

GENERAL CERTIFICATE OF SECONDARY EDUCATION
ENVIRONMENTAL AND LAND-BASED SCIENCE
Care of Animals (Higher Tier)

B494/02

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

OCR supplied materials:
None

Other materials required:

- Pencil
- Ruler (cm/mm)

Wednesday 26 January 2011
Afternoon

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 photograph shows a police sniffer dog with its handler.



A police sniffer dog needs to have special qualities.

Which **two** qualities are most important in sniffer dogs?

- A aggression
- B coat quality
- C colour
- D muscle
- E obedience
- F size
- G speed
- H temperament

Answer **A, B, C, D, E, F, G** or **H** and**[2]**

2 The table lists some health problems of small animals.

Select one **sign** and one **control method** for each health problem.

Complete the table.

| health problem | signs | control method |
|-----------------------|-------|----------------|
| intestinal roundworms | | |
| lice | | |
| viral pneumonia | | |

signs

animal rubbing

animal coughing

blood in droppings

diarrhoea

loss of balance

control method

antibiotics

improve ventilation

insecticide powder

vaccination

worm powder

[3]

3 Animals are treated differently for different purposes.

The photograph shows a gun dog.



What would be the most suitable living space, sleeping place and exercise level for a gun dog?

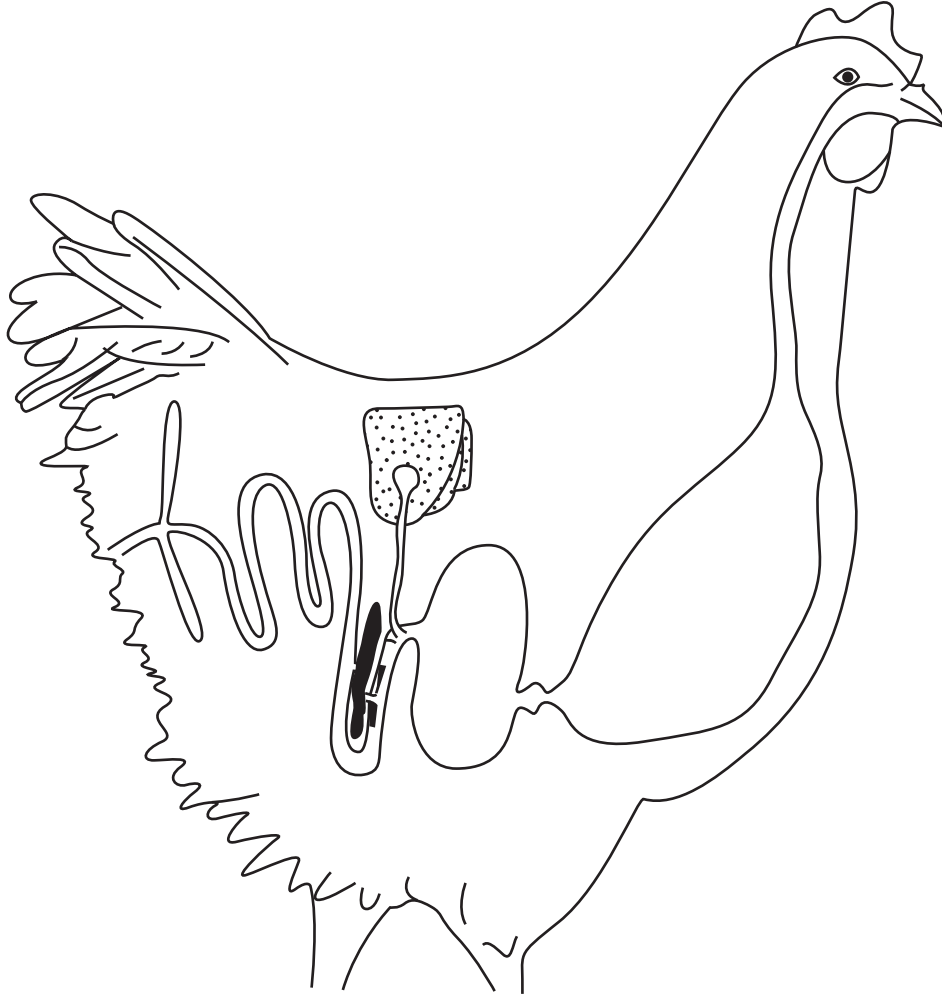
- A live and sleep in outside kennel with at least 6 hours daily exercise
- B live and sleep indoors with two 30 minute walks
- C live in garden / yard, sleep indoors with two daily 30 minute walks
- D live in garden / yard, sleep outdoors, walks irregular, at weekends

