

Candidate forename						Candidate surname					
Centre number						Candidate number					

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GCSE

B495/03

**ENVIRONMENTAL AND
LAND-BASED SCIENCE**

Livestock Husbandry (Foundation Tier)

THURSDAY 24 MAY 2012: Morning

**DURATION: 45 minutes
plus your additional time allowance**

MODIFIED ENLARGED

Candidates answer on the Question Paper.

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

Electronic calculator

Pencil

Ruler (cm/mm)

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

- **Write your name, centre number and candidate number in the boxes on the first page. Please write clearly and in capital letters.**
- **Use black ink. HB pencil may be used for graphs and diagrams only.**
- **Answer ALL the questions.**
- **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).**

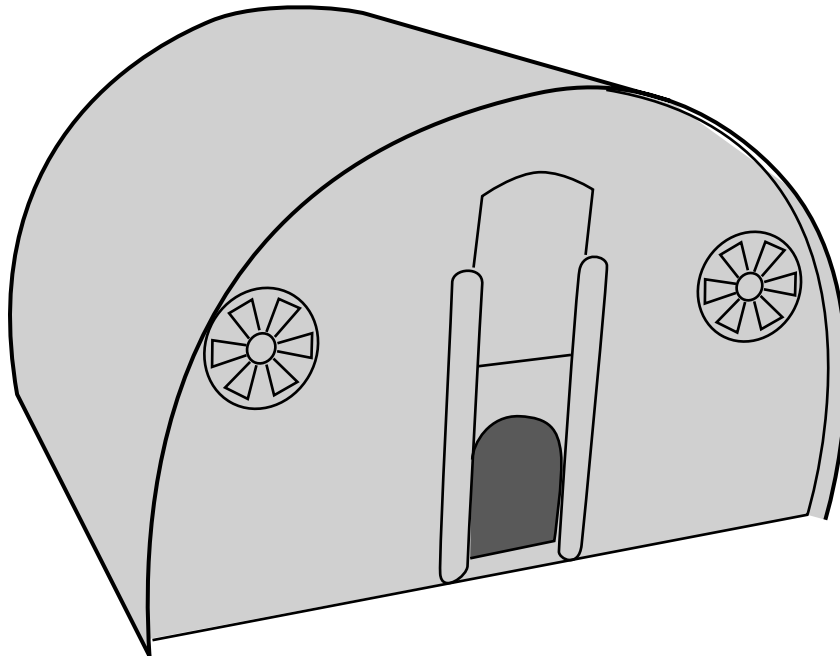
INFORMATION FOR CANDIDATES

- **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.**

BLANK PAGE

Answer ALL the questions.

- 1 The diagram shows an animal pen. This pen is made of recycled plastic.**



(a) For which animal is this type of pen suitable?

- A cattle**
- B hens**
- C goats**
- D sheep**

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

(b) Suggest TWO advantages, other than cost, of using this material compared with wood.

1 _____

2 _____

_____ **[2]**

2 Some students are looking at a prize winning dairy cow.

What characteristics of the cow tell the students that the cow is a dairy breed rather than a beef breed?

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

black and white colour

☐

bony lean frame

☐

large udder

☐

no horns

☐

rounded muscular frame

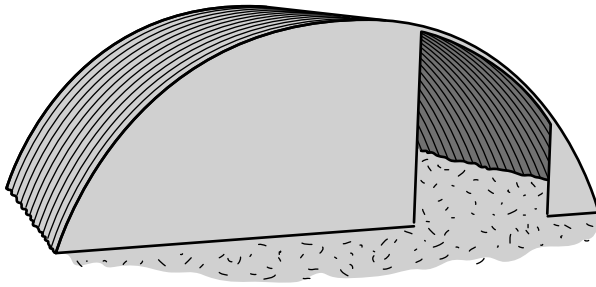
☐

small udder

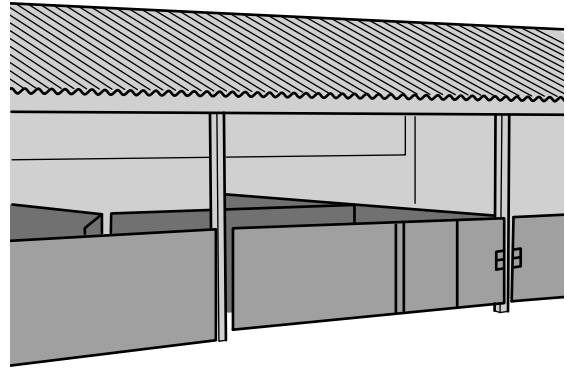
☐

[2]

- 3 These two diagrams show suitable housing for pigs and for cattle.**



housing for pigs



housing for cattle

The housing meets their needs.

Give TWO features of the housing of pigs and cattle which are the same and ONE feature which is different.

