

GENERAL CERTIFICATE OF SECONDARY EDUCATION
ENVIRONMENTAL AND LAND-BASED SCIENCE
Livestock Husbandry (Foundation Tier)

B495/01

Candidates answer on the Question Paper

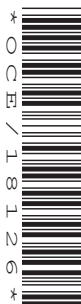
OCR Supplied Materials:
None

Other Materials Required:

- Electronic calculator
- Pencil
- Ruler (cm/mm)

Friday 28 May 2010
Morning

Duration: 45 minutes



Candidate Forename		Candidate Surname	
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Centre Number						Candidate Number				
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INSTRUCTIONS TO CANDIDATES

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use 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. Additional paper may be used if necessary but you must clearly show your Candidate Number, Centre Number and question number(s).

INFORMATION FOR CANDIDATES

- The number of marks is given in brackets [] at the end of each question or part question.
- The total number of marks for this paper is **36**.
- This document consists of **16** pages. Any blank pages are indicated.

Answer **all** the questions.

1 **A**



B



C



D



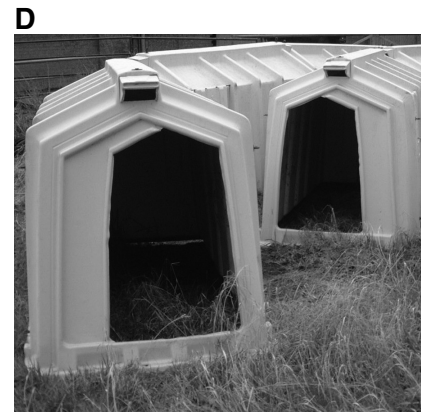
Which one of the sheep shown in the photographs is a male?

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

2



3



Which of these animal houses is **NOT** suitable for rearing calves?

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

3 Healthy animals need good housing.

Choose the best words from the list below to complete the following sentences.

dry

food

illuminated

insulated

straw

tidy

ventilated

warm

water

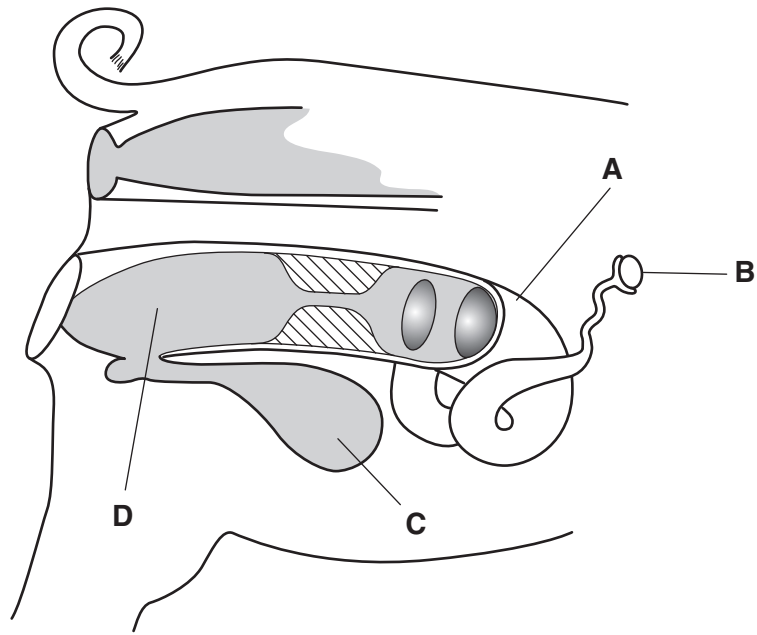
Animal houses need to be free from draughts but well

Disease can be reduced by keeping the house clean and

As well as bedding, a constant supply of clean fresh should always be available.

[3]

4 The diagram shows the reproductive system of a pig.



(a) Which part is the uterus?

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

(b) What is the function (job) of the uterus?

.....
..... [1]

5 Farmers need to understand about breeding animals.

What name is given to a first generation cross between two different pure breed animals?

- A cross-breed
- B dominant
- C F₁
- D F₂

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

6 The photograph shows a concentrate feed.



Which of the following describes a concentrate food?

