

Australian College of Veterinary Scientists
Membership Examination

June 2010

Veterinary Behaviour
Paper 1

Perusal time: **Fifteen (15)** minutes

Time allowed: **Two (2)** hours after perusal

Answer **four (4)** from the six questions **only**.

All questions are of equal value.

Subsections of questions are of equal value unless stated otherwise.

Paper 1: Veterinary Behaviour

Answer four (4) from the six questions only.

Answer at least one (1) question from each of the three sections (A, B and C).

Section A

You must answer at least one (1) question from Section A.

1. Answer **one (1)** part of this question only:

Either

- a) 'Some cats will never be friendly'. Discuss this statement in relation to raising cats in a domestic situation. Use examples to illustrate your answer.

Or

- b) A new pet dog owner asks for your opinion regarding using positive punishment or positive reinforcement training methods. Explain which style of training you would recommend. Justify your answer, including definitions of punishment and reinforcement.

2. Answer **one (1)** part of this question only:

Either

- a) Discuss and define the developmental periods in dogs, and implications for rearing domestic dogs.

Or

- b) Describe and discuss **two (2)** of the following:
 - i. preparedness, as it relates to an animal's behaviour
 - ii. factors affecting food intake in horses
 - iii. scent marking in cats
 - iv. serotonin syndrome.

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Section B

You must answer at least one (1) question from Section B.

3. Answer **three (3)** of the following:

- a) Define imprinting. Explain whether or not Miller's 'imprint training' in horses meets this criteria.
- b) Describe and discuss the factors controlling sexual receptivity in sows.
- c) List **six (6)** factors that may limit interpretation of preference tests.
- d) Describe and discuss coprophagy in horses.

4. Answer **each** of the following:

- a) Discuss this statement: 'A good understanding of normal behaviour in chickens is necessary and sufficient for assessing the welfare of both broilers and egg producing birds'.
- b) Provide examples where an inability to express normal behaviour can result in poor welfare for chickens.

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Section C

You must answer at least one (1) question from Section C.

5. Write short notes on **four (4)** of the following:

- a) negative reinforcement in riding horses
- b) extinction burst
- c) successive approximations in teaching a cockatiel to swing around a perch
- d) the difference between habituation and sensory adaptation
- e) the role of beta amyloid in canine cognitive dysfunction
- f) the ram effect.

6. Answer **one (1)** part of this question **only**:

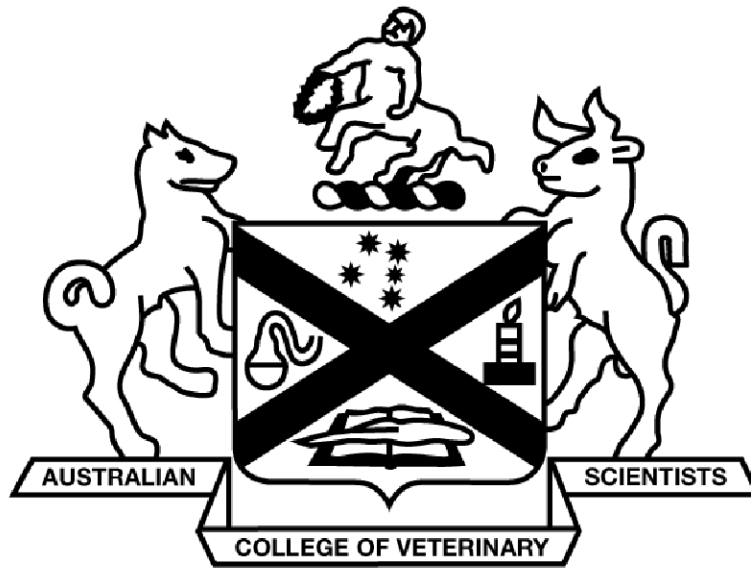
Either

- a) Discuss the neurophysiological response in a bilby when it detects a stalking fox.

Or

- b) Write notes on **all** of the following:
 - i. the means by which pathology of the hippocampus causes dysregulation of the stress response
 - ii. reticular activating systems (also known as diffuse modulatory systems)
 - iii. circadian rhythms.

End of paper



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Paper 2

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Answer **four (4)** from six questions **only**.

All questions are of equal value.

Subsections of questions are of equal value unless stated otherwise.

Paper 2: Veterinary Behaviour

Answer four (4) from the six questions only.

Answer at least one (1) question from each of the three sections (A, B and C).

Section A

You must answer at least one (1) question from Section A.

1. Answer **one (1)** part of this question only:

Either

- a) List the pharmacological agents you would consider using to treat a dog with separation anxiety. Detail the factors that would influence your choice.

Or

- b) A dog named 'Cowboy' presents with fear aggression towards unfamiliar people in the home. Two alternative approaches to treatment are counter-conditioning and response substitution (differential reinforcement of alternative behaviour). Discuss the learning theory underlying these two techniques and describe how you would instruct the owner to use (a) counter-conditioning to treat 'Cowboy' and (b) response substitution to treat 'Cowboy'.

2: Answer **one (1)** part of this question only:

Either

- a) Discuss the statement: 'All cats should be effectively contained within a property to prevent predation and nuisance behaviour'. In your answer, include the behavioural effects of confinement on cats.

Or

- b) A client has called you because she is having problems with her two cats. 'Maggie' is a five-year-old female desexed Burmese, and 'Picasso' is a three-year-old male desexed domestic long haired cat. Maggie has lived in the house since she was a kitten. Picasso was rescued from the pound six months ago. When introduced, Maggie hissed, growled and swatted Picasso, and over the last six months the aggression has escalated, so that the cats cannot be in the same room without Maggie attacking Picasso. Discuss how you would investigate this problem and outline a treatment plan. Include possible medications you might use.

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Section B

You must answer at least one (1) question from Section B.

3. Discuss physical, environmental, social, and learning factors that may contribute to a retired racing stallion failing to hand-mate.

4. Write notes on **three (3)** of the following:
 - a) Define the term 'pest'. Discuss behavioural knowledge that would be useful in designing a successful poisoning control program of a pest species.
 - b) causes of foal rejection in mares
 - c) medical differential diagnoses for feather picking in a sulphur-crested, white cockatoo
 - d) avoiding aggression when mixing post-weaning pigs.

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Section C

You must answer at least one (1) question from Section C.

5. You are asked to design housing facilities and a management program for a group of chimpanzees housed in a private zoo. Discuss the recommendations you will make based on behavioural considerations.

6. Write notes on **two (2)** of the following:
 - a) methylphenidate in dogs
 - b) teaching a ferret to accept and walk on a harness and leash
 - c) environmental enrichment for rabbits.

End of Paper