

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

B494/02

Care of Animals
(Higher Tier)

**Friday 19 June 2009
Morning**

Duration: 45 minutes

Candidates answer on the question paper

OCR Supplied Materials:
None

Other Materials Required:

- Electronic calculator
- Pencil
- Ruler (cm/mm)



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 some food suitable for a guinea pig.



What name is given to this type of food?

- A concentrate
- B moist
- C roughage
- D succulent

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

2 There may be hazards in doing practical work with small animals.

(a) Give **one** disease that can be transmitted from small animals to humans.

..... [1]

(b) Suggest **one** way in which the transmission of diseases could be reduced.

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

3 Breeders of pedigree cats need to keep careful records.

The use of computers is an efficient way to maintain these records.

Suggest **one** piece of information a cat breeder might want to record on the computer.

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

- 4 The photograph shows a small mammal in its housing.



One feature of good housing is adequate ventilation.

Explain why this is important.

.....

.....

.....

..... [2]

- 5 The table shows some information on different breeds of rabbit.

breed	average mass (kg)	average lifespan (years)
Dutch	2.2	7
French lop	5.3	6
Lionhead	1.7	8
Netherland dwarf	1.1	9
Polish	1.0	9


What is the relationship between average mass and average lifespan?

.....

..... [1]

6 This is a label from tinned cat food.

CUTE KITTY CAT FOOD	
Protein	7.8%
Fat	4.5%
Ash	3.0%
Fibre	0.5%
Moisture	82.5%
Other	1.7%



(a) Included in the 1.7% 'other' ingredients are vitamins and minerals.

Name **one** important vitamin and give **two** functions it has in the cat's body.

vitamin

functions

1

.....

2

..... [3]

(b) The food is broken down by enzymes in the digestive system of the cat.

Explain how enzymes break down food.

.....

.....

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.....

.....

.....

.....

..... [4]

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

pet	mean number of pets per house		number of houses with pets (1000s)	
	1991	1996	1991	1996
fish	9.05	9.12	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

Which pet is kept in smaller numbers per house in 1996 than in 1991?

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

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

8 The photograph shows a King Charles spaniel puppy.



Explain how selective breeding could be used to produce the long silky fur of the spaniel.

.....

.....

.....

.....

.....

.....

..... [3]

10 Mr Kent works in a bank and lives in a flat in the city.

He works late most days.

At weekends he often visits friends.

Select **one** suitable pet for Mr Kent.

- A cat
- B dog
- C fish
- D parrot

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

11 There are risks in working with small animals.

Describe **two** risks associated with working with a **named** animal.

Explain the control measures you would put in place to minimise these risks.

animal

risk 1

control measure

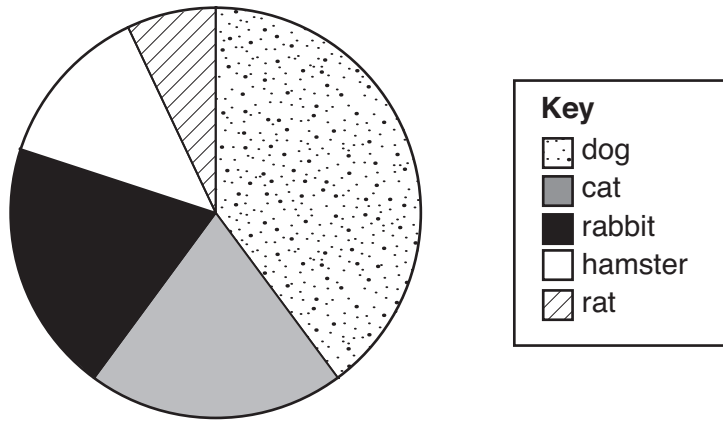
.....
..... [1]

