



# Australian and New Zealand College of Veterinary Scientists

## **Fellowship Examination**

June 2013

## **Veterinary Behavioural Medicine** **Paper 1**

Perusal time: **Twenty (20)** minutes

Time allowed: **Four (4)** hours after perusal

Answer **ALL EIGHT (8)** questions

Answer **EIGHT** questions each worth 30 marks .....total 240 marks

# Paper 1: Veterinary Behavioural Medicine

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Answer all eight (8) questions

1. Contrast the social organisation and reproductive strategies of cats in their natural or ancestral habitat to that of stray or feral cats on farms and in cities. Discuss the implications of these for the behaviour and management of owned and stray (feral) cats. Discuss the mating success of cats on farms and in cities. (30 marks)
  
2. Your dedicated client loves his purebred Hereford bull, Chance who is a calm and friendly animal. He loves him so much that he asked Texas A & M University to clone the bull. The clone, named Second Chance, was born to a surrogate Hereford cow. In contrast to Chance, this clone is a nervous and aggressive animal. Discuss the heritability of timidity and aggression. Discuss the reasons why two genetically identical animals could have different behaviours. (30 marks)
  
3. Discuss the controls of feeding behaviour in monogastric and ruminants animals, including gastrointestinal and brain peptides. (30 marks)
  
4. A series of recent studies have suggested that domestic dogs show attachment toward their owners.
  - a) Define the **three (3)** fundamental elements of an attachment bond. (5 marks)
  
  - b) Describe **three (3)** behaviours related to attachment. (5 marks)
  
  - c) Describe the Ainsworth modified test used to study the phenomenon of attachment in dogs and discuss whether and how it could be used in behavioural clinical practice. (20 marks)

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5. Discuss vision in sheep, cattle and pigs and how it impacts on the design of facilities such as yards, slaughter plants and sheds. *(30 marks)*
6. Animal-assisted therapy has become widely used as an adjunctive treatment for alleviating psychological and medical difficulties in people with special needs.
- a) Discuss current evidence-based perspectives on animal-assisted therapies. *(15 marks)*
- b) Describe common limitations of experimental design that may confound scientific studies on animal-assisted therapies. *(15 marks)*
7. Answer **both** parts of this question:
- a) Discuss round pen training in horses in terms of learning theory. *(15 marks)*
- b) Discuss how horse trainers' ignorance of learning theory can lead to inappropriate behaviours in the horse. *(15 marks)*
8. Answer **both** parts of this question:
- a) Discuss recent findings and differing opinions concerning the domestication of dogs. *(15 marks)*
- b) Discuss the physiological, behavioural and genetic changes that emerged when foxes were deliberately selected for tameness. *(15 marks)*

**End of paper**



# Australian and New Zealand College of Veterinary Scientists

## Fellowship Examination

June 2013

## Veterinary Behavioural Medicine

### Paper 2

Perusal time: **Twenty (20)** minutes

Time allowed: **Four (4)** hours after perusal

Answer **ALL EIGHT (8)** questions

Answer **EIGHT** questions each worth 30 marks .....total 240 marks

# Paper 2: Veterinary Behavioural Medicine

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Answer all eight (8) questions

1. Answer **all** parts of this question:

- a) Describe, in detail, the clinical signs of canine cognitive dysfunction and how it can be differentiated from changes in behaviour that are a result of age-related physical changes such as blindness, deafness and lameness. (10 marks)
- b) Discuss the putative pathogenesis of canine cognitive dysfunction. (10 marks)
- c) Identify psychopharmacological treatment(s) that can be used for treatment of this disorder and describe the mechanisms of action for each medication. (10 marks)

2. Answer **both** parts of this question:

- a) Summarise the discussion in the literature surrounding the aetiology of crib biting in horses. (10 marks)
- b) Discuss, in detail, environmental, dietary, surgical, mechanical and psychopharmacological methods that have been used to reduce crib biting in horses. Include the proposed mode of action of the psychopharmacological treatment(s). (20 marks)

3. Discuss the use of drug therapy for feather plucking in parrots. Include in your answer discussion of various drugs that have been recommended, their mode of action, potential side effects and contraindications and the quality of evidence supporting their use for this purpose. (30 marks)

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4. Answer **both** parts of this question:

- a) An elderly lady, living alone, has a four-year-old desexed female domestic short haired cat. She is concerned because the cat runs and hides when she has visitors in the house. The cat remains in hiding for hours after the visitors have left. This has been going on for at least one year. The cat is kept solely indoors and has no medical problems. The owner is concerned about the cat being frightened and wants it to be more confident around her visitors.

Discuss your approach to diagnosis and management of this case. (15 marks)

- b) A university student presents you with a three-year-old desexed male domestic shorthaired cat that is in good health. The cat has been attacking her whenever she sits at the kitchen table, scratching at the student's face. The student shares the house with four other people and the cat attacks no one else. It only ever attacks her when she is at the table and it does not matter what she is doing at the table. This problem has been going on for about two months. There are no other cats in the house.

Discuss your approach to diagnosis and management of this case. (15 marks)

5. Discuss the physiological basis of predatory behaviour and the prevention, treatment and prognosis for remediation of a dog that kills livestock. (30 marks)
6. Compare and contrast the behaviour of goats and sheep. Discuss how these impact on the management of these species under different farm systems. (30 marks)

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7. Answer **all** parts of this question:

- a) A giraffe in an urban zoo is exhibiting repetitive tongue rolling. Discuss the aetiology and prevention of this behaviour. (10 marks)
- b) As a behaviour consultant you are asked to advise on a programme to eradicate wild horses using non-lethal means from an area in Western Australia. Discuss how the behavioural characteristics of wild horses influence the design of such a programme. (10 marks)
- c) Five male C67 black mice are maintained in one cage. Four of the mice have hair loss on their backs. Discuss your approach to this problem, identifying, as appropriate, pathological and behavioural causes of the problem and possible solutions. (10 marks)

8. You are conducting a welfare audit of a piggery in the summer. The pregnant sows are kept in gestation stalls and then farrowed in crates.

Discuss your approach to such an audit. Identify behaviours the sows are inhibited from performing, behavioural and physiological changes associated with this type of housing and appropriate methods of environmental enrichment. (30 marks)

**End of paper**