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

4 The diagram shows a bird's digestive system.

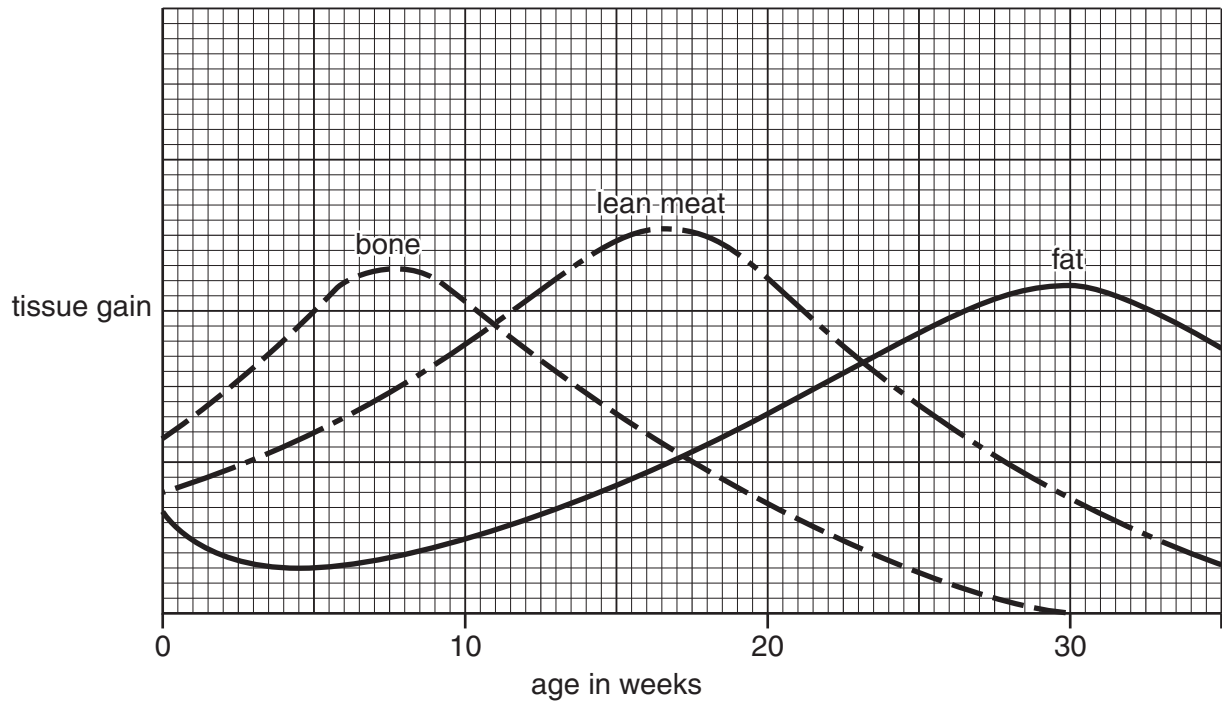
Write **Es** on **two** parts of this digestive system where enzymes are active in breaking down food.

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



[2]

5 The graphs show the changes in the type of tissue gain made by a growing animal.



Use the graph to answer the question.

During which period should **extra** calcium be added to the animal's diet?

- A 0 to 35 weeks
- B 2 to 10 weeks
- C 12 to 20 weeks
- D 24 to 35 weeks

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

6 Animals are sometimes kept in poorly ventilated and crowded conditions.

These animals would suffer because the atmosphere would become:

- A dry and lack oxygen
- B dry and lack carbon dioxide
- C humid with excess oxygen
- D humid with excess carbon dioxide

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

7 The table below shows three parts of the digestive system of a bird.

Complete the table to show **one** function of each part.

| part of digestive system | function |
|--------------------------|----------|
| crop | |
| gizzard | |
| small intestine | |

[3]

8 The photograph shows a Russian hamster feeding on fibre.

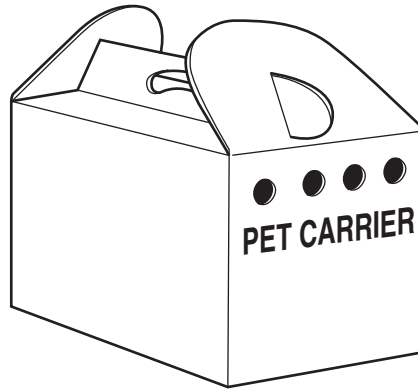


Why is fibre important in the diet?

