

**GENERAL CERTIFICATE OF SECONDARY EDUCATION  
 ENVIRONMENTAL AND LAND-BASED SCIENCE**

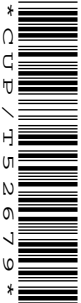
Care of Animals (Higher Tier)

**FRIDAY 20 JUNE 2008**

Morning  
 Time: 45 minutes

Candidates answer on the question paper  
**Additional materials (enclosed):** None

**Additional materials (required):**  
 Calculator  
 Pencil  
 Ruler



Candidate Forename

Candidate Surname

Centre Number

Candidate Number

**INSTRUCTIONS TO CANDIDATES**

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use blue or 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.
- There are no separate marks for the quality of written communication, but make sure that your answers are written in clear and well-structured English.

**INFORMATION FOR CANDIDATES**

- The number of marks for each question is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **36**.

FOR EXAMINER'S USE		
		Mark
<b>TOTAL</b>	<b>36</b>	

This document consists of **16** printed pages.

Answer **all** the questions.

1 The photograph shows a piece of equipment for transporting animals.



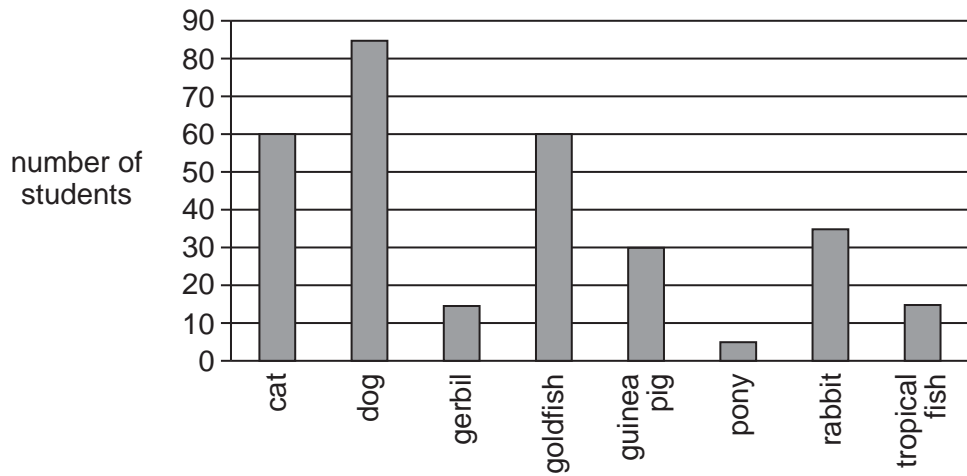
L Higginbottom/© OCR

Which **one** of the following animals could **not** be transported safely in this carrier?

- A cat
- B dog
- C mouse
- D rabbit

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

- 2 A survey was carried out in a school to see which pets the students had at home. The graph shows the results.



- (a) Which animal is **twice** as popular as gerbils?

- A cat
- B goldfish
- C guinea pig
- D rabbit

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

- (b) How many students in total keep fish as pets?

- A 15
- B 30
- C 60
- D 75

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

3 The photograph shows a lop-eared rabbit.



L Higginbottom/© OCR

Explain how selective breeding has been used to produce the long ears of the rabbit.

.....

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.....[3]

4 Sentinel® is a treatment for heartworm and fleas in dogs.

The table shows the recommended treatment for different sized dogs.

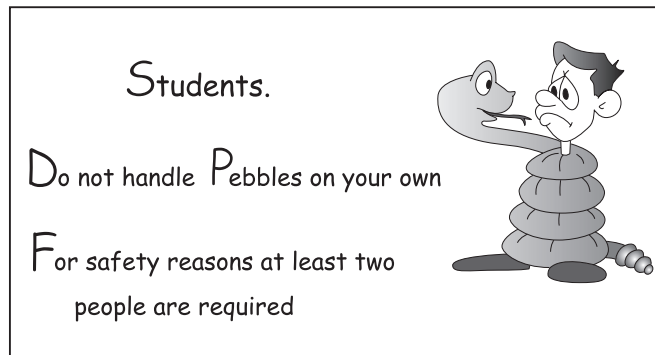
weight of dog (kg)	tablet size (mg)
1 – 5	46
6 – 12	115
13 – 25	230
26 – 50	460

What would be the correct tablet size for a dog weighing 8 kg?

- A 46 mg
- B 115 mg
- C 230 mg
- D 460 mg

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

5 The picture shows the sign on the cage of a large, heavy snake called Pebbles.



Explain why two people are needed to handle Pebbles.

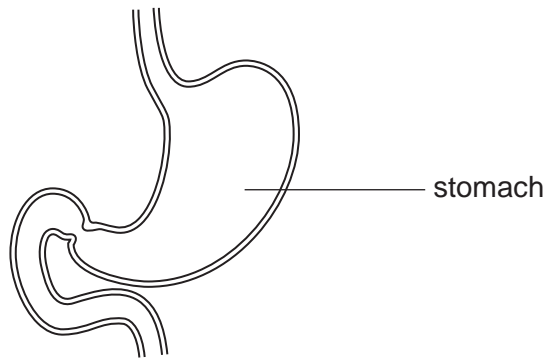
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.....[2]

6 The diagram shows part of the digestive system.



Which **one** of the following is a job of the stomach?

