

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

B494/02

Candidates answer on the Question Paper

OCR Supplied Materials:
None

- Other Materials Required:**
- Electronic calculator
 - Pencil
 - Ruler (cm/mm)

Thursday 24 June 2010
Afternoon

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 Which one of the following could result from the bite of a small animal?



Put a **ring** around the correct answer.

B S E

roundworm infection

chicken pox

tetanus

[1]

2 Why is fibre included in a small mammal's diet?

Put a tick (✓) in the box next to the correct answer.

to help grow a healthy coat of hair

to help the movement of food through the gut

to provide the animal with calcium

to provide the animal with cellulose

[1]

3 Which of the following is classed as roughage, a food that is high in fibre and low in water?

Put a tick (✓) in the box next to the correct answer.

apple

grass

hay

lettuce

[1]

4 What is the function of the large intestine?

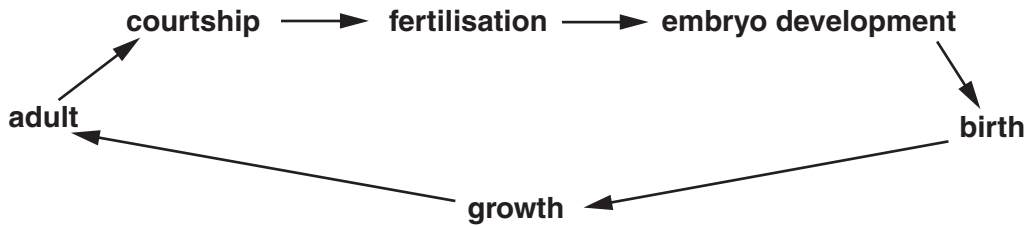
Put a tick (✓) in the box next to the correct answer.

- to absorb water
- to break up fats
- to digest cellulose
- to make vitamin D

[1]

5 All organisms have a life cycle.

The diagram shows stages in a generalised life cycle.



Write in the table the stage/stages that take place inside the female mammal and inside the bird's egg.

A stage may be used once, more than once or not at all.

inside the female mammal	inside the bird's egg

[3]

6 Complete the statement about enzymes.

Enzymes molecules as they pass through the gut.

Put a **(ring)** around the correct answer.

break up

build up

combine

dissolve

[1]

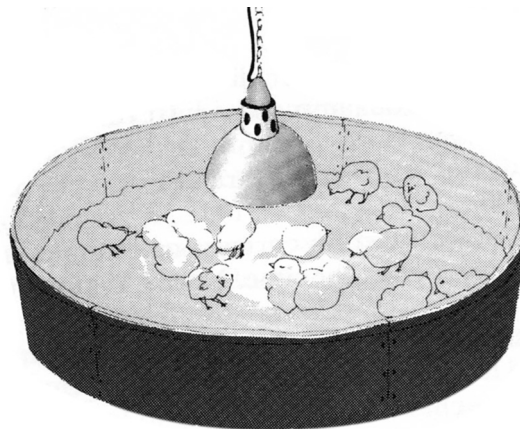
7 Which components of a healthy diet are:

- essential for life
- part of a balanced diet
- present in very small quantities in the diet
- maybe destroyed by cooking or storage for long periods of time?

Answer

[1]

8 Newborn mammals, birds and reptiles need to be kept warm.



Write down the ideal temperature range for an animal you have studied.

Select the temperature range from the list below.

animal studied

temperature range

5–15 °C

15–25 °C

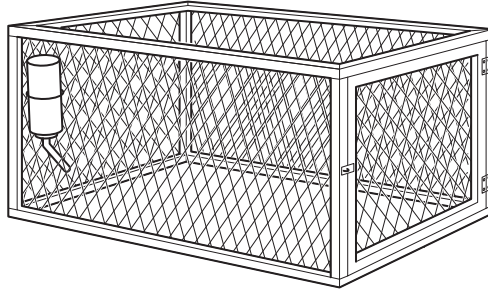
25–35 °C

35–45 °C

45–55 °C

[1]

- 9 The picture shows an open top run that can be used for keeping rabbits and guinea pigs.
The animals are only kept outside during **good** weather.



Suggest **two** possible dangers of keeping small animals outside in this run.

1

.....

2

..... [2]

- 10 Small animals have to be transported

- from pet shop to home
- to shows.

