

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 27 May 2011
Morning

Duration: 45 minutes



Candidate forename		Candidate surname	
-----------------------	--	----------------------	--

Centre number						Candidate number				
---------------	--	--	--	--	--	------------------	--	--	--	--

INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- 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).
- Answer **all** the questions.
- Do **not** write in the bar codes.

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



The main purpose of good husbandry is to

- A keep animals healthy
- B make as much profit as possible
- C make the animals grow quickly
- D reduce costs as much as possible

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

2 The photographs show different systems of rearing animals.



Decide if each photograph shows an extensive or intensive system.

Write the correct word from the list in the box below **each** photograph.

Each word can be used once, more than once, or not at all.

extensive

intensive

[2]

3 This student needs to move a box.



How should the student lift the box correctly?

Put ticks (✓) in the boxes next to the **three** correct answers.

knees bent

knees straight

back bent

back straight

use leg muscles to lift

use back muscles to lift

[2]

4 The photographs show some houses for keeping animals.



Which of the following houses is **not** suitable for keeping pigs?

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

5 Male and female animals have different reproductive systems.

female animal	male animal

For each of the following decide if it belongs to a male or female animal.

Write each word in the correct column in the table.

egg

ovary

penis

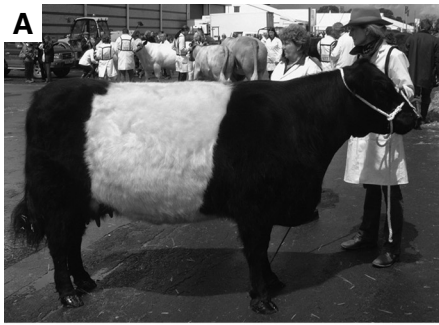
sperm

testis

vagina

[3]

6 The photographs show four different breeds of cattle.



Which one of the cows shown in the picture is a modern dairy breed?

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

7 The picture shows a stag (male) turkey.



Give **three** signs which show that this is a healthy animal.

- 1
- 2
- 3 [3]

8 For a farm animal that you have studied, give **three** signs that show that the animal is on heat (ready to mate).

animal

signs of heat

1

2

3 [3]

9 The picture shows a cow bred many years ago.



Selective breeding has been used to improve cattle over many years.

It has been bred to produce more milk or more meat.

Suggest **two** other features of cattle that have been improved through breeding.

1

2 [2]

10 The photograph shows a student checking pigs while they are feeding.



(a) How does using the board make approaching the pig safer for the student?

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

(b) Why is it safer to check the animal while it is feeding?

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

(c) Suggest **one** other way to make approaching a large animal safer.

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

11 The photographs show a litter of pigs and a bag of their feed.



The bag contains 25 kg of pig pellets.

- (a) The farmer has 5 piglets.
They each eat 2 kg of pellets a day.
How long will the bag last?

..... days [1]

- (b) It takes 125 kg to feed each pig to pork weight.
How many bags will the farmer need to feed each pig?

..... bags [1]

- (c) Pigs need to eat pellets.
Suggest **one** other thing pigs need in their diet.

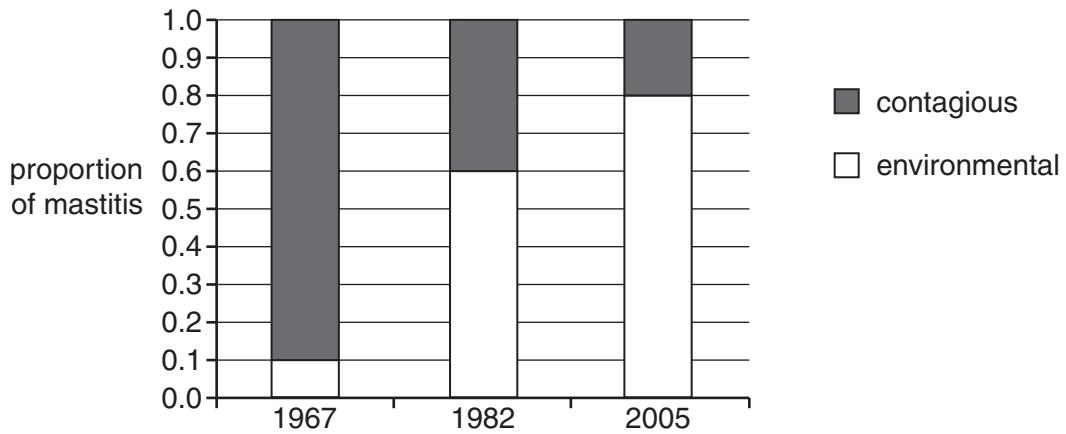
..... [1]