- A has a high fibre content
- B has a high nutrient content
- C is always fed fresh
- D is diluted before feeding

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

7 This animal is eating well but is losing weight.



(a) In the list below, put a **ring** around the correct cause to finish the following sentence.

bacterial disease

fungal disease

parasites

viruses

The animal might be suffering from [1]

(b) Give **two** reasons why it is important to keep farm animals healthy.

1
.....

2
..... [2]

8 Sexual reproduction involves sperm and an ovum.

This is a picture of a sperm and an ovum.



What is the difference between **insemination** and **fertilisation**?

.....

.....

.....

..... [2]

9 Many people think extensive production systems are better for animal welfare.

In the list below put **(rings)** around **two** features of an extensive animal production unit.

- animals housed indoors**
- animals housed outdoors**
- animals spread out over a wide area**
- many animals in a small area**
- low mechanisation**
- high mechanisation**

[2]

10 There are many possible hazards on the farm and when handling animals.



(a) Salmonella is a hazard which can be caught from handling animals.

Suggest **one** way of reducing this hazard.

..... [1]

(b) Another hazard is hurting your back lifting bales of hay.



Suggest how you would lift a bale of hay to reduce the hazard.

..... [1]

(c) Foot damage from heavy animals standing on the foot is a hazard.



Suggest **one** way of reducing this hazard.

..... [1]

(d) Young children playing on a farm is a hazard.



Suggest **one** way of reducing this hazard.

.....

..... [1]

11 This photograph shows sheep in upland pasture.



Why is **hardiness** important in upland sheep breeds?

.....

.....

..... [2]

12 The table shows a number of ways of treating problems caused by parasites in sheep.

problem	dipping	pour on	injection
sheep scab	Yes	No	Yes
lice	Yes	Yes	No
blow fly	Yes	Yes	No
ticks	Yes	Yes	No

(a) Which is the only treatment suitable for all parasites?

..... [1]

(b) Which problem can be controlled by injection?

..... [1]

- 13 There are two systems for rearing calves.
They are called **autumn calving** and **spring calving**.

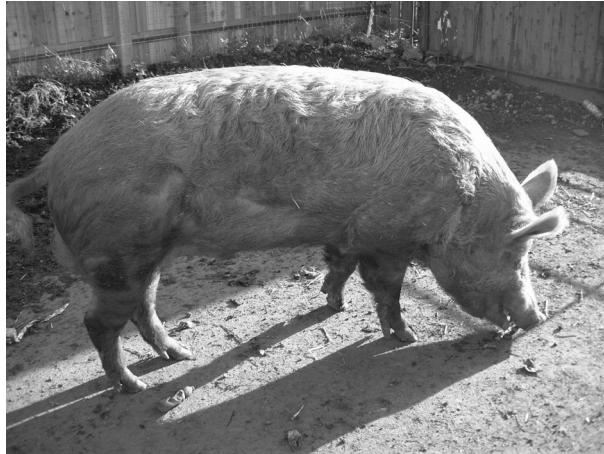
Look at the tables below.

	autumn calving	spring calving
output	£ per calf	£ per calf
calves produced	496	527
less cow and bull depreciation	46	(b)
total income	450	485

costs		
concentrates	74	90
bulk feed	30	21
vet bills	37	35
bedding	48	48
commission, haulage, tags etc	37	38
forage	150	145
total costs	(a)	377
profit per calf	£74	(c)

- (a) What is the total cost for autumn-reared calves?
..... [1]
- (b) What was the depreciation on the cows and bulls for spring-reared calves?
..... [1]
- (c) How much profit was made by the spring-reared calves?
..... [1]
- (d) How much greater is the total **feed** costs for spring calving than for autumn calving?
..... [1]

14 A group of students wanted to carry out an experiment to see if pigs grew better if kept indoors or outside.



They kept their female pig inside a building and their male pig outside.

They weighed each of the pigs at the start and the end of the experiment to see which had put on most weight.

How could they have improved the experiment?

.....

.....

.....

.....

.....

.....

..... [4]

15 There are many breeds of cattle in the UK.



(a) Name and describe the characteristics of one **dairy** breed you have studied.

.....
.....
.....
..... [2]

(b) Name and describe the characteristics of one **beef** breed you have studied.

.....
.....
.....
..... [2]

END OF QUESTION PAPER

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