



Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2018

Medicine of Australasian Wildlife Species Paper 1

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

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

Answer **ALL FOUR (4)** questions

Answer **FOUR (4)** questions, each worth 30 marks.....total 120 marks

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Paper 1: Medicine of Australasian Wildlife Species

Answer all four (4) questions

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

a) Answer **both** parts of this sub-question:

- i. Describe the benefits of **and** the steps involved in disease risk analyses for wildlife translocations. (10 marks)
- ii. Provide a list of measures for mitigating disease risk in a koala (*Phascolarctos cinereus*) translocation project. (5 marks)

b) Answer **both** parts of this sub-question:

- i. Provide a list of differential diagnoses for sudden death in an adult free-ranging brush-tailed rock-wallaby (*Petrogale penicillata*) one-month after release from rehabilitation. (5 marks)
- ii. Describe how to investigate such an event including a detailed description of the post-mortem examination. (10 marks)

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

- a) Compare and contrast the pathogenesis, clinical signs **and** treatment of metabolic bone disease in birds and reptiles. (15 marks)
- b) Describe the variations in dental anatomy within the Class Reptilia **and** outline the clinical significance of different categories of reptile dentition. Use Australasian species examples to illustrate your answer. (15 marks)

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

- a) Name the aetiological agent responsible for cryptosporidiosis in snakes **and** describe the clinical signs and diagnosis of this disease. (7.5 marks)
- b) Describe the aetiology and clinical signs of Newcastle disease in columbiform birds. (7.5 marks)
- c) Name the aetiological agent **and** discuss the epidemiology, clinical signs **and** pathology of proventricular dilatation disease in psittacine birds. (7.5 marks)
- d) Describe **and** compare the options for the chemical restraint of a perentie (*Varanus giganteus*). (7.5 marks)

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

- a) Provide a detailed description of the pathogenesis of capture/exertional myopathy in Australasian wildlife. (10 marks)
- b) Outline options for the treatment and prevention of capture/exertional myopathy in captive **and** free-ranging settings, including examples of taxonomic groups with a known predisposition to this condition. (20 marks)

End of paper



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Paper 2

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Paper 2: Medicine of Australasian Wildlife Species

Answer all four (4) questions

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

- a) Compare and contrast the approach to the diagnostic investigation of a multifocal cutaneous lesion in a green tree frog (*Litoria caerulea*) **and** a common brush-tailed possum (*Trichosurus vulpecula*). (20 marks)
- b) Discuss how the administration of therapeutic agents may differ between these two species. (10 marks)

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

- a) List possible causes of infertility, low hatching rates **and** high levels of neonatal mortality in a native passerine conservation breeding programme. (15 marks)
- b) Describe an investigation plan for such a scenario. (15 marks)

3. A dedicated facility for clinical evaluation, hospitalisation and the quarantine of crocodilians and aquatic chelonians is being designed.

Answer **all** parts of this question:

- a) Describe the key features of **and** the required equipment for such a facility that would account for optimal husbandry, disease investigation **and** biosecurity. (10 marks)
- b) Discuss the health and safety risks for personnel working in such a facility **and** provide recommendations for minimising these risks. (10 marks)
- c) Design a quarantine protocol for newly-arrived animals at this facility. (10 marks)

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4. Outline the clinical approach to **each** of the following presentations. Include in your answer a description of the rescue equipment required, the assessment and triage process, relevant welfare and rehabilitation principles **and** the stakeholders involved:
- a) An orphaned southern hairy-nosed wombat (*Lasiorhinus latifrons*) found inside the pouch of a deceased mother on a highway. (10 marks)
 - b) A Maui's dolphin (*Cephalorhynchus hectori maui*) stranded on a beach. (10 marks)
 - c) A tuatara (*Sphenodon punctatus*) caught in a farm fence. (10 marks)

End of paper