12 Mastitis is a bacterial disease infecting the udders of cows.

Mastitis can be caught from:

- other cattle – **contagious** mastitis
- dirty wet bedding and a dirty environment – **environmental** mastitis.

The graph shows the percentage of these two types of mastitis in the years 1967, 1982 and 2005.



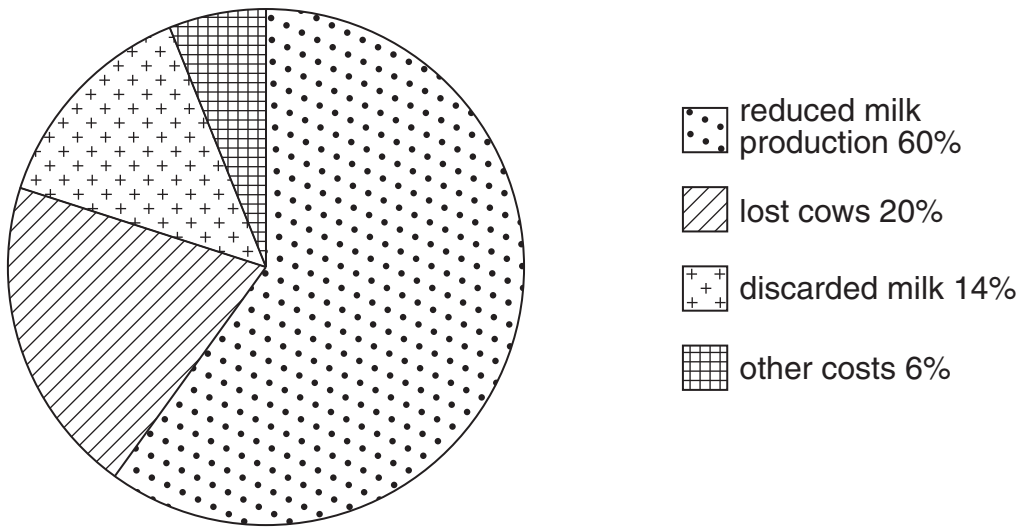
(a) What percentage of cattle had **contagious** mastitis in 1967?

..... [1]

(b) Use the graph to describe the changes in these two types of mastitis.

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

13 The chart shows the total losses caused by mastitis on a typical dairy farm.



(a) How much milk is lost as a result of mastitis?

..... % [1]

(b) For a typical dairy farm the average financial cost of mastitis is £150 000 per year.

Calculate the cost to the farmer of the lost cows.

£ [1]

14 Contagious mastitis is passed from cow-to-cow usually during milking.



How could the farmer reduce the risk of **contagious** mastitis?

.....

.....

.....

..... [2]

15 The picture shows a meat-chicken and egg-layer side-by-side.



A student wanted to answer this question:

“Do meat-chickens grow faster than egg-layers?”

Design an investigation to test this question.

Describe what the student would have to do.

.....

.....

.....

.....

.....

.....

..... [4]

16 Here is a photograph of some piglets.



Explain the difference between an animal's genotype and its phenotype.

.....

.....

.....

..... [2]

END OF QUESTION PAPER

Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact the Copyright Team, First Floor, 9 Hills Road, Cambridge CB2 1GE.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.