.....
 [1]

9 The picture shows a simple pet-carrying box.

The box is cheap and easy to use.



State **two** features of this pet-carrier that would make it suitable for carrying small animals.

1

2 [2]

10 The photograph shows a guinea pig being handled in a routine health check.



State **one** reason for handling the animal during a routine health check.

..... [1]

11 The photograph shows a hamster feeding ad lib.

This means that food is always available.



Suggest **two** disadvantages of providing food in this way.

1

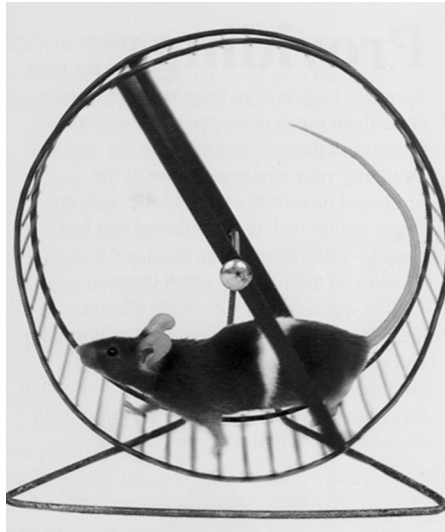
.....

2

..... [2]

12 The picture shows a mouse in a wheel.

This is placed in the mouse cage.



A student wants to find out about the activity of the mouse in the wheel over a 24 hour period.

Suggest and explain how ICT might be used to achieve this.

.....

.....

.....

..... [2]

13 The photograph shows a group of budgerigars in an aviary.



The owner wishes to introduce some new birds to the aviary.

Suggest how this might be done to ensure that the interaction between the birds does not lead to fighting.

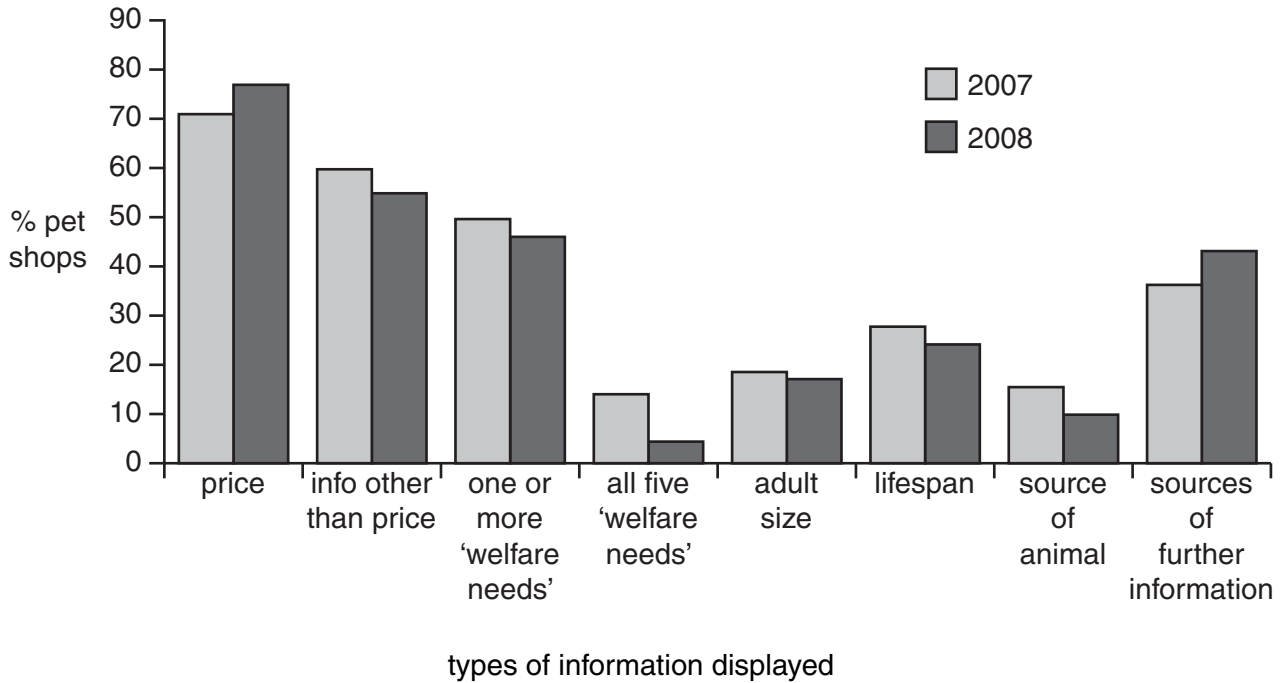
.....

