

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 27 January 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, 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 **16** pages. Any blank pages are indicated.

Answer **all** the questions.

1 The photograph shows a girl having an injection.



Which disease should you be injected against if you are working with animals?

- A cholera
- B salmonella
- C tetanus
- D whooping cough

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

2 The table shows parts of the digestive system of a small mammal.

part of the digestive system	function
anus	
caecum	
large intestine	
mouth	
rectum	
small intestine	
stomach	

The following functions are carried out by different parts of the digestive system:

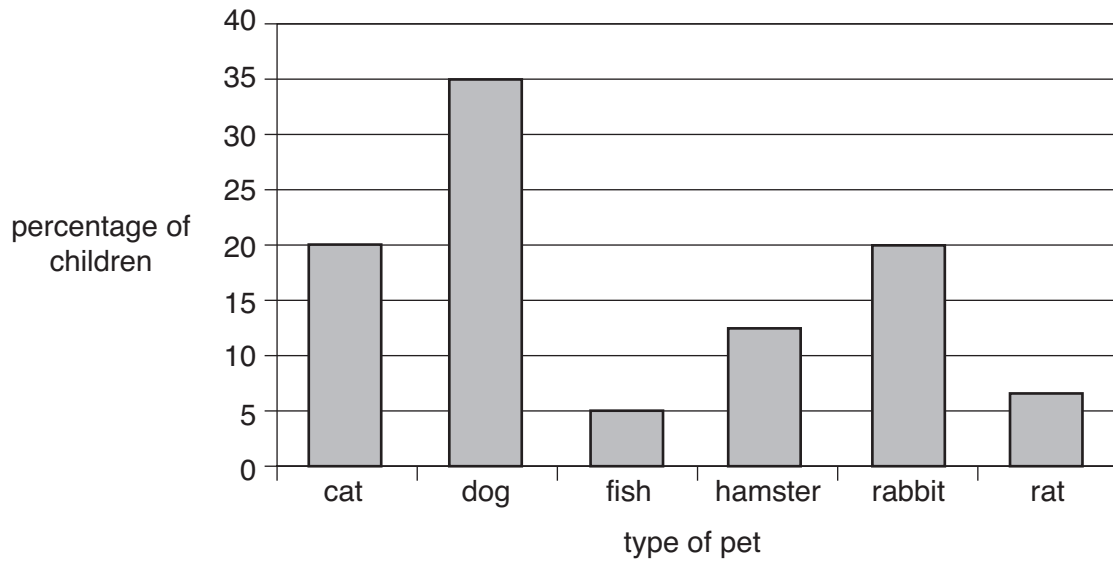
- absorbs digested food**
- absorbs water**
- contains microorganisms to digest cellulose**
- mechanically churns food**
- ejects undigested food from the body**
- stores waste food**
- takes food into the body**

Write the functions in the correct spaces in the table.

[3]

3 The chart shows the percentage of pets owned by children in a school.

The school has 1000 children.



How many of the children own a rabbit?

- A 2
- B 20
- C 200
- D 2000

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

4 Kylie has a pet rat and she wants to know about its behaviour.

She recorded what the rat was doing over a 60-minute period.

The table shows the results, starting on the left and finishing on the right.

activity	time spent on each activity (min)									
eating				4					4	
exploring			8			7		6		
gnawing							7			
grooming		5			6					4
sleeping	9									

(a) What activity did the rat do immediately after grooming?

- A eating
- B exploring
- C gnawing
- D grooming
- E sleeping

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

(b) What activity did the rat spend a total of 15 minutes doing during the investigation?

- A eating
- B exploring
- C gnawing
- D grooming
- E sleeping

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

- 5 The factsheet gives some information about a species of tortoise.

Sulcata tortoise factsheet	
origin	Sub-Saharan Africa
temperature	28 °C to 34 °C in the day, cooler at night
habitat	a lot of sunlight (with shade) and low humidity
lighting	basking light for heat plus UVB
attitude	friendly, strong, good eater
biggest threats	rich foods, cool temperature, high humidity, dehydration
schedule	active during the day
security	needs a hide box
size	45 cm in 15 years
foods	100% vegan, mainly grasses and edible weeds
supplements	calcium with vitamin D
water	large, flat water bowl and daily soakings

Suggest a reason for each of the following:

- (a) Why high humidity is a threat to the tortoise.

..... [1]

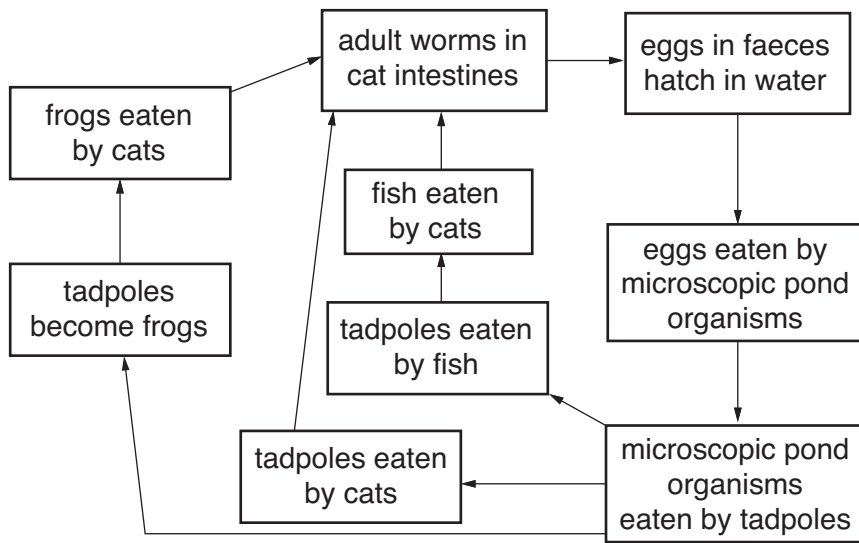
- (b) Why the tortoise needs calcium supplements.