risk 2

control measure

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

12 The chart shows the popularity of some different pet animals.

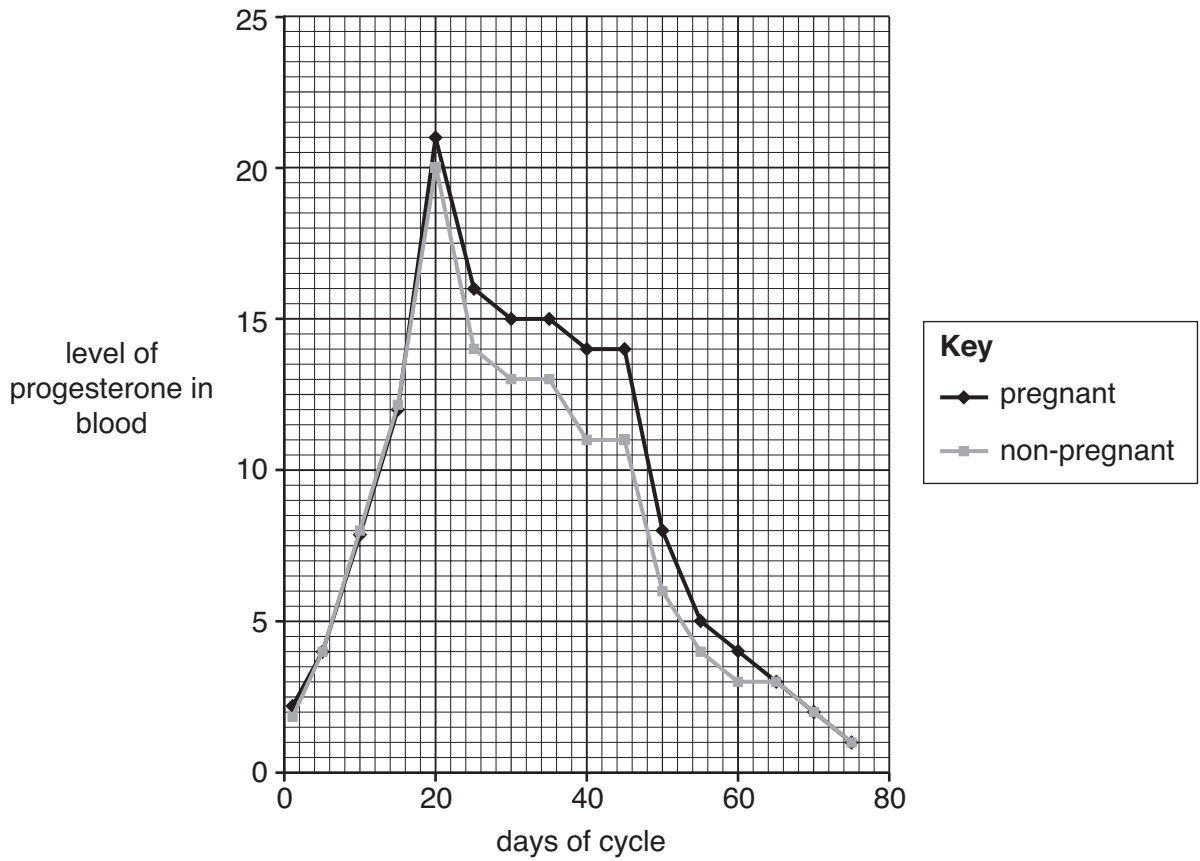


Which **two** animals were equally popular?

- A cat and dog
- B cat and rabbit
- C dog and rabbit
- D hamster and rat

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

13 The chart shows changes in the level of progesterone during a 75 day cycle in a pregnant and in a non-pregnant bitch.



When carrying out a pregnancy test the concentration of progesterone is not used.

Use data from the graphs to explain why.

.....

.....

.....

