



Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2021

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

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Paper 1: Veterinary Practice (Equine)

Answer all eight (8) questions

1. Answer **all** parts of this question:

- a) Describe the clinical investigation of a horse that is suspected of being a cryptorchid. Include diagnostic imaging and laboratory testing in your answer. *(7 marks)*
- b) List **four (4)** common complications that can follow castration in the field under general anaesthesia. *(2 marks)*
- c) For **one (1)** complication identified in 1 b), briefly discuss the management of that complication. *(6 marks)*

2. For an acute five centimetre laceration on the dorsal aspect of the fore fetlock, discuss: *(15 marks)*

- assessment of the wound, and
- initial wound management.

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

- a) List **three (3)** important vaccinations for a 10-year-old Warmblood showjumper that is housed alone on the east coast of Australia and attends competitions. Briefly justify your choice of vaccinations. *(6 marks)*
- b) Outline the key principles to consider when formulating a nutrition plan for the following scenarios. In your answer, explain the key components of an optimal diet for the animal and give examples of feeds that satisfy these requirements.
 - i. three-year-old, overweight Shetland pony with laminitis *(5 marks)*
 - ii. twenty-five-year-old Arabian horse in poor body condition, recovering from a tooth extraction. *(4 marks)*

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4. Discuss the diagnosis of **both** of the following conditions. Your answer should include the most appropriate primary diagnostic test, including any limitations of that test:
- a) Pituitary pars intermediary dysfunction (PPID). *(7.5 marks)*
 - b) Equine metabolic syndrome. *(7.5 marks)*
5. Discuss **three (3)** challenges of general anaesthesia of horses under field conditions. Briefly discuss any strategies that can be employed to minimise risks associated with the identified challenges. *(15 marks)*
6. Answer **all** parts of this question:
- a) List **three (3)** possible causes for non-weight-bearing lameness with toe drag in a forelimb. *(3 marks)*
 - b) Discuss diagnostic techniques that are appropriate for localising and diagnosing the cause of the lameness. *(7 marks)*
 - c) Describe or use an appropriately labelled diagram to show: *(5 marks)*
 - the location of needle placement for a low four-point nerve block
 - the nerves desensitised by this nerve block
 - other structures desensitised by this nerve block.

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7. Answer **all** parts of this question:

- a) Describe the changes likely to be found on physical exam and routine haematology/biochemistry testing for an adult horse with an acute onset of severe diarrhoea. (6 marks)
- b) List the important components of the first 24 hours of management of acute, severe diarrhoea in an adult horse. In your answer, assume that there are no financial constraints to treatment and that hospitalisation is possible. (6 marks)
- c) Choose **one (1)** important component of your recommended treatment and justify why this is an important part of the therapy. (3 marks)

8. Answer **all** parts of this question:

- a) List structures that are palpable via rectal examination in a normal adult mare. (3 marks)
- b) List **two (2)** imaging modalities that could be useful in examining the abdomen of a horse with colic. For each, describe the limitations of the modality and how they may be useful in examining the case. (6 marks)
- c) List and briefly describe **six (6)** clinical examination findings or diagnostic test results that are useful in determining if a horse with colic requires surgical intervention. (6 marks)

End of paper



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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

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Paper 2: Veterinary Practice (Equine)

Answer all four (4) questions

1. A three-day-old Quarter horse colt that is dull and not nursing is presented to an equine clinic.

Answer **both** parts of this question:

- a) List **four (4)** differential diagnoses relevant to this presentation and describe the initial investigation of this foal. In your answer include any relevant laboratory testing and diagnostic imaging. *(20 marks)*
- b) The foal is diagnosed with neonatal isoerythrolysis. Describe the management of this foal. Explain what each management step will achieve or justify why it is an important part of this foal's management. *(10 marks)*

2. A 10-year-old Thoroughbred eventer is examined for poor performance. The rider reports that the horse performs well at the start of the cross-country phase, but then slows down and fails to finish. A physical examination of the horse at rest has been performed and does not reveal any abnormalities.

Answer **all** parts of this question:

- a) Discuss the role of dynamic studies, such as treadmill or over-ground studies, in the investigation of this case. In your answer, give examples of conditions that may be diagnosed using dynamic studies. *(14 marks)*
- b) Briefly explain how atrial fibrillation causes poor performance. *(7 marks)*
- c) List **two (2)** electrocardiographic (ECG) features of atrial fibrillation. You may use an illustration for your answer. *(2 marks)*
- d) Briefly describe the treatment options for atrial fibrillation and the possible outcomes of treatment. *(7 marks)*

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3. You have been asked to examine a six-year-old Thoroughbred showjumper that has had a cough and mucous nasal discharge for the past four weeks. The horse has been otherwise well.

Answer **all** parts of this question:

- a) List the important questions to ask when taking the history of this horse. Provide a brief explanation of why each question is important or how the answers will further inform the diagnostic investigation of this case. *(5 marks)*
 - b) Briefly discuss the components of a clinical examination and specific diagnostic procedures that will be important to further investigate the case. *(10 marks)*
 - c) A bronchoalveolar lavage sample taken from the horse at the time of presentation revealed cytological findings consistent with equine asthma (lower airway inflammation). Outline your initial and ongoing management of this condition in a competition horse. *(15 marks)*
4. A five-year-old Thoroughbred presents the day after racing with an acute onset, grade 4/5 lameness and a soft swelling in the distal palmar metacarpal region.

Answer **all** parts of this question:

- a) List the structures that may be involved in causing the clinical signs. *(7 marks)*
- b) Describe a logical, diagnostic approach to localise the cause of the lameness. *(10 marks)*
- c) Describe the appropriate management of an acute, superficial digital flexor strain injury. *(13 marks)*

End of paper