..... [1]

- (c) Why the tortoise needs a heat source.

..... [1]

6 The diagram shows stages in the life cycle of a particular tapeworm found in cats.



Suggest at which stage of the life cycle these tapeworms would be best controlled to minimise the effect on the environment.

Explain your answer.

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..... [2]

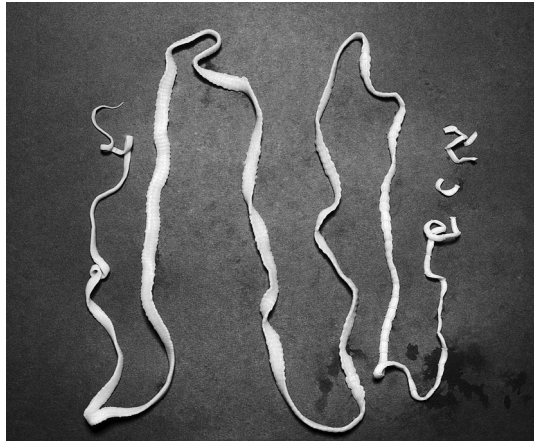
7 Small animals can be fed on succulent or concentrate foods.

Explain the difference between succulent and concentrate food.

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..... [1]

8 The photograph shows a tapeworm.



Give **two** symptoms an animal would show if it had tapeworms in its intestine.

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..... [2]

9 The photograph shows a dog in one type of pet carrier.



Give **one** advantage and **one** disadvantage to the owner of using this type of pet carrier.

advantage

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.....

disadvantage

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..... [2]

10 The photograph shows a pet rat.



Pet rats have been bred from wild brown rats.

Explain how selective breeding has produced the pale coat of this pet rat.

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..... [3]

11 The photograph shows two guinea pigs in their cage.



Describe how you would clean this cage.

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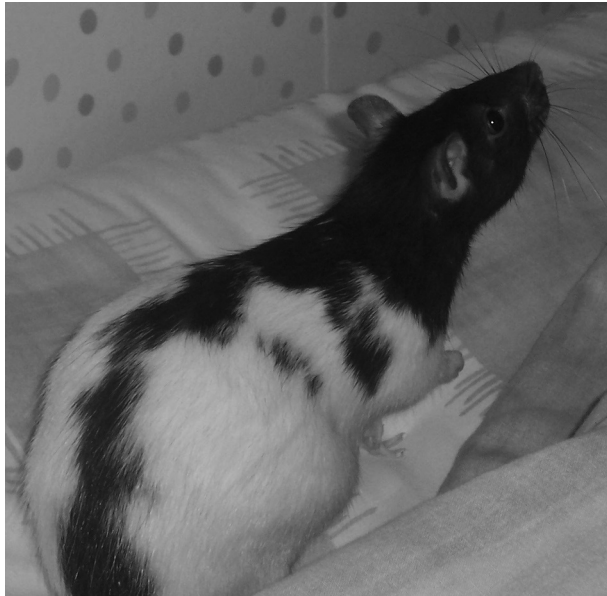
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..... [3]

12 The photograph shows a pregnant rat.



Explain how you would care for an animal in late pregnancy.

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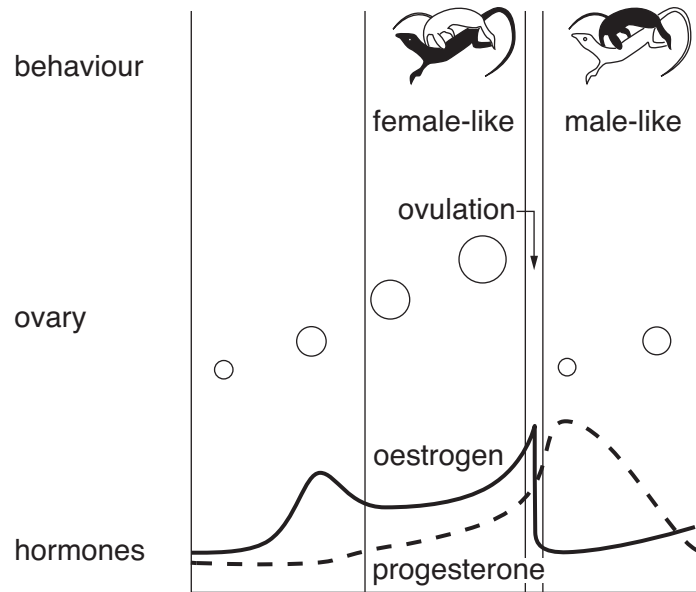
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..... [3]

13 The diagram shows the reproductive cycle of a whip-tailed lizard.



This lizard does not need to mate to produce eggs but still shows mating behaviour.

The lizards switch from female-like behaviour to male-like behaviour every three weeks.

Suggest how hormones control reproduction in this lizard.

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[3]

14 Routine health care is important when people keep pets.

Explain the reasons for the routine health care for an animal you have studied.

animal

health care

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

15 Food is broken down by enzymes in the digestive system of an animal.

Explain how enzymes break down food.

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..... **[4]**

END OF QUESTION PAPER

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