



**AUSTRALIAN AND NEW ZEALAND
COLLEGE OF VETERINARY SCIENTISTS**

Sample exam questions

Veterinary Practice (Equine)

Written Examination (*Component 1*)

Written Paper 1 (two hours): Principles of Veterinary Practice
EIGHT (8) questions of 15 marks each with mark allocation for any sub-questions indicated.

Written Paper 2 (two hours): Applied Veterinary Practice
FOUR (4) questions of 30 marks each with mark allocation for any sub-questions indicated.



Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2018

Veterinary Practice (Equine)

Paper 1

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

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

Answer **ALL EIGHT (8)** questions

Answer **EIGHT** questions each worth 15 markstotal 120 marks

Paper 1: Veterinary Practice (Equine)

Answer all eight (8) questions

1. Outline (using bullet points if you wish) general principles that guide prudent and rational antimicrobial use in the management of wounds and traumatic injuries in horses. *(15 marks)*

2. Answer **both** parts of this question:
 - a) Describe the relationships between the deep digital flexor tendon and other structures within the deep digital flexor tendon sheath in the equine distal limb. The use of an appropriately labelled diagram(s) is encouraged. *(6 marks)*

 - b) List **three (3)** methods used for further investigation of lameness that has been localised to the digital flexor tendon sheath and describe the diagnostic advantages and disadvantages of **each** method. *(9 marks)*

3. For **each** of **three (3)** diagnostic techniques that can be used for the diagnosis of equine respiratory tract disease, discuss the indications and limitations for their use. For **each** technique, provide an example of a disease process where its use would be essential to make a correct diagnosis. *(15 marks)*

4. Discuss the indications and limitations of **both** options provided in **each** of the following scenarios:
 - a) Enteral or intravenous fluid therapy for a large colon impaction. *(5 marks)*

 - b) Open or closed castration in a two-year-old Standardbred colt. *(5 marks)*

 - c) Rectal exam or ultrasound for the diagnosis of colic. *(5 marks)*

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5. The use of vaccination programs is an important component of equine preventative health management. For **each** of **two (2)** diseases for which there is a commercially available vaccine in your region, provide the following information: *(15 marks)*
- the underlying pathogenesis of the disease
 - the vaccination protocol for naive horses
 - the common clinical signs of the disease.
6. Sarcoids and squamous cell carcinoma in horses can have similar presentations. Discuss how these two diagnoses can be differentiated on clinical presentation and further diagnostics. Compare and contrast appropriate treatment options for these two conditions. *(15 marks)*
7. Answer **both** parts of this question:
- a) Identify biosecurity issues which must be considered when approaching the examination of a horse with upper respiratory clinical signs which is being examined on the Gold Coast, Queensland. *(9 marks)*
- b) If a horse has a unilateral nasal discharge and this is suspected to be associated with sinus disease, describe how you would confirm your diagnosis with reference to dental anatomy and radiographic features. *(6 marks)*
8. Answer **all** parts of this question:
- a) Describe restraint techniques, sedation and local anaesthetic protocols that facilitate thorough evaluation of the eye and associated structures. *(6 marks)*
- b) Discuss an appropriate treatment plan for an uncomplicated corneal ulcer including a brief description of the mechanism of action and indications for use of any medications recommended in your plan. *(7 marks)*
- c) Name **one (1)** parasite which can infect the equine eye and describe the route of infection. *(2 marks)*

End of paper



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June 2018

Veterinary Practice (Equine)

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 markstotal 120 marks

Paper 2: Veterinary Practice (Equine)

Answer all four (4) questions

1. An 18-year-old Welsh mountain pony mare used for showing and carriage driving is presented to you with recurrent laminitis. The last two episodes were four months apart.

Answer **all** parts of this question:

- a) Discuss factors which may be important in contributing to laminitis in this pony. *(15 marks)*
- b) Describe the radiographic features of laminitis. Include in your answer measurements and/or calculations that can be performed on a lateral-medial radiograph of the foot and pastern. A diagram may be used. *(10 marks)*
- c) Excluding non-steroidal anti-inflammatory drugs, briefly discuss analgesia options which may be implemented in this case. Assume the owner is willing to hospitalise the horse if required. *(5 marks)*

2. A 10-year-old Thoroughbred gelding has experienced bouts of abdominal pain with increasing frequency and intensity over the last five days.

Answer **both** parts of this question:

- a) List the **five (5)** most common causes of recurrent colic in this horse. *(5 marks)*
- b) Describe a rational diagnostic process, including justification **and** expected findings, to investigate the abdominal pain in this horse. (Assume you are at a well-equipped equine veterinary hospital). *(25 marks)*

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3. You are presented with a 10-day-old foal with acute onset severe lameness and generalised swelling and effusion of the right metacarpophalangeal joint.

Answer **all** parts of this question:

- a) Describe an appropriate investigation of this case. Include in your answer an appropriate protocol for both sedation and general anaesthesia of the foal to complete this evaluation. *(10 marks)*
 - b) List the **three (3)** most likely differential diagnoses and rank them from the most to least likely. *(4 marks)*
 - c) Assuming your first differential diagnosis listed in part (b) is the cause of the lameness, describe and justify optimal management of this case. *(16 marks)*
4. An 18-year-old Thoroughbred maiden mare has presented to you for management of artificial insemination at the start of the breeding season.

Answer **all** parts of this question:

- a) Discuss management and hormonal interventions available to induce oestrus early in the breeding season. *(10 marks)*
- b) Describe an appropriate protocol if the owner wishes to use cooled shipped semen to breed the mare. Include any medications, their protocol for timing and procedures for insemination. *(10 marks)*
- c) Twelve hours post artificial insemination, you identify a moderate amount of anechoic fluid within the uterus. Discuss differential diagnosis, treatment and monitoring for this mare. *(10 marks)*

End of paper