THE SAME

1 _____

2 _____

DIFFERENT

1 _____ **[3]**

4 A pig farmer keeps his pigs in free range pig units.

Which feature is a farmer MOST LIKELY to choose when considering a breed for keeping in a free range pig unit?

A conformation

B disease resistance

C hardiness

D yield

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

5 Many livestock are fed a mixture of bulk and concentrate feeds.

Name one example of a bulk feed and one example of a concentrate feed.

BULK FEED _____

CONCENTRATE FEED _____ [2]

- 6 (a) A farmer crossed pure bred black sheep with pure bred white sheep.**

All the lambs born were white.

What does this tell you about the genetics of colour in this breed of sheep?

_____ [1]

- (b) What genetic term is given to the white lambs produced in this cross?**

_____ [1]

- 7 Health problems in livestock can be caused by organisms such as parasites, fungi, bacteria and viruses.

Draw lines to connect each DISEASE CAUSING ORGANISM to a HEALTH PROBLEM.

**DISEASE
CAUSING
ORGANISM**

**HEALTH
PROBLEM**

parasites

foot and mouth

fungi

mastitis

bacteria

ringworm

viruses

roundworm

[3]

- 8 (a) Working with animals can cause ill health in humans.**

Which ONE of the following conditions in animals can cause food poisoning IN HUMANS?

A mastitis

B tuberculosis (TB)

C tetanus

D salmonella

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

- (b) Suggest TWO ways a farmer could reduce the chances of getting food poisoning from contact with his animals.**

1 _____

2 _____ [2]

9 This question is about reproduction in mammals.

Choose the correct terms from this list to complete the sentences below.

