

**GENERAL CERTIFICATE OF SECONDARY EDUCATION
ENVIRONMENTAL AND LAND-BASED SCIENCE**

B495/01

Livestock Husbandry
(Foundation Tier)

**Tuesday 27 January 2009
Afternoon**

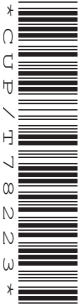
Duration: 45 minutes

Candidates answer on the question paper
A calculator may be used for this paper

OCR Supplied Materials:
None

Other Materials Required:

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



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 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, however additional paper may be used if necessary.

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 **20** pages. Any blank pages are indicated.

FOR EXAMINER'S USE		
		Mark
TOTAL	36	

Answer **all** the questions.

1

A



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B



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C



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D

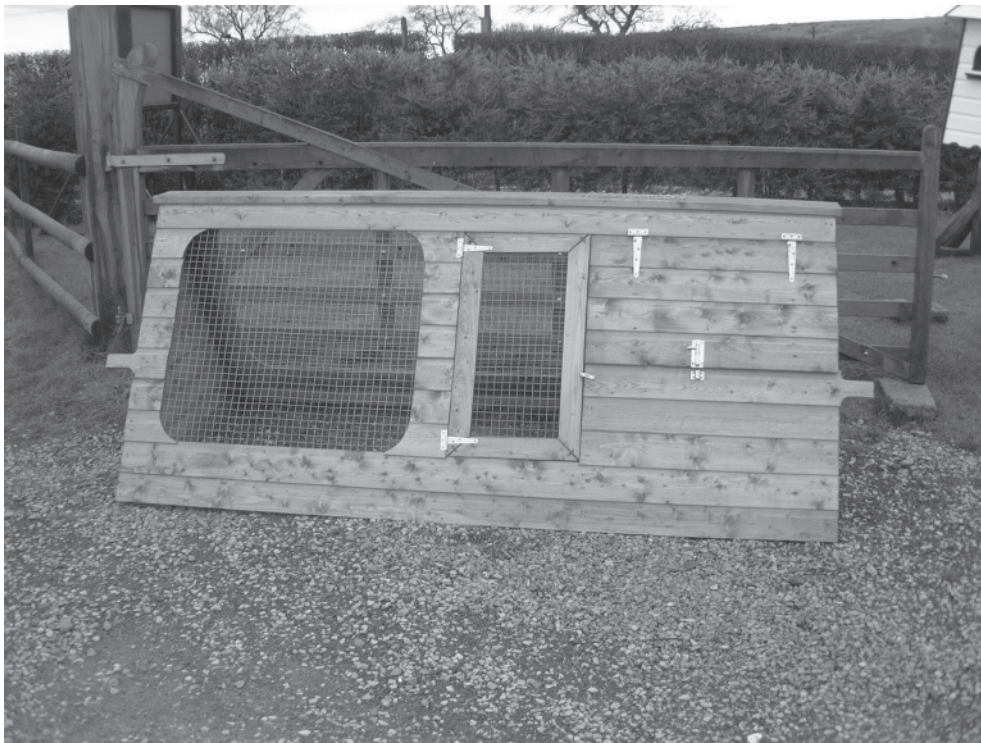


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Which **one** of the cattle shown in the photographs is a male?

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

2 The photograph shows housing suitable for a type of animal.



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Which type of animal could be kept in this house?

- A calves
- B hens
- C lambs
- D pigs

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

3 This animal has been bred for showing.



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Animals can be bred for conformation, disease resistance, hardiness and yield.

Which **one** of these would be most important in an animal bred for showing?

- A conformation
- B disease resistance
- C hardiness
- D yield

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

4 This animal is a purebred type of sheep.



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Purebred animals of different breeds are sometimes crossed to produce a hybrid animal.

(a) Which one of the following is **not** going to be improved by this cross?

- A breed-type
- B disease resistance
- C hardiness
- D yield

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

Breeders need to keep detailed records of the animals they breed.

(b) Suggest one way of efficiently recording this information.

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

5 Cattle have 60 chromosomes in their body cells.

How many chromosomes would they have in their sex cells (gametes)?

- A 15
- B 30
- C 60
- D 120

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

6 The photograph shows a student incorrectly trying to lift a box.



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Which of the following is the **correct** way to lift the box?

- A legs and back bent
- B legs bent and back straight
- C legs straight and back bent
- D legs and back straight

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

7 You can catch diseases from handling animals.

You handle some animals and don't wash your hands before eating.

Which disease could you catch?