..... [2]

14 Some animals need a specialist environment.

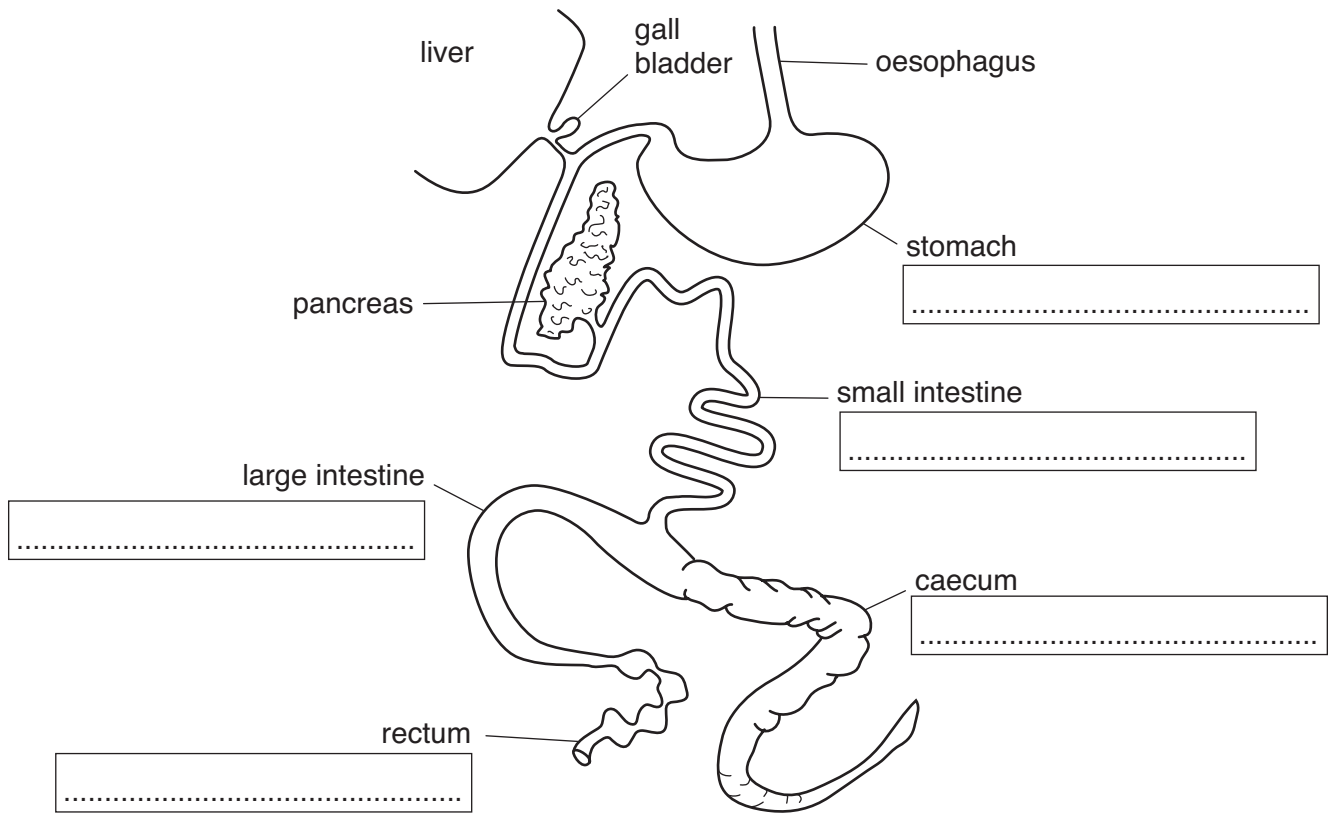
Explain **two** ways in which ICT can be used to monitor and control a specialist environment for a **named** animal.

animal

1 [2]

2 [2]

15 The diagram shows the digestive system of a rabbit.



Write the function of the organs in the correct boxes on the diagram.

Choose from the list below.

- absorbs water
- churns food
- digestion of cellulose
- digestion of fats
- stores waste

[4]

END OF QUESTION PAPER

13
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