Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2021

Veterinary Behaviour

Paper 1

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

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

Answer **ALL FOUR (4)** questions

Answer **FOUR** questions, each worth 30 marks ....total 120 marks

Paper 1: Veterinary Behaviour

Answer all four (4) questions

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

   a) Define the following:

      i. species-typical behaviour   *(2 marks)*

      ii. abnormal behaviour.   *(3 marks)*

   b) Explain why digging by a dog can be considered both a normal species-specific behaviour and an abnormal behaviour, and why the differentiation is important.
   (15 marks)

   c) Discuss the effects of disease on behaviour. In your answer, provide a brief description of the effects on behaviour of **two (2)** diseases.   *(10 marks)*

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

   a) Discuss premature separation of a kitten from its queen (orphaning). In your answer give examples of possible behaviour problems that may develop and the reasons kittens should stay with their queen for as long as possible.   *(10 marks)*

   b) Compare and contrast the social organisation of cats with the social organisation of sheep.   *(10 marks)*

   c) Compare and contrast the visual perception of the cat with that of the rat. Discuss the potential welfare implications for each species with regard to their visual perception when kept in a laboratory environment.   *(10 marks)*

Continued over page

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

   a) Describe the **two (2)** neural pathways that might be activated by frightening stimuli. Your response should consider any advantage(s) of the two brain pathways.   *(7 marks)*

   b) Describe the mechanism of action and adverse effects of clomipramine, with reference to the neurotransmitters and neuroreceptors affected.   *(13 marks)*

   c) Compare and contrast the mechanisms of action of fluoxetine and diazepam in relieving anxiety. In your answer, include how each medication affects relevant neurotransmitters and neuroreceptors with respect to their therapeutic intent, as well as any adverse effects that may be caused by each medication.   *(10 marks)*

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

   a) Define learning.   *(1 mark)*

   b) Discuss the differences between non-associative learning and associative types of learning. Provide **two (2)** examples for each type of learning.   *(10 marks)*

   c) Define memory. List the primary neurological structures involved in memory and provide a brief explanation of their roles.   *(9 marks)*

   d) Define and discuss fear periods in puppies, including when and why they occur.
                                                                                       (10 marks)

End of paper

Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2021

Veterinary Behaviour

Paper 2

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

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

Answer **ALL FOUR (4)** questions

Answer **FOUR** questions, each worth 30 marks ....total 120 marks

Paper 2: Veterinary Behaviour

Answer all four (4) questions

1.   A 12-year-old, female neutered Border terrier and a two-year-old, female neutered Border terrier are presented after a serious fight that left both requiring treatment at the local emergency centre.

The owners tell you that the older dog has always been uncomfortable with the younger dog being in the home. When the two-year-old was a puppy, she used to jump up and lick the older dog frequently and, until recently, the younger dog always backed down if the older dog growled or there was any contest over toys or food. Now the two-year-old is growling and not giving way to the older dog.

The two dogs have had several growling stand-offs and some fights over toys but, previously, the owners had been able to intervene before there were injuries. The younger dog has now started growling when she sees the older dog and may have started the most recent fight.

Answer **all** parts of this question:

a) Outline an immediate plan for management and initial diagnostic evaluation of these dogs and justify each point you make.   *(6 marks)*

b) List the differential diagnoses for each dog and explain why each differential is included in the list.   *(8 marks)*

c) Describe the behaviour modification and an environmental management programme for managing these dogs. Explain the reasoning behind recommendations provided for each component of your response (behavioural modifications and environmental management).   *(10 marks)*

The younger dog's medical history reveals that she has had two seizures in the past 12 months. You have now diagnosed her with an anxiety disorder.

d) Discuss a medication plan that could be used to manage this dog's anxiety disorder. Justify your choices but you should not specifically address further diagnosis or management of her seizures.   *(6 marks)*

Continued over page

2.	A dairy farmer is experiencing problems getting his milking herd to enter his new rotary dairy and step onto the milking platform. The milking herd has a large number of first-time calvers (heifers) this year. The herd also contains experienced cows and some tame show cows.

Answer **both** parts of this question:

a)	Describe possible causes for the problem of getting the cows to enter the dairy and step onto the milking platform. *(10 marks)*

b)	Discuss environmental and behaviour management strategies that could help get the cattle to enter the rotary dairy and step onto the milking platform.
(20 marks)

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

a)	Discuss why low-stress handling of all animals is vital to the veterinary community and include in your answer, the effects on animals, veterinary clinics and people. *(15 marks)*

b)	Define the human-animal bond and discuss how it can be strained or broken by behavioural problems in a pet. Include in your answer a discussion of the potential consequences of a strained or broken human-animal bond. *(15 marks)*

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

a)	You are a veterinarian working in a zoological park. Design a training programme to allow the visual examination of a primate's mouth across a barrier, by training him to open his mouth on cue. Include the learning principles that should be used and define any learning theoretical terms that are mentioned.
(10 marks)

b)	Discuss the welfare concerns of keeping primates in a zoological park. Include in your answer, a discussion of the constraints of the environment on behaviour and the potential management implications and techniques. *(20 marks)*

End of paper