

Australian College of Veterinary Scientists
Membership Examination

June 2010

Avian Health (Caged and Aviary Birds)

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 (25 marks).

Subsections of questions are of equal value unless stated otherwise.

Paper 1: Avian Health (Caged & Aviary Birds)

Answer four (4) from the six questions only.

- 1) Discuss the pharmacology and use of **four (4)** of the following drugs:
 - a) trimethoprim-sulphonamide
 - b) meloxicam
 - c) voriconazole
 - d) fenbendazole
 - e) butorphanol.

- 2) Describe the anatomy and function of the avian eye. Where applicable, highlight the differences compared to the mammalian eye.

- 3) Describe the pathogenesis, clinical signs and diagnosis of botulism in captive waterfowl.

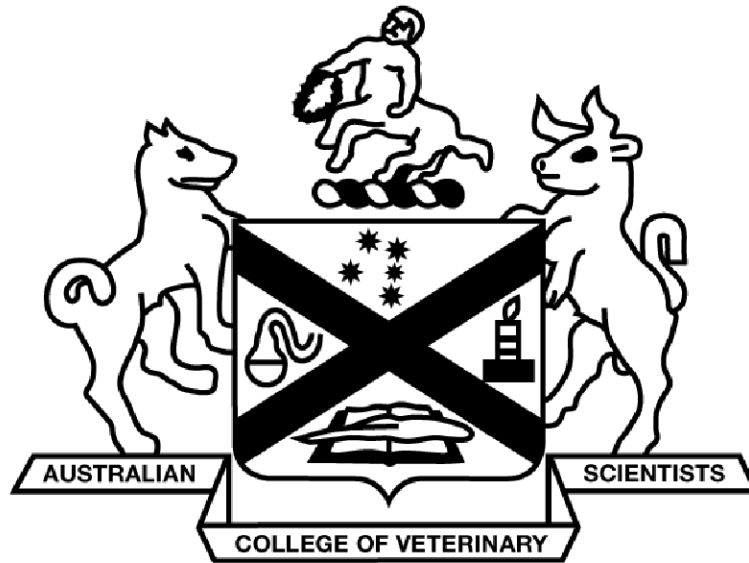
- 4) Answer **each** of the following:
 - a) Describe the anatomy and physiology of egg laying in a female cockatiel. (12.5 marks)
 - b) Discuss the causes and treatments of the following conditions in this species:
 - i. egg yolk peritonitis/coelomitis (6.25 marks)
 - ii. chronic egg laying in a single pet cockatiel. (6.25 marks)

- 5) Discuss the usefulness and limitations of **each** the following diagnostic tests in the diagnosis of avian liver disease:
 - a) serum AST
 - b) serum AP (AlkP)
 - c) radiology
 - d) liver biopsy
 - e) serum bile acids
 - f) serum GGT.

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- 6) Discuss the indications, use and limitations of **each** of the following procedures:
- a) intubation during avian anaesthesia
 - b) intraosseous catheterisation for avian fluid therapy
 - c) nebulisation
 - d) air sac cannulation.

End of paper



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Subsections of questions are of equal value unless stated otherwise.

Paper 2: Avian Health (Caged & Aviary Birds)

Answer four (4) from the six questions only.

- 1) Discuss avian influenza, H5N1. Your answer should address **each** of the following points:
 - a) general information
 - b) the likelihood and significance of the incursion into Australia
 - c) the clinical signs in avian species
 - d) potential zoonotic concerns
 - e) the likely government response.

- 2) Briefly list the diagnostic work-up and list of differentials for **three (3)** of the following conditions. For each of the **three (3)** conditions, choose a likely diagnosis and describe a treatment plan.
 - a) enlarged, ulcerated uropygial gland in a budgerigar (*Melopsittacus undulatus*).
 - b) regurgitation and delayed crop emptying in a five-week-old hand-reared eclectus chick (*Eclectus roratus roratus*)
 - c) a flock of chickens (*Gallus gallus*) with scaling on the featherless area of the legs
 - d) a mixed-species aviary of pigeons with swollen eyes, sneezing and some deaths.

- 3) Describe the anaesthetic regimen for **each** of the following cases. Be certain to include pre-operative, intra-operative and post-operative periods in your answer.
 - a) microchip placement in a blue and gold macaw (*Ara ararauna*) (5 marks)
 - b) humeral fracture repair in a galah (*Cacatua roseicapilla*) (10 marks)
 - c) proventriculotomy to remove a ventricular foreign body in a chicken (*Gallus gallus*). (10 marks)

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- 4) Describe the diagnosis and treatment of **each** of the following diseases:
- Macrorhabdus ornithogaster* (formerly known as Megabacteria or Avian Gastric Yeast) in a show budgie flock
 - gastrointestinal candidiasis in a hand-reared red-tailed black cockatoo (*Calyptorhynchus banksii*)
 - aspergillosis in a pet African grey parrot (*Psittacus erithacus*)
 - coccidiosis in a canary flock.
- 5) A six-month-old weaned green-winged macaw (*Ara chloropterus*) is presented for a two-week history of progressive regurgitation and malodorous stools. The bird has also resorted to begging for hand-rearing formula. List and discuss **each** of the following:
- differential diagnoses (5 marks)
 - diagnostic procedures (10 marks)
 - treatment options and advice to your client. (10 marks)
- 6) An aviculturist presents two young fledged but flightless rainbow lorikeets (*Trichoglossus haematodus*). Closer examination reveals that these birds have lost their primary flight feathers and rectrices. Answer **each** of the following:
- List the following:
 - differential diagnoses (4 marks)
 - diagnostic approach (6 marks)
 - treatment options (4 marks)
 - prognosis and advice to your client. (6 marks)
 - Explain how your advice would differ (if at all) if you were dealing with a single pet lorikeet, kept on its own. (5 marks)

End of paper