



The Australian and New Zealand
College of Veterinary Scientists

Membership Examination

June 2012

Medicine of Horses

Paper 1

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

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

Answer your choice of any **FOUR (4)** questions from the five questions **ONLY**

All five questions are of equal value

Answer **FOUR** questions each worth 25 markstotal 100 marks

Paper 1: Medicine of Horses

Answer your choice of any **FOUR (4)** questions from the five questions **ONLY**.

1. Discuss in detail, the nutritional management of each of the following horses. Include in your answer the pathophysiology of the disease and how that influences the feeding regimen of the horse:
 - a) an eight-year-old obese pony with equine metabolic syndrome (13 marks)
 - b) a 15-year-old horse with chronic renal failure. (12 marks)

2. Outline the pathophysiology of disease caused by each of the following conditions in the horse, **and** describe in detail your preferred method(s) of diagnosis including the limitations of **each** method:
 - a) pituitary pars intermedia dysfunction (9 marks)
 - b) developmental cervical vertebral myelopathy (8 marks)
 - c) granulosa theca cell neoplasia. (8 marks)

3. Answer **all** subparts of this question:
 - a) Discuss the use of ultrasonography and radiography for the diagnosis of lower respiratory tract disease in the horse. Include in your answer indications and limitations of **each** technique. (13 marks)
 - b) Discuss the use of ultrasonography and rectal palpation for the diagnosis of abdominal disease in the horse. Include in your answer indications and limitations of **each** technique. (12 marks)

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4. The vestibular system has an important role to play in the normal functioning of the horse.
- a) Briefly describe the role of the vestibular system in the horse. *(5 marks)*
 - b) List the clinical signs in acute unilateral peripheral vestibular disease and explain their pathophysiology. *(10 marks)*
 - c) List **four (4)** possible aetiologies of peripheral vestibular disease. For **one (1)** of these aetiologies discuss how you would confirm your diagnosis. *(10 marks)*
5. Auscultation is an important diagnostic tool in the initial assessment of cardiac disease in horses.
- a) Briefly describe the generation of normal cardiac sounds in the horse. *(5 marks)*
 - b) For **each** of the following scenarios state the most likely cardiac condition; **and** for the most likely condition, describe further diagnostic information/techniques that would confirm and determine the severity of this provisional diagnosis.
 - i. A 17-year-old retired endurance horse (quarter horse), with a regular heart rate (40bpm) and a left-sided, grade 3/6 holodiastolic, harsh, decrescendo heart murmur with point of maximum intensity at the 5th intercostal space. Auscultation of the right-side heart was within normal limits. *(10 marks)*
 - ii. A poorly grown Standardbred weanling with a regular heart rate (36 bpm) and a grade 4/6, harsh, pansystolic murmur which is audible loudest below the tricuspid valve region. When auscultated on the left a 3/6, holosystolic murmur, with the point of maximum intensity at the left base is audible. *(10 marks)*

End of paper



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Paper 2

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All five questions are of equal value

Answer **FOUR** questions each worth 25 marks total 100 marks

Paper 2: Medicine of Horses

Answer your choice of any **FOUR (4)** questions from the five questions **ONLY**.

1. Equine colic can often be successfully managed medically. For **each** of the following conditions discuss the medical treatment options available that are supported within the veterinary literature; within your answer state your reasoning for selecting your preferred treatment option for each condition:
 - a) pelvic flexure impaction that is moderately large and indentable on rectal palpation (8 marks)
 - b) nephrosplenic entrapment of the large colon (8 marks)
 - c) gastroduodenal ulceration syndrome in a weanling Thoroughbred colt. (9 marks)

2. Inflammatory airway disease (IAD) is a common cause of poor performance in the horse.
 - a) List the common signalment(s) and clinical signs of IAD. (5 marks)
 - b) List the differential diagnoses and the diagnostic techniques useful in differentiating them. (5 marks)
 - c) State the diagnostic technique you consider to be the most important in the differential diagnosis of IAD and describe in detail how you would perform it. Indicate findings that would support a diagnosis of IAD. (8 marks)
 - d) Describe in detail how you would manage a top-level eventing horse with IAD (ensuring compliance with controlled medication regulations). (7 marks)

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3. Headshaking in the horse is a frustrating clinical sign for owners and veterinarians.
- Describe in detail how you would investigate a horse with head-shaking. Assume your client has no financial limitations and you practice in a well-equipped facility (but **without** access to CT or MRI). *(10 marks)*
 - List the findings of your diagnostic investigation that would be consistent with a diagnosis of trigeminal neuritis. *(5 marks)*
 - Describe in detail how you would manage a horse diagnosed with trigeminal neuritis. *(10 marks)*
4. A five-year-old non-pregnant brood mare presents to your well-equipped clinic three hours after a severe laceration to its leg. The bleeding has largely been controlled and the horse is 1/5 lame but appears weak and occasionally stumbles. The horse has pale mucous membranes and a heart rate of 80 beats per minute. You are very concerned about the amount of blood that has been lost.
- Describe how you would manage this patient. Include your approach to the investigation of acute blood loss in this patient and list treatment options. *(10 marks)*
 - You decide to transfuse this horse with blood. Describe your method of collection and transfusion of fresh whole blood to your patient. *(10 marks)*
 - List the possible clinical complications associated with blood transfusions in equids. *(5 marks)*
5. A Thoroughbred colt is presented to your clinic at three days of age. He has been straining to urinate and reluctant to nurse. You notice his abdomen is distended and you are concerned that the foal may have a ruptured bladder.
- Outline the steps that you would take to investigate this case. Discuss the important findings in each of the tests/procedures you choose to perform that would support a diagnosis of ruptured bladder. *(13 marks)*
 - You confirm that the foal has a ruptured bladder. Discuss your approach to management of this foal prior to anaesthesia for surgical intervention. *(12 marks)*

End of paper