



Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2018

Surgery of Horses

Paper 1

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

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

Answer **ALL FOUR (4)** questions

Answer **FOUR (4)** questions, each worth 30 marks.....total 120 marks

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Paper 1: Surgery of Horses

Answer all four (4) questions

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

- a) Briefly describe the most important principles of fluid therapy for the following scenarios, focusing your answer on treatment rather than physiology:

Answer **all** sub-parts of this question:

- i a horse being prepared for colic surgery (pre-operative) (5 marks)
 - ii an adult horse with a large colon impaction (5 marks)
 - iii a foal with a ruptured bladder. (5 marks)
- b) With reference to specific anatomy, name the most common site of impaction in the gastrointestinal tract of a horse **and** explain why impactions commonly occur at this location. (5 marks)
- c) After medically treating a large colon impaction for 24 hours, what clinical and diagnostic parameters would you monitor **and** what changes in these should influence the decision of whether or not to take the horse to surgery? (10 marks)

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

- a) Describe the musculature **and** innervation involved in the abduction of the arytenoid cartilages. *(10 marks)*
- b) Name the most common condition that results in a loss of arytenoid abduction. Briefly outline the aetiology of this condition **and** why it predominantly occurs unilaterally. *(10 marks)*
- c) Explain how the loss of abduction results in the increased respiratory noise associated with this condition, **and** discuss how **and** why this noise differs to that usually caused by dorsal displacement of the soft palate. *(10 marks)*

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

- a) Name the **three (3)** main predilection sites for osteochondritis dissecans (OCD) in the hock **and**, of these, state which is the most common. *(5 marks)*
- b) Discuss the aetiologic factors involved in the development of OCD in horses. *(10 marks)*
- c) Explain why the assessment of the severity of OCD lesions often differs when based on radiographs, compared to what is found during arthroscopy. *(8 marks)*
- d) Briefly discuss the principles of the optimal surgical management of OCD. *(7 marks)*

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

- a) Discuss the important points regarding how to prevent surgical site infection for an elective abdominal surgery with a horse under general anaesthesia. Focus your description on the period of time from just before induction until the surgery commences. *(10 marks)*

- b) Name the most commonly involved organism in iatrogenic septic arthritis **and** discuss why it often presents as a challenge, with respect to treatment. *(5 marks)*

- c) Discuss why it is generally not advised to perform primary closure on a tracheostomy site. Name the classification of this wound, based on the degree of contamination. *(6 marks)*

- d) In equine wound management, suture tension is a common issue that the clinician is faced with. Briefly describe **three (3)** tension-relieving surgical techniques commonly used for wound closure. *(9 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: Surgery of Horses

Answer all four (4) questions

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

- a) Briefly describe **and** explain the clinical signs **and** history that you would expect to see in a gelding with a bladder stone. *(8 marks)*
- b) List the **three (3)** most important diagnostic procedures that would help to diagnose cystolithiasis **and** write brief notes on **each**. *(6 marks)*
- c) You have diagnosed a four centimetre bladder stone in the gelding. Discuss **two (2)** different surgical approaches for removal of the stone, including a comparison of the advantages **and** disadvantages of **each** approach. *(16 marks)*

2. A 10-year-old Australian stock horse gelding is presented for the evaluation of a persistent, right-sided serosanguinous nasal discharge that has been present for three weeks.

Answer **all** parts of this question:

- a) Describe a complete diagnostic work-up without economic constraints. *(15 marks)*
- b) Describe the optimal surgical treatment for a sinus cyst in the caudal maxillary sinus. *(10 marks)*
- c) List **five (5)** other common differential diagnoses that may cause this presentation. *(5 marks)*

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- 3 A 15-year-old Warmblood mare presents with a three-fifths (3/5) right front limb lameness. The owner reports eight months of progressive worsening of the lameness and has recently noted a slight improvement during a trial treatment period of the administration of phenylbutazone.

Answer **all** parts of this question:

- a) Discuss a detailed clinical approach to work-up this lameness, **excluding** diagnostic imaging and regional anaesthesia. (12 marks)
 - b) During the examination, you perform an abaxial digital nerve block. Describe the landmarks for this nerve block, **and** state the anaesthetic agent **and** volume that you would use for this nerve block. Include a brief justification for your choices. (7 marks)
 - c) Radiographs reveal evidence of advanced osteoarthritis of the proximal interphalangeal joint. Describe the common radiographic findings associated with this condition. (6 marks)
 - d) List **three (3)** different medications or products that could be indicated for the intra-articular treatment of osteoarthritis in horses. (3 marks)
 - e) Name the most commonly performed surgical option for the treatment of severe proximal interphalangeal joint osteoarthritis in horses. (2 marks)
4. A client has rescued a three-year-old Thoroughbred male with no known history. The horse has no visible testicles, but has recently been displaying stallion-like behaviour.

Answer **both** parts of this question:

- a) Describe a comprehensive clinical examination and further diagnostic work-up of this case. (15 marks)
- b) List **three (3)** surgical options available for a unilateral cryptorchid castration **and** discuss the advantages **and** disadvantages of **each** option. (15 marks)

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