FERTILISED

OVARY

OVIDUCT

UTERUS

VAGINA

**Eggs are formed in the _____
and released into the _____ .**

**If the eggs meet sperm here, they can be
_____ before becoming**

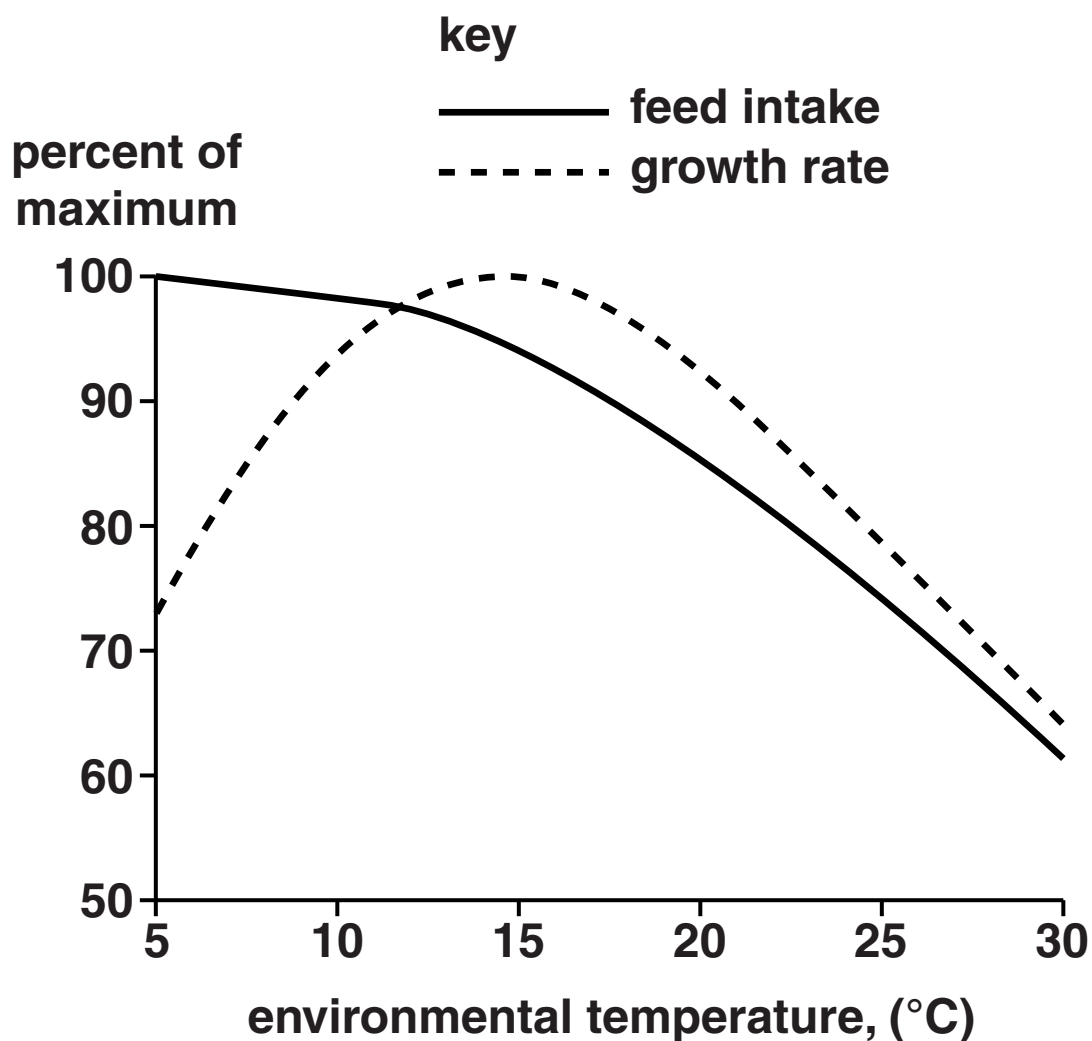
implanted in the wall of the

_____ .

[3]

BLANK PAGE

10 The graphs show how temperature affects the feed intake and growth rate of pigs.



(a) At what temperature do the pigs eat most food?

Answer _____ °C [1]

(b) Describe the effect that temperature has on the feed intake and growth rate of the pigs.

[3]

11 A farmer records the numbers of piglets in different litters for the same sow.

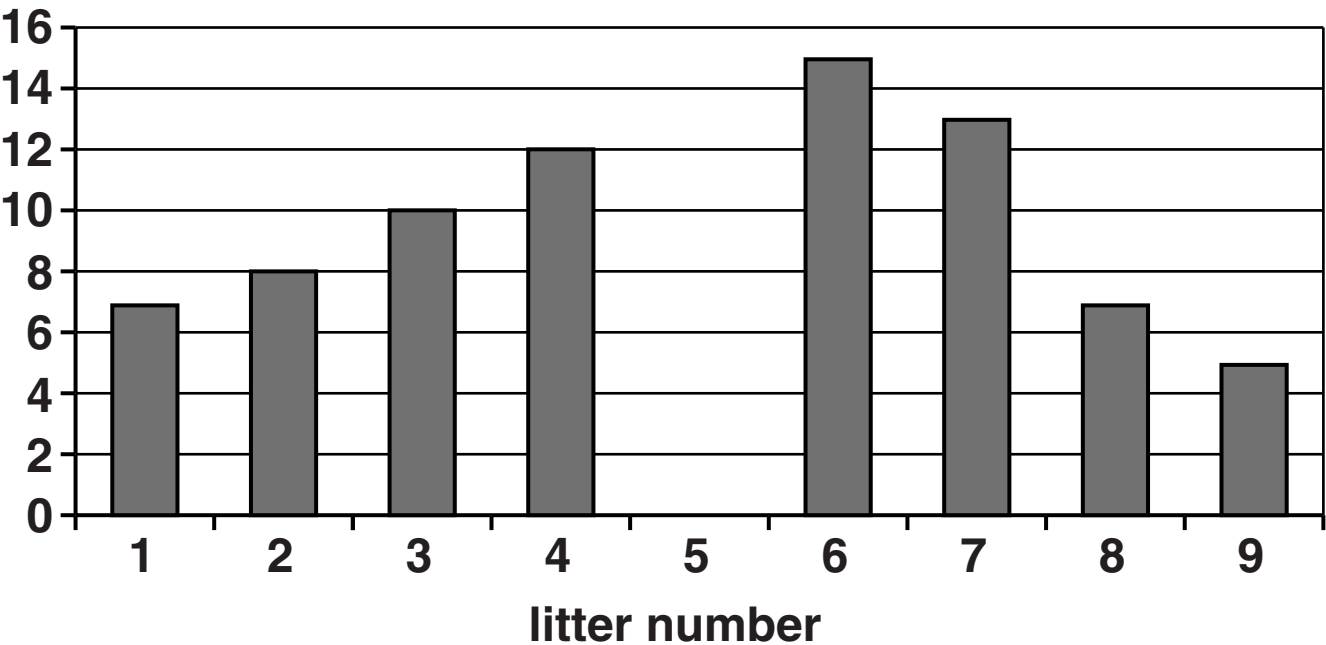
LITTER	NUMBER OF PIGLETS
1	7
2	8
3	10
4	12
5	16
6	15
7	13
8	7
9	5

(a) A graph was plotted from these data.

One of the bars on the graph is missing.

Draw this bar on the graph.

number of piglets per litter



[1]

(b) Use the data in the table to calculate the average number of piglets per litter for this sow.

Answer _____ **[1]**

12 For an animal you have studied, compare the ways of keeping the animals intensively and extensively.

type of animal _____

[4]

- 13 Allowing hens to free range outside is thought to improve the colour of the yolk in the eggs that they lay.**

Describe an experiment that could be carried out to test if this is true.

[4]

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.