



Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2014

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** questions each worth 30 markstotal 120 marks

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Paper 1: Avian Health (Caged and Aviary Birds)

Answer all four (4) questions

1. Describe the gross anatomy of the respiratory tract of a cockatoo (*15 marks*), and relate this anatomy to the physiology of respiration (*15 marks*).

2. Briefly describe the effect of **each** of the following toxins in birds:
 - i. lead
 - ii. iron
 - iii. zinc
 - iv. polytetrafluoroethylene (PTFE – Teflon)
 - v. aflatoxin.

Your answer should include: (*total 30 marks*)

- source (*6 marks*)
- mode of action (*6 marks*)
- clinical signs (*6 marks*)
- diagnosis (*6 marks*)
- treatment. (*6 marks*)

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3. For the following drugs:
- i. meloxicam
 - ii. enrofloxacin
 - iii. itraconazole
 - iv. calcium EDTA
 - v. deslorelin.

List the: *(total 30 marks)*

- indication(s) *(6 marks)*
- route(s) of administration *(6 marks)*
- dose rate and frequency *(6 marks)*
- known adverse effects *(6 marks)*
- contraindications (if applicable). *(6 marks)*

4. Describe the important features of avian bornavirus infection. Your answer should include:
- i. background to the identification of avian bornavirus as an aetiological agent *(2 marks)*
 - ii. disease produced by infection *(4 marks)*
 - iii. species affected *(3 marks)*
 - iv. clinical signs *(6 marks)*
 - v. ante-mortem diagnosis *(4 marks)*
 - vi. histopathological findings *(3 marks)*
 - vii. significance of a positive polymerase chain reaction (PCR) / serology *(3 marks)*
 - viii. treatment *(2 mark)*
 - ix. prevention and control. *(3 marks)*

End of paper



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Paper 2

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Answer **ALL FOUR (4)** questions

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Paper 2: Avian Health (Caged and Aviary Birds)

Answer all four (4) questions

1. Compare and contrast a conservative method and a surgical method for the repair of a transverse mid-shaft tibiotarsal fracture in a cockatoo. In your answer, you should comment on:
 - i. the principles of fracture repair (5 marks)
 - ii. the means by which healing is achieved (5 marks)
 - iii. the relevant anatomy (3 marks)
 - iv. your preferred surgical technique and approaches, equipment, landmarks and precautions (10 marks)
 - v. post-operative care (3 marks)
 - vi. possible adverse outcomes. (4 marks)

2. A large number of terns and shearwaters in a significant but remote site have been affected by a localised oil spill. You have vehicular access for a limited time due to imminent bad weather.

Answer **all** parts of this question:

- a) Discuss initial assessment and triage of affected birds. (10 marks)

- b) List the most likely [pathological] conditions expected in affected birds. (6 marks)

- c) Briefly describe measures recommended for treatment and rehabilitation of conditions identified above. (10 marks)

- d) Identify special considerations of pelagic species that should be known by carers to avoid problems following rehabilitation. (4 marks)

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3. A client has approached you to investigate an infertility problem with a pair of five-year-old Green-winged macaws (*Ara chlorolepterus*). The birds are housed in a bank of suspended aviaries, with other macaws on either side. They are fed seed and nuts and, once weekly, a selection of vegetables and fruits. In the last six months the pair has laid five eggs, which have been collected within 12-hours of laying and artificially incubated. Eggs from other macaws are handled in a similar manner, and have hatched without problems. The eggs from this pair do not hatch, and are discarded by the client after five weeks.

Answer **both** parts of this question:

- a) List the potential causes for this problem. (10 marks)
- b) List the steps you would take, and briefly describe each step, to investigate this problem. (20 marks)

4. You have been presented with a two-year-old female pet chicken with a history of weight loss, coelomic distension and dyspnoea.

List and describe:

- a) Differential diagnoses. (8 marks)
- b) Diagnostic testing. (7 marks)

After initial diagnostic testing, you decide that coeliotomy is indicated:

- c) Discuss coeliotomy in this patient. Include in your answer anaesthesia considerations, surgical approach and procedure, closure, after care and prognosis. (15 marks)

End of paper