OCR
RECOGNISING ACHIEVEMENT

H

B495/02

GENERAL CERTIFICATE OF SECONDARY EDUCATION

ENVIRONMENTAL AND LAND-BASED SCIENCE

Livestock Husbandry (Higher Tier)

MONDAY 23 JUNE 2008

Morning
Time: 45 minutes

Candidates answer on the question paper
Additional materials (enclosed): None

Additional materials (required):
Electronic calculator
Pencil
Ruler (cm/mm)

CUP/T52675

Candidate Forename		Candidate Surname	
Centre Number		Candidate Number	

INSTRUCTIONS TO CANDIDATES

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided.
- There are no separate marks for the quality of written communication, but make sure that your answers are written in clear and well-structured English.

INFORMATION FOR CANDIDATES

- The number of marks for each question is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **36**.

FOR EXAMINER'S USE		
		Mark
TOTAL	**36**	

This document consists of **14** printed pages and **2** blank pages.

[Turn over

Answer **all** the questions.

1 The photograph shows a new animal house.

M Wedgwood / © OCR

Good animal housing is essential if livestock are to remain healthy.

List **three** features of good animal housing.

1 .....

2 .....

3 .....[3]

2 The photograph shows a farmer working at the computer.

M Wedgwood / © OCR

Profitable dairy farming requires dealing with a large volume of data.

The use of computers is the most efficient way to maintain these records.

Suggest **three** pieces of information the dairy farmer might record for individual cows.

1 .....

2 .....

3 .....[3]

3 For each food characteristic below, choose a food type from the list that meets that description.

food types

A concentrate

B roughage

C succulent

food characteristics

high fibre Answer **A**, **B** or **C** .....

high nutrient Answer **A**, **B** or **C** .....

high moisture Answer **A**, **B** or **C** ..... [3]

4 The photograph shows a Hereford cow.

M Wedgwood / © OCR

Most Hereford cattle are polled.

This means they never develop horns.

Selective breeding has been used to produce this.

Why might having cattle without horns be an advantage to the farmer?

.....

.....[1]

5 The photographs show a bull with horns and a cow with no horns.

M Wedgwood / © OCR

bull with horns

M Wedgwood / © OCR

cow with no horns

(a) A bull **with** horns was crossed with a cow that had been born **without** horns.

Over many years all the calves born to **this** cross were born without horns.

Use your understanding of genetics to explain why this happened.

.....

.....

.....

.....[2]

(b) The calves born in the first generation (F1) were crossed.

What proportion of this second generation would be born **with** horns?
You may use the diagram below to help you.

F1 generation – Pp

	P	p
P		
p		

A all of them

B 1:2

C none of them

D 1:4

Answer **A**, **B**, **C** or **D** .....[1]

6 The photograph shows an animal which is infested with ringworm – a fungal parasite.

M Wedgwood / © OCR

Describe **two** ways you might know an animal is suffering from parasites.

1 .....

.....

2 .....

.....[2]

7 Farmers need to prevent their animals becoming infested with parasites.

Describe **two** methods a farmer could use to prevent the stock becoming infested with parasites.

1 .....

.....

2 .....

.....[2]

8 The photograph shows a cow being milked.

M Wedgwood / © OCR

Each cow is given an extra feed of concentrates whilst being milked.

(a) Suggest **two** reasons for this.

reason 1 .....

.....

reason 2 .....

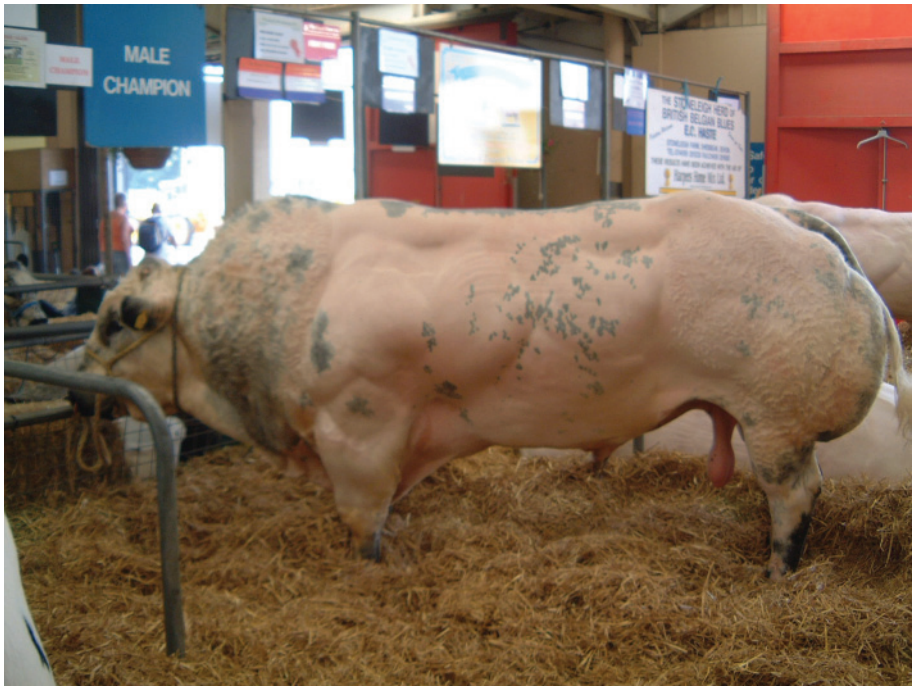
.....[2]

(b) Suggest why some cows may be given more feed than others.