..... [1]

14 Breeds of animals have different characteristics and requirements.

Pet shops provide information for their customers on the requirements of different animals.

A survey was carried out in 2007 and 2008 to investigate the type of information that pet shops provided.



(a) Name a type of information that was found in an increased percentage of pet shops in 2008.

..... [1]

(b) Which type of information shows the greatest change between 2007 and 2008?

..... [1]

- 15 The table lists succulent food plants that can be fed to small animals.

| wild and home grown food plants for small animals | | | | |
|--|--------------------|-----------------------|-------------------|-----------------------|
| common name | latin genus | when available | part eaten | other comments |
| apple | <i>Malus</i> | Yr | Fr | twigs aid teeth |
| borage | <i>Borago</i> | Su | L Fl | aids digestion |
| broccoli | <i>Brassica</i> | A W | L | use in small amounts |
| cabbage | <i>Brassica</i> | Yr | L | use in small amounts |
| carrot | <i>Daucus</i> | Yr | L R | can be fed ad lib |
| cauliflower | <i>Brassica</i> | Su W | L | use in small amounts |
| dandelion | <i>Taraxacum</i> | Yr | L R | use in moderation |
| dock | <i>Rumex</i> | Yr | L | R & S poisonous |
| groundsel | <i>Senecio</i> | Yr | L Fl Fr | use in small amounts |
| lettuce | <i>Lactuca</i> | Yr | L | for adults only |
| sprouts | <i>Brassica</i> | A W | L | use in small amounts |
| swede | <i>Brassica</i> | W | R | can be fed ad lib |

Key: when available Yr all year part eaten Fl flower
 Sp spring Fr fruit
 Su summer L leaf
 A autumn R root
 W winter S stem

- (a) Which **one** of the food plants can be found at any time of the year, most parts of which can be eaten but only in small amounts?

.....

[1]

- (b) What is the common feature of **all** the genus *Brassica* in this table?

.....

[1]

- 16 A study was carried out on the food intake and growth of New Zealand rabbits from birth to eight weeks old.

The results are in the table below.

| age (weeks) | weekly food intake | | body mass | |
|-------------|---------------------|--------------------------------|---|--------------------------------|
| | doe and litter (kg) | mean mass per young rabbit (g) | total litter mass of young rabbits (kg) | mean mass of young rabbits (g) |
| 1 | 1.91 | | 0.45 | 56.7 |
| 2 | 2.29 | | 1.09 | 136.2 |
| 3 | 2.31 | | 1.91 | 239.0 |
| 4 | 3.10 | 313 | 4.40 | 550.0 |
| 5 | 5.24 | 417 | 7.08 | 885.0 |
| 6 | 7.00 | 378 | 9.80 | 1226.0 |
| 7 | 8.02 | 428 | 12.35 | 1544.0 |
| 8 | 9.31 | 428 | 15.61 | 1952.2 |

(a) How many rabbits were in the litter? [1]

(b) As the young rabbits get older they would be expected to eat more.

Comment on the figures recording the food intake of the young rabbits.

.....
 [1]

17 For a named small mammal, bird or reptile, describe **three** routine health checks that need to be made.

Suggest why each check is needed.

named animal

.....

.....

.....

.....

..... [3]

18 Risk assessments can relate to animals as well as people.

The photograph shows an animal being washed before going to a show.



Suggest possible risks to the animal that might arise from showing.

.....

.....

..... [2]

19 The photograph shows a pedigree Persian cat.



Pedigree Persian cats sometimes have breathing problems.

This may be a result of line breeding producing undesirable traits.

Explain why.

.....

.....

.....

.....

..... [3]

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.