- A to absorb food
- B to add alkali
- C to churn food
- D to store waste

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

7 Which **one** of the following could be a sign that a rabbit is ill?

- A bright eyes
- B clear ears
- C dull coat
- D good appetite

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

8 The photograph shows the housing for a small lizard.



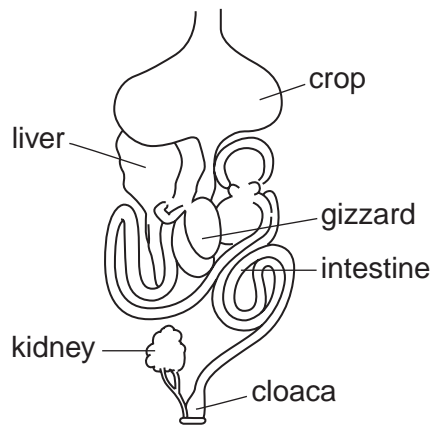
L Higginbottom/© OCR

Why is it important that this housing has good ventilation?

- A to provide draughts
- B to stop water from evaporating
- C to prevent fungal infection
- D to keep the lizard warm

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

9 The diagram shows the digestive system of a bird.



What is the main function of the crop?

- A absorbing food
- B churning food
- C grinding food
- D storing food

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

10 Some people keep tropical fish as pets.

They must be careful not to put too many fish in a tank.

The table shows data about the maximum number of fish which can be kept in a tank.

capacity of tank (litres)	number of fish of 1 cm length*
50	16
75	24
100	32
125	40
250	80

\*A 50 litre tank can hold sixteen 1 cm fish or eight 2 cm fish etc.

(a) How many **6 cm long** fish could be kept in a **75 litre** tank?

.....[1]

(b) What size tank would you need for **ten** fish of **4 cm** length?

.....[1]



11 Records need to be kept of the mating of pedigree animals.

These records can either be

- paper-based

or

- computer-based

Give **three** advantages of computer-based systems compared to paper-based systems.

1 .....

.....

2 .....

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3 .....

.....[3]

12 The following is the information on a label for rabbit food.

## Bouncy Bunny

A complete cereal, vitamin and mineral ration for rabbits.

**Analysis:**

Crude protein, not less than	17.0%
Crude fat, not less than	2.5%
Crude fibre, not more than	25.0%

This ration is designed for rapidly growing rabbits, gestating and lactating does and working bucks.

(a) What is the role of fibre in the diet?

- A prevent constipation
- B prevent diarrhoea
- C for energy
- D for growth

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

(b) *Regular Bunny* is a complete food for a **non-breeding** rabbit.

How will this ration be different from **Bouncy Bunny**?

- A *Regular Bunny* will have less fat
- B *Regular Bunny* will have less fibre
- C *Regular Bunny* will have less protein
- D *Regular Bunny* will have less water

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

13 The table shows some information on two cat foods.

nutrient	kitten formula (%)	adult formula (%)
protein	48.5	19.0
fat	27.5	8.0
carbohydrate	16.0	57.5
fibre	0.5	11.0
calcium	1.2	0.6
other	6.3	3.9

(a) The kitten formula has 6.3% of other ingredients.

Suggest **two** substances that may be in this category.

.....[2]

(b) Explain why the kitten formula has more **calcium** than the adult formula.

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

14 Sentinel® is a treatment for heartworm and fleas in dogs.

The table shows the recommended treatment for different sized dogs.

weight of dog (kg)	tablet size (mg)
1 – 5	46
6 – 12	115
13 – 25	230
26 – 50	460

Tom’s dog weighs 55 kg.

How could he treat his dog with Sentinel® at the correct dosage?

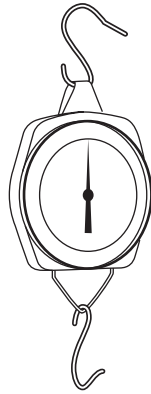
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.....[2]

15 The picture shows the apparatus you could use to find the weight of a small mammal.



Describe how you would use this apparatus to weigh a guinea pig accurately.

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.....[2]

16 The table shows some data on reproduction for a range of mammals.

species	puberty	oestrus	gestation
dog	7–12 months	twice yearly	63–67 days
hamster	6–10 weeks	every 4 days	15–22 days
mouse	3–4 weeks	every 4–5 days	19–21 days
rabbit	3 months	induced ovulation	30–33 days

Explain why it is important to separate male and female baby mice as soon as possible.

Use the data in the table to help you.

.....

.....

.....

.....[2]

17 The table shows some information about pets kept in the USA in 1991 and 1996.

pet	average number of pets per house		number of houses with pets, in thousands	
	1991	1996	1991	1996
fish	9.05	8.92	2652	6228
gerbil	2.18	2.76	284	277
guinea pig	1.77	1.87	473	583
rabbit	3.22	2.63	1420	1878
snake	3.88	4.14	189	217

(a) Which pet is found in **fewer** houses in 1996 than in 1991?

- A fish
- B gerbil
- C guinea pig
- D rabbit
- E snake

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

(b) The number of houses where fish were kept as pets increased significantly between 1991 and 1996.

Suggest **two** possible reasons for this.

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

18 Inbreeding can be used to develop or retain desired characteristics in animals.

Give **three** problems that may result from inbreeding.

- 1 .....
- 2 .....
- 3 ..... [3]

**END OF QUESTION PAPER**

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