



# Australian and New Zealand College of Veterinary Scientists

## Membership Examination

June 2017

## Medicine and Surgery of Unusual Pets 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

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# Paper 1: Medicine and Surgery of Unusual Pets

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Answer all four (4) questions

1. Rabbits (*Oryctolagus cuniculi*) in Australasia are at risk of contracting the rabbit haemorrhagic disease virus (calicivirus) and myxomatosis virus. With respect to these viruses:
  - a) Discuss the pathophysiology, transmission and clinical signs of the **two (2)** viruses listed above. (20 marks)
  - b) Discuss prevention strategies that can be used to avoid contracting these pathogens in a pet rabbit situation. (10 marks)
  
2. Answer **both** parts of this question:
  - a) Compare and contrast the reproductive anatomy of the male guinea pig (*Cavia porcellus*), ferret (*Mustela putorius furo*) and rat (*Ratus norvegicus*). (18 marks)
  - b) For **each** species listed in 2 a), briefly discuss a surgical technique for castration, citing anatomical reasons for choosing this approach. (12 marks)
  
3. Answer **both** parts of this question:
  - a) Discuss the use of metronidazole in **three (3)** species. Include in your answer the indication, the dose range, and the route(s) of administration. (15 marks)
  - b) Briefly describe the use of deslorelin in **three (3)** conditions, including the species, indications and any potential side-effects. (15 marks)

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4. For the **three (3)** species listed below, briefly describe:
- the type of diet necessary for the animal,
  - the general nutrient requirements of the species, and
  - provide examples of how these nutrients could be appropriately provided for the animal including recommendations on frequency of feeding and refreshing feed.
- a) Guinea pig (*Cavia porcellus*) (10 marks)
- b) Land hermit crab (*Coenobita variabilis*) (10 marks)
- c) Short-necked turtle (*Emydura* and *Elseya* spp.) (10 marks)

**End of paper**



# Australian and New Zealand College of Veterinary Scientists

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## Medicine and Surgery of Unusual Pets Paper 2

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Answer **ALL FOUR (4)** questions

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# Paper 2: Medicine and Surgery of Unusual Pets

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Answer all four (4) questions

1. Hypothermia is a potential consequence of anaesthesia in small mammals. Discuss the likely causes and physiological consequences of hypothermia in these patients. Outline your plan to manage and prevent hypothermia in the perianaesthetic period in these patients. (30 marks)
  
2. A four-month-old central bearded dragon (*Pogona vitticeps*) presents after the owner noticed a one centimetre piece of tissue protruding from the cloaca. On physical examination, the dragon appears weak and has fine tremors.

Answer **all** parts of this question:

- a) Discuss your approach to diagnosing this patient. (10 marks)
  
  - b) List your differential diagnoses for this patient. (5 marks)
  
  - c) Outline your medical and surgical treatment plan for this patient. (15 marks)
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3. In the following emergency presentations of unusual pets, describe your initial first aid, diagnostic steps and treatment plan:
    - a) Burn on the skin of a carpet python (*Morelia spilota*). (10 marks)
  
    - b) Fracture in the hindlimb of a green tree frog (*Litoria caerulea*). (10 marks)
  
    - c) Injuries to a sugar glider (*Petaurus breviceps*) that was caught in a barbed wire fence. (10 marks)

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4. A one-year-old female spayed ferret (*Mustela putorius furo*) had access to a packet of ibuprofen 200 mg tablets approximately 48 hours ago and has presented with salivation, anorexia and ataxia. You have collected a blood and urine sample and have requested a full biochemistry panel. The following report has been returned from the laboratory:

Analyte	Value
PCV	50%
Albumin	38 g/L
ALKP	23 IU/L
ALT	59 IU/L
TBil	4
BUN	42.3 mmol/L
CREA	73 $\mu$ mol/L
Phos	3.93
Ca	1.93 mmol/L
Glucose	7 mmol/L
Na <sup>+</sup>	131
K <sup>+</sup>	6.8
TP	67 g/L
Globulins	29 g/L
Urine specific gravity	1.012

Answer **all** parts of this question:

- Interpret these results based on the information available at presentation. (8 marks)
- List **two (2)** ancillary tests that would assist in determining prognosis and explain your choice. (2 marks)
- Outline your comprehensive treatment approach in this patient. (20 marks)

**End of paper**