The photograph shows how **not** to transport small animals.



For a named animal state and explain **two** requirements for safe animal transport.

type of animal

1

.....

2

..... [2]

11 The animal is feeding and drinking well yet it is steadily losing condition and weight.



(a) Suggest a possible reason for this.

..... [1]

(b) Explain how you could confirm your diagnosis.

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

12 The photograph shows a vivarium used for keeping reptiles.



In the vivarium the temperature has to be strictly controlled.

(a) Explain how ICT can be used to control temperature in a vivarium.

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

(b) Suggest why it is more important to control the temperature in a vivarium rather than in a small mammal cage.

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

13 This question is about line breeding.

Read the information on **this** page then answer the questions (a) and (b) on **page 9**.

The photograph shows two hamsters.



Harry

Harriet

The features of animals are controlled by genes.
These are passed on to offspring from the parents.
Each offspring has half its genes from its father and half from its mother.

Harry and Harriet have one offspring, Jill.

parents	Harry	x	Harriet
offspring		Jill	

(50% Harry genes and 50% Harriet genes)

Harry is then mated with Jill.

The offspring of this mating is Jack.

parents	Harry	x	Jill
offspring		Jack	

(.....% Harry genes and% Jill genes)

(a) What are the percentages (%) of Harry and Harriet genes in Jack?

% Harry genes

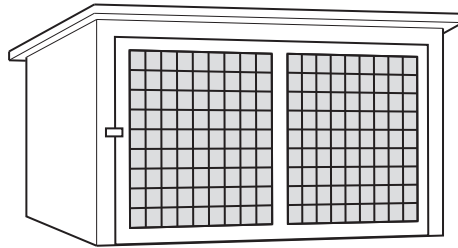
% Harriet genes [1]

(b) State **one** disadvantage of line breeding in this way.

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

14 A rabbit hutch needs **light** and **ventilation** and must be **free of draughts**.

The diagram shows a basic open-front rabbit hutch with a wire mesh grill.

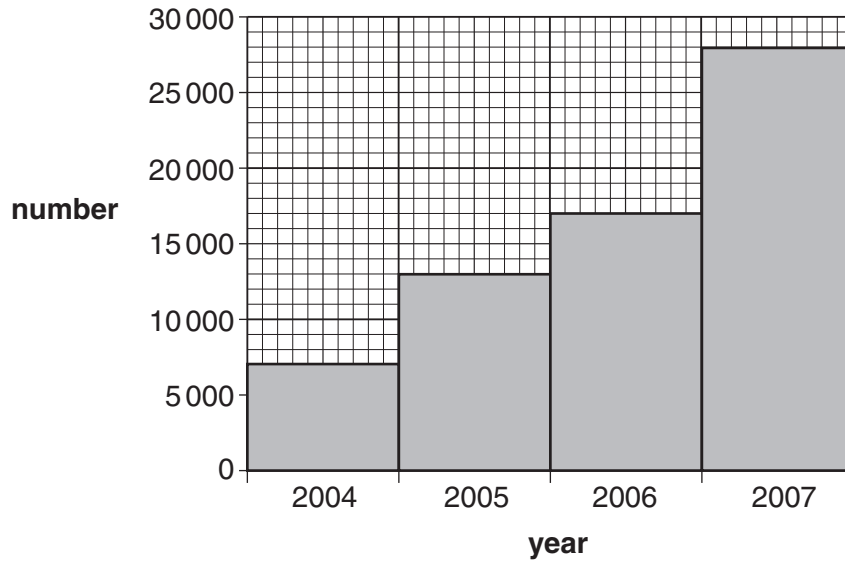


This hutch does **not** meet the needs stated above.

Explain **two** ways that this basic hutch could be adapted to fulfil these needs.