- A Foot and Mouth
- B Salmonella
- C TB
- D Tetanus

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

8 Embryo transfer is the removal of embryos from one animal to another of the same species.

Embryo transfer is sometimes used as a means of importing cattle from distant countries.

Which one of the following is **not** a reason for using embryo transfer to import cattle?

- A It is better for animal welfare than transporting adult animals.
- B It is cheaper than importing adult animals.
- C It is an easy process to carry out on the farm.
- D It is less likely to bring in diseases.

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



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A free range chickens



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B indoor reared cattle



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C outdoor reared pigs



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D sheep on upland pasture

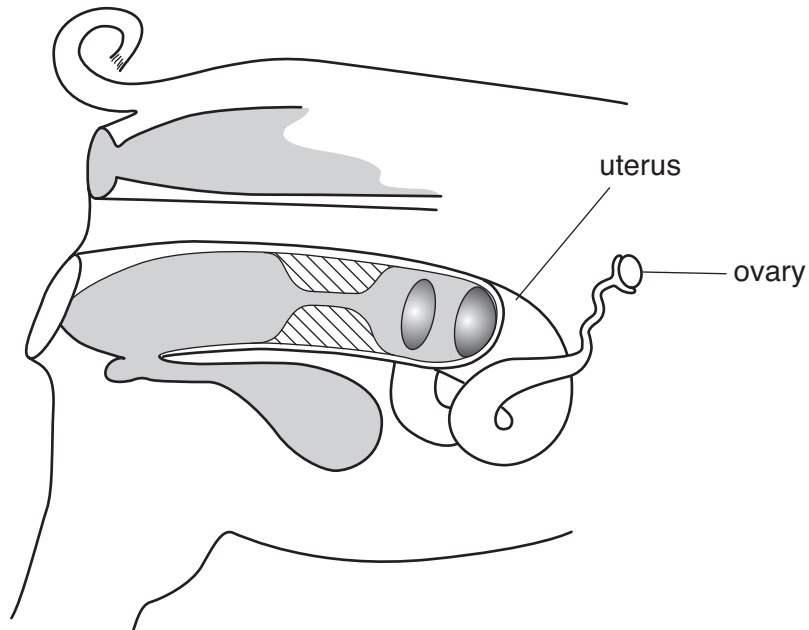
Which one of the photographs show **intensive** animal production?

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

10 The diagram below shows the reproductive system of a farm animal.

Put an **X** on the diagram where eggs are formed.

Make sure the **X** can be clearly seen.



[1]

11 The photograph shows an example of good animal housing.



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Good animal housing should provide a supply of food and water and a suitable environment.

Describe what is meant by a **suitable environment** to keep animals healthy.

What else would you need to provide to keep animals healthy?

.....

.....

.....

..... [3]

12 The picture shows a farmer and a vet with a newly born litter of pigs.



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The farmer or vet sometimes has to help with the birth of animals.

Suggest **one** reason why an animal might have problems giving birth without help.

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

13 It is important that a farmer recognises when his livestock are unwell.

Poor condition is often a sign that the animal is unwell.

Give **two** signs of poor condition in an animal.

1

.....

2

..... [2]

14 The photograph shows a large animal being moved.



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Why should you wear steel toe-capped boots when working with large animals?

.....

..... [1]

15 Name a breed of cattle you have studied.

Give three characteristics of that breed.

breed studied

characteristic 1

.....

characteristic 2

.....

characteristic 3

..... [3]

16 A farmer needs to know when his animals are coming onto heat (are in season).

Choose a farm animal and give two signs that it is coming onto heat.

farm animal

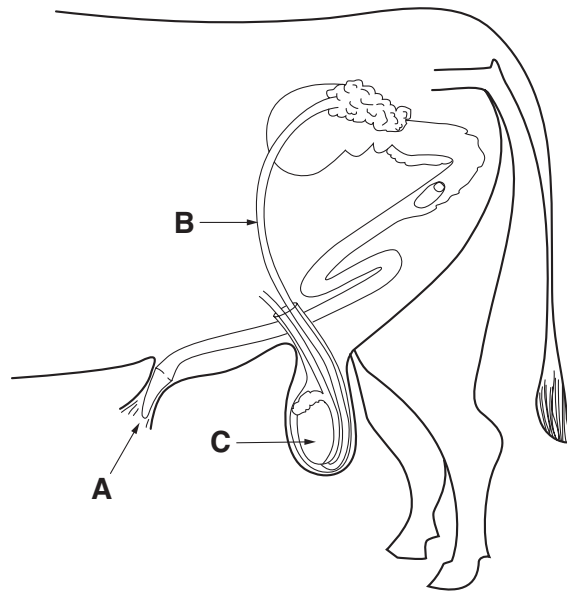
sign 1

.....

sign 2

..... [2]

17 This diagram shows the reproductive system of an animal.



Name the parts **A**, **B** and **C**.

