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
1. Discuss the use of the drugs listed below in avian medicine. For each drug, include:
   - the indications (2 marks)
   - route(s) of delivery (1 mark)
   - dose rates (1 mark)
   - pharmacokinetics (2 marks)
   - mechanisms of action (2 marks)
   - any known side effects and contraindications (2 marks).

   Where relevant, your answers should reference any variations between avian species.
   (10 marks per drug, total of 30 marks)

   Drugs:
   a) prostaglandin E2
   b) leva
time
   c) nystatin.

2. You are presented with a dead rainbow lorikeet (Trichoglossus haematodus) in an area where there has been an outbreak of necrotic enteritis.

   Answer all parts of this question:

   a) Answer both parts of this sub-question:

      i. Use an appropriately labelled diagram to illustrate the normal gross anatomy of the gastrointestinal system for this bird. (10 marks)

      ii. With reference to diet and gastrointestinal physiology, explain how and why the gastrointestinal anatomy of the rainbow lorikeet differs from that of a pigeon. (10 marks)
b) Briefly explain the aetiology of necrotic enteritis (2 marks) and list the clinical signs of this condition (2 marks).

c) Describe common necropsy and histological changes associated with necrotic enteritis. (6 marks)

3. Answer all parts of this question.

a) You are presented with a gang gang cockatoo (Callocephalon fimbriatum) from a local wildlife park. This bird comes from an aviary where mycobacteriosis has been previously diagnosed.

Answer all parts of this sub-question:

i. Describe the common clinical presentation of this disease in this scenario. (3 marks)

ii. Indicate samples required and appropriate diagnostic tests to confirm the diagnosis. Comment briefly on the suitability of each test. (4 marks)

iii. Provide a management plan for the keeper for control and prevention of mycobacteriosis in this scenario. (8 marks)

b) You are presented with a 12-week-old eclectus parrot (Eclectus roratus) by a breeder presently hand rearing 20 birds (including macaws, eclectus and conure species) that he has bred himself. The breeder is concerned the bird has polyomavirus.

Answer all parts of this sub-question:

i. Describe the common clinical presentation of this disease in this scenario. (3 marks)

ii. Indicate samples required and appropriate diagnostic tests to confirm the diagnosis. Comment briefly on the suitability of each test. (4 marks)

iii. Provide a management plan for the breeder for control and prevention of polyomavirus in this scenario. (8 marks)

Continued over page
4. A local zoo keeps gentoo penguins (*Pygoscelis papua*). They are concerned that one bird is showing signs of respiratory disease which the keeper is concerned might be due to aspergillosis. You are given permission to:

- perform haematology and blood biochemistry,
- take radiographs under general anaesthesia, and
- perform an endoscopic examination under general anaesthesia.

Answer **both** parts of this question:

a) Describe in detail how you would perform the above **three (3)** tests in this situation.  

   *(12 marks)*

b) Discuss the expected findings from **each** of the **three (3)** tests in a bird with aspergillosis and explain how **each** test helps you diagnose aspergillosis. Include in your answer any limitations of **each** test in confirming a diagnosis of aspergillosis.  

   *(18 marks)*

---

**End of paper**
Membership Examination
June 2017

Avian Health (Caged and Aviary Birds)
Paper 2

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
Answer all four (4) questions

1. You are presented with a budgerigar (*Melopsittacus undulatus*) flock experiencing a high number of deaths. Weight loss and stained vents are predominate clinical signs. The loft is fed a dry seed mix and greens are fed daily.

   Answer all parts of this question:

   a) List ten (10) possible differential diagnoses. (5 marks)

   b) Describe an appropriate diagnostic process, including appropriate sample collection, to confirm a diagnosis for five (5) of the conditions you have listed. (5 marks)

   c) Assuming a fungal or bacterial aetiology, describe characteristic findings on in-house diagnostic procedures offered. (10 marks)

   d) List drug(s) of choice and method of administration for the five (5) common conditions nominated in part 1 b) as differential diagnoses. (10 marks)

2. You have a cockatiel with suspected egg binding. She is six-years-old and has been an avid layer. She has always been on a seed based diet supplemented with occasional vegetables and human foods. On examination a calcified egg is palpable in the abdomen

   Answer all parts of this question:

   a) Identity six (6) concurrent problems which may be present in this case. (6 marks)

   b) List appropriate diagnostic procedures that should be offered to the owner. (4 marks)

   c) Provide five (5) medical/surgical options to treat this bird and briefly discuss their relative benefits. (10 marks)

   d) List medical, surgical and management strategies to prevent egg binding and briefly discuss their relative merits. (10 marks)

   Continued over page
3. You are presented with a companion chicken with respiratory disease. She was purchased at point of lay with three other hens from a produce store within the last month. All four birds have developed open mouth breathing, nasal discharge and sneezing. This bird is now also lethargic and has reduced appetite.

Answer all parts of this question:

a) List probable diagnoses for this bird’s condition. (8 marks)

b) Identify and describe diagnostic procedures that should be used to assess these possible diagnoses. (12 marks)

c) Provide appropriate advice for the owner regarding immediate therapy and management of these birds pending results of diagnostic tests. (6 marks)

d) Outline advice that should be provided to this client regarding future purchase of chickens. (4 marks)

4. A client presents with a sulphur crested cockatoo (Cacatua galerita) with scissor beak. This bird has been hand raised and was purchased two weeks prior to presentation at 12-weeks of age.

Answer all parts of this question:

a) List possible underlying causes of this condition. (4 marks)

b) Describe a non-surgical option for treating this condition and discuss factors that influence the success of non-surgical correction. (6 marks)

c) Explain surgical techniques available to repair the scissor beak. Include anaesthetic protocol, pre- and post- surgical management and therapy. (20 marks)

End of paper