1
.....
2
..... [2]

15 The bar chart shows the number of dogs and cats micro-chipped by the RSPCA from 2004 to 2007.

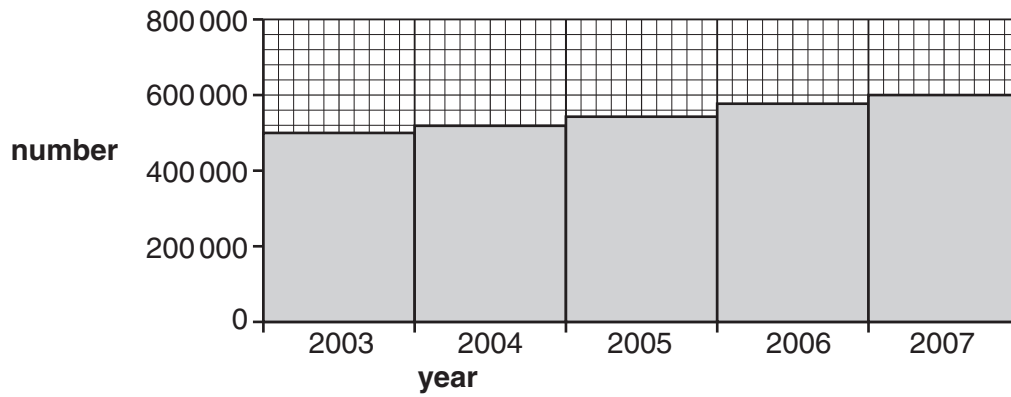


What is the **increase** in the numbers of dogs and cats micro-chipped between 2004 and 2007?

.....

[1]

16 The bar chart shows the number of cats and dogs registered on databases, 2003 to 2007.



By what percentage have registrations increased between 2003 and 2007?

Put a **ring** around the correct answer.