.....

.....[1]

9 The photograph shows a modern breed of cattle.



M Wedgwood / © OCR

Modern breeds put on weight much quicker than traditional breeds.

What name is given to the process used for producing these modern breeds?

A random breeding

B selective breeding

C monoculture

D intensive production

Answer **A**, **B**, **C** or **D** .....[1]

10 The photograph shows some piglets.

M Wedgwood / © OCR

Crossing two pure breeds produced these piglets.

They grew better than purebred pigs.

What term is used to describe this?

A hybridisation

B hybrid vigour

C a mongrel

D a recessive cross

Answer **A**, **B**, **C** or **D** .....[1]

11 The photograph shows an intensive pig unit.

M Wedgwood / © OCR

Suggest **two** advantages and **two** disadvantages of **intensive** animal production systems.

advantage 1 .....

.....

advantage 2 .....

.....

disadvantage 1 .....

.....

disadvantage 2 .....

.....[4]

12 The photograph shows a young calf.

M Wedgwood / © OCR

It is now a legal requirement that calves remain with their mothers for at least 10 days.

Suggest **two** reasons why this is a good idea for the welfare of the calf.

reason 1 .....

.....

reason 2 .....

.....[2]

13 The photograph shows a poorly maintained animal house.

M Wedgwood / © OCR

Poor housing can lead to ill health in the stock housed there.

Describe the possible consequences for the health of calves kept in poor conditions.

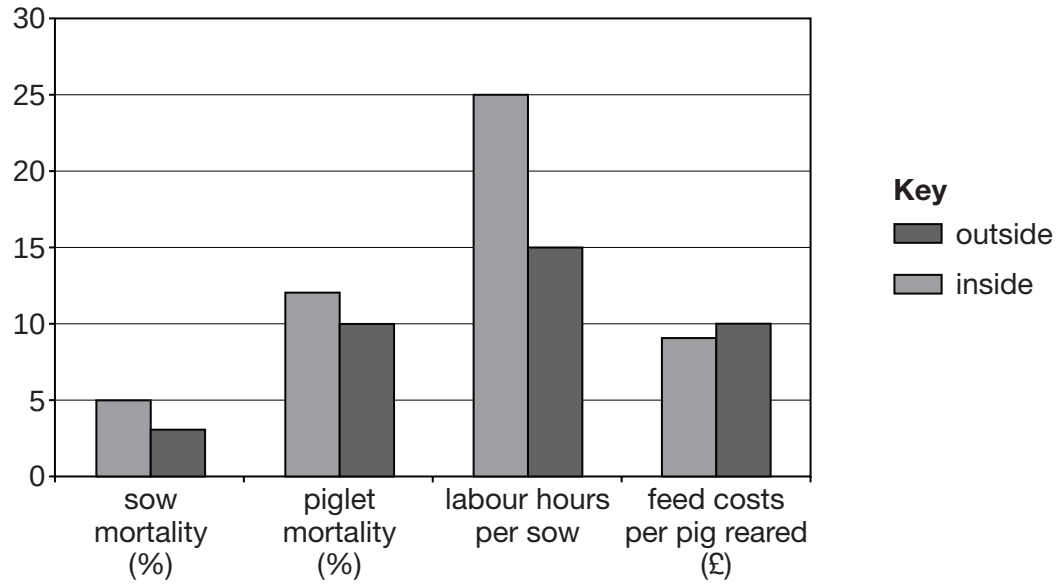
.....

.....

.....

.....[2]

14 The bar chart shows some effects of rearing pigs inside and outside.



(a) What evidence is there in the bar chart to support the argument that rearing pigs inside is not as good for animal welfare as outside production?

.....

.....

.....

.....[2]

(b) Suggest a possible explanation for the differences between inside and outside production for the following.

sow mortality .....

.....

piglet mortality .....

.....

labour hours .....

.....

feed costs .....

.....[4]

END OF QUESTION PAPER

BLANK PAGE

PLEASE DO NOT WRITE ON THIS PAGE

BLANK PAGE

PLEASE DO NOT WRITE ON THIS PAGE

PLEASE DO NOT WRITE ON THIS PAGE