed has to be correctly stored. Suggest **two** features of a poorly stored feed sample.

1. _____
 2. _____ [2]

Examiner Only	
Marks	Remark

7 Food has to be processed before it can be sold in the supermarket.

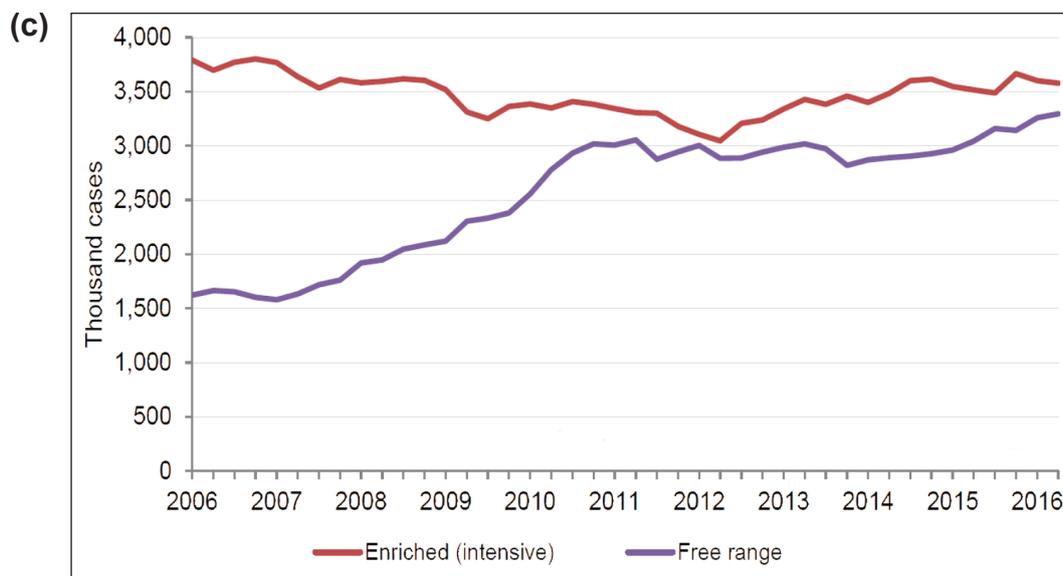
(a) State **three** ways that eggs are prepared for sale.

1. _____
2. _____
3. _____ [3]

(b) Consumers often choose food based on price.

Name **two** other factors that influence consumers when purchasing food.

1. _____
2. _____ [2]



Adapted from United Kingdom Egg Statistics – Quarter 2, 2016 by Department for Environment Food & Rural Affairs (DEFRA)
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(i) The graph above shows the trends in intensive and free range egg production.

Describe the trend in free range production.

_____ [1]

(ii) Suggest a reason for this trend.

_____ [1]

Examiner Only	
Marks	Remark

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