For each part give a function.

A name

function

B name

function

C name

function [3]

18 The picture shows a large male animal.



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You are asked to approach a large animal.

The animal is facing away from you and has not seen you.

Describe how you should approach the animal.

.....

.....

.....

..... [3]

19 Picture **A** shows a cow and her two calves.

A



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Picture **B** shows a large male animal.

B



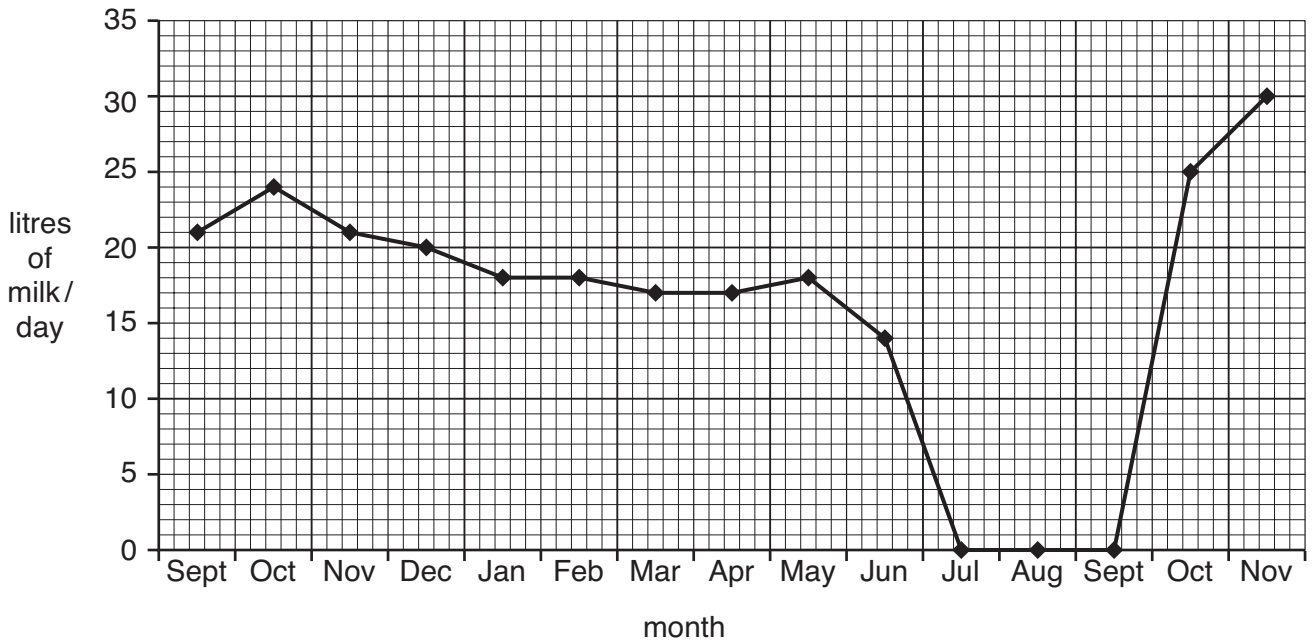
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Why is approaching the animals in picture **A** possibly more dangerous?

.....

..... [2]

20 The graph shows the milk production of a dairy cow over a year.



(a) What was the yield of this cow in December?

.....litres of milk/day [1]

(b) In which month did the cow reach maximum production?

..... [1]

(c) For how long was the cow dry (producing no milk)?

..... months [1]

21 The table shows the amounts of milk fed to calves at different ages.

calf age in days	milk in litres		management
	am	pm	
0–4	colostrum	colostrum	offer fresh dry feed and fresh drinking water
5	1.0	1.0	
6	1.25	1.25	
7	1.5	1.5	
8	1.75	1.75	
9	1.75	1.75	offer good straw or hay
10–25	2.0	2.0	
26–39	1.75	1.75	
40	1.5	1.5	wean according to condition
41	1.0	1.0	
42	0.5	0.5	

(a) How much milk was given at each feed when the calf was 7 days old?

.....litres [1]

(b) How old was the calf when straw or hay was first given?

..... days [1]

END OF QUESTION PAPER

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