



# Australian and New Zealand College of Veterinary Scientists

## Membership Examination

June 2018

## Avian Health (Caged and Aviary Birds) 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: Avian Health (Caged and Aviary Birds)

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Answer all four (4) questions

1. For **each** of the statements below:

- describe the indications for the medication
- list the route(s) of administration
- provide the doses **and** frequency
- list the known adverse effects **and** contraindications

Medications:

- a) Trimethoprim-sulpha use in a budgerigar (*Melopsittacus undulatus*) **and** a backyard laying hen (*Gallus gallus domesticus*). (6 marks)
- b) Itraconazole in a cockatiel (*Nymphicus hollandicus*) **and** an African grey parrot (*Psittacus erithacus*). (6 marks)
- c) Levamisole in a Bourke parrot (*Neopsephotus bourkii*) **and** a finch aviary. (6 marks)
- d) Meloxicam in a cockatoo (*Cacatua* spp.) **and** an amazon parrot (*Amazona* spp.). (6 marks)
- e) Midazolam in a macaw (*Ara* spp.) **and** a canary (*Serinus canaria domestica*). (6 marks)

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

a) Discuss the diagnostic imaging modalities for clinical use in companion avian species that are listed below. Include in your answer:

- common uses/indications
- patient positioning for standard and commonly used views
- limitations
- advantages over the other imaging modalities listed

Answer **all** parts of this sub-question:

i. plain radiography (6 marks)

ii. contrast radiography (6 marks)

iii. ultrasonography (6 marks)

iv. computed tomography. (6 marks)

b) Discuss if anaesthesia or sedation is usually employed to assist with diagnostic imaging of companion avian species **and**, if so, what techniques are recommended. (6 marks)

3. Veterinarians play an important role in preventing the spread of zoonotic disease. For **each** of the diseases below, provide a brief summary, with regard to pathological agent, route of transmission between birds and humans, clinical signs in birds, commonly affected avian species, treatment and zoonotic potential. Include any legislative requirements.

Answer **all** parts of this question:

a) Psittacosis. (10 marks)

b) Salmonellosis. (10 marks)

c) Avian influenza. (10 marks)

**Continued over page**

4. For **each** of the following diseases, list **three (3)** commonly used tests for diagnosis. For **each** test, identify the samples required, briefly describe what **each** test measures **and** briefly discuss the sensitivity and specificity of the test.

Answer **all** parts of this question:

- a) Psittacine beak and feather disease (PBFD). (10 marks)
- b) *Chlamydia psittaci*. (10 marks)
- c) Avian bornavirus. (10 marks)

**End of paper**



# Australian and New Zealand College of Veterinary Scientists

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## Avian Health (Caged and Aviary Birds)

### Paper 2

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Answer **ALL FOUR (4)** questions

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

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## Paper 2: Avian Health (Caged and Aviary Birds)

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Answer all four (4) questions

1. You are going to perform an exploratory coeliotomy and salpingohysterectomy in a hybrid layer hen (that is never to be used for human consumption) with confirmed metritis and reproductive related coelomitis.

Answer **all** parts of this question:

- a) Discuss appropriate medical management of this case prior to surgery. *(6 marks)*
  
- b) Compare and contrast the advantages *(7 marks)* **and** disadvantages *(7 marks)* of the left-lateral versus midline approach for coeliotomy.
  
- c) Describe the anatomical landmarks for the incisions for the left-lateral and midline approach for coeliotomy. *(4 marks)*
  
- d) Describe the surgical procedure for the salpingohysterectomy (the anaesthetic protocol is not required). *(6 marks)*

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

- a) Improper housing and husbandry can have significant adverse effects on wild raptors housed in captivity. Discuss the underlying management factors, implications for future release back to the wild **and** preventative measures that could be considered associated with:
  - i. pododermatitis *(10 marks)*
  
  - ii. feather damage. *(5 marks)*

**Question 2 continued over page**

- b) List **five (5)** other conditions in captive raptors that may occur as a result of problems associated with their husbandry, diet or cage environment when they are hospitalised. List the underlying housing or management factor(s) associated with **each** condition **and** the preventative measures that could be considered. (15 marks)

3. A client's birds are dying in a mixed aviary complex of Neophema parrots and finches, including Zebra finches (*Taeniopygia guttata*), Gouldian finches (*Erythrura gouldiae*) and Blue-faced parrot finches (*Erythrura trichroa*). Several birds are brought in for necropsy. The differential diagnoses include:

- a) Avian gastric yeast. (6 marks)
- b) Gizzard worms. (6 marks)
- c) Yersiniosis. (6 marks)
- d) Heavy metal (zinc/lead) toxicity. (6 marks)
- e) Air sac mites. (6 marks)

For **each** of the above diseases:

- list the gross necropsy findings that are expected
- describe the most appropriate method of confirming a definitive diagnosis
- list the clinical signs, apart from death, that the affected birds will exhibit
- include relative susceptibilities of the different species listed **and** the possible reason(s)
- briefly describe the most appropriate treatment recommendations
- briefly describe any specific husbandry recommendations.

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4. A client presents with a sun conure (*Aratinga solstitialis*) that has a transverse mid-shaft humeral fracture.

Answer **all** parts of this question:

- a) Compare and contrast a conservative method **and** a surgical method for the repair of this fracture. Include in your answer the principles of fracture repair in birds **and** the means by which healing is achieved. (8 marks)
- b) Describe the anaesthetic protocol used for a surgical approach to this fracture repair. Include in your answer, notes on patient preparation, pre-anaesthetic medication, induction, **and** maintenance of anaesthesia and recovery. (8 marks)
- c) Describe the method of surgical repair using a dorsal approach **and** an external fixator tie-in technique, including relevant surgical landmarks, considerations for pin insertion **and** precautions. (8 marks)
- d) Briefly describe **six (6)** important possible complications, **and** how these complications should be managed. (6 marks)

**End of paper**