13%

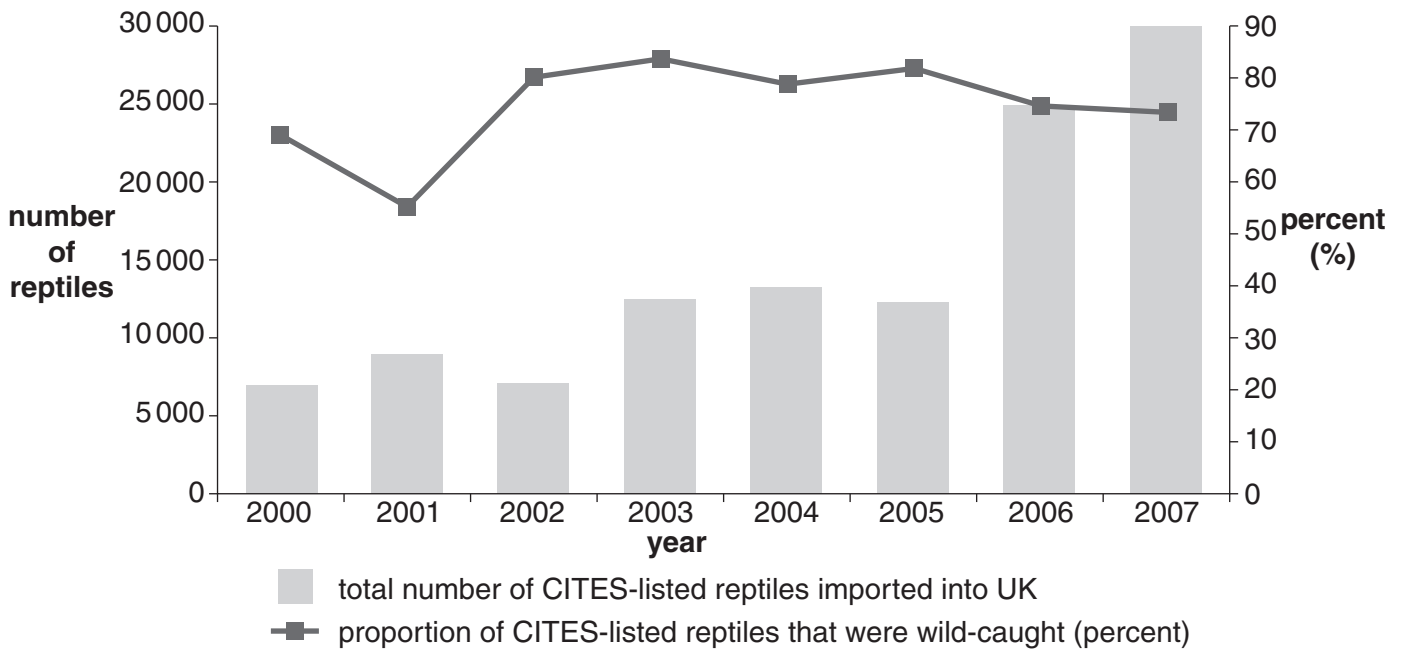
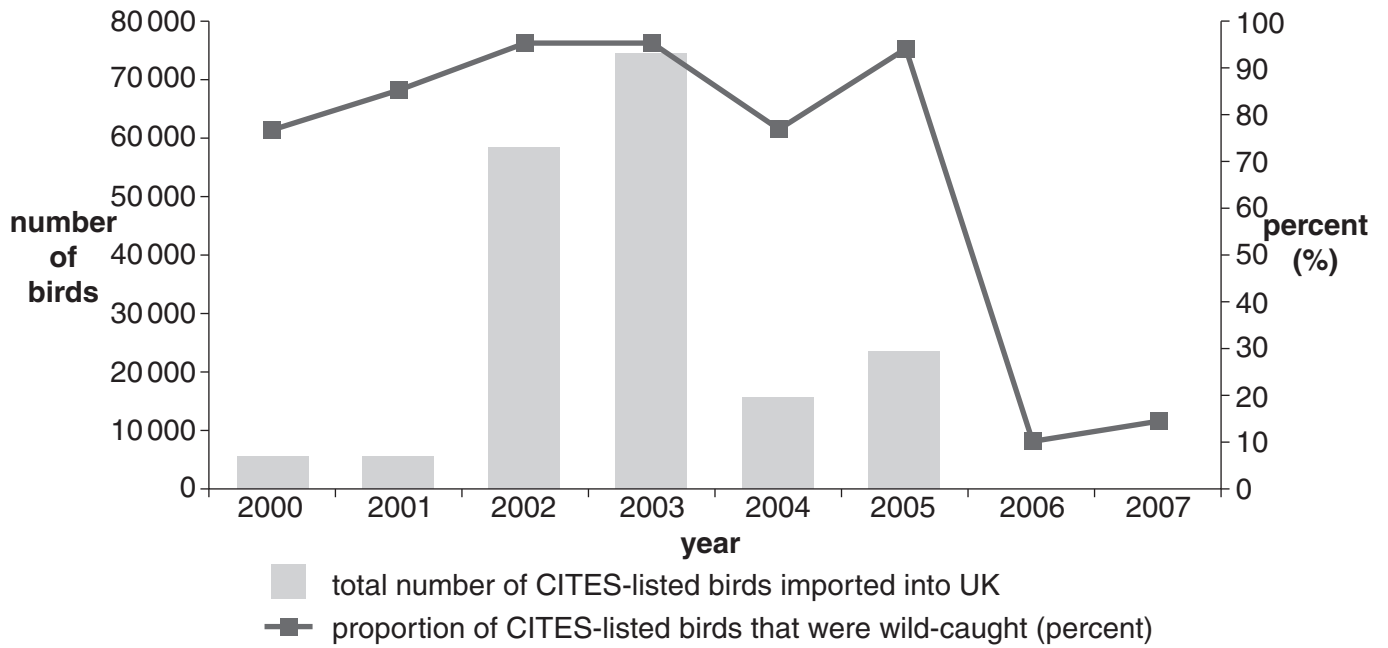
20%

25%

33%

[1]

17 The charts show the numbers of CITES-listed birds and reptiles that were imported into the UK between 2000 and 2007 and the percentage that were caught from the wild.



(a) Look at the bar charts.

(i) State two ways the pattern of imports for birds differ from the pattern of imports for reptiles.

1

.....

2

..... [2]

(ii) What conclusion can be made about the total number of imports of birds and reptiles over the whole period?

..... [1]

(b) Look at the line graph for the percentage of reptiles caught from the wild.

Estimate the average percentage of reptiles that had been caught from the wild over the years 2002 to 2007.

..... [1]

18 The photographs show a mongrel dog and a show dog.



Describe the **process** of selective breeding to produce a show animal.

.....
.....
.....
.....
..... [3]

19 Describe in detail how to weigh a small animal correctly.

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

20 Small animals are often found in a Pets Corner at farm parks and other attractions that are open to the public.



Here children are encouraged to handle the animals.

Describe possible risks to both animals and children.

Suggest how these risks could be lowered.

.....

.....

.....

.....

.....

.....

..... [3]

END OF QUESTION PAPER

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