



Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2012

Surgery of Horses

Paper 1

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

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

Answer your choice of any **FIVE (5)** questions from the six questions **ONLY**

All questions are of equal value

Answer **FIVE** questions each worth 25 markstotal 125 marks

Paper 1: Surgery of Horses

Answer five (5) questions from the six questions.

1. Briefly describe and justify the type and size of suture material and the suture patterns you would use for **each** of the following:
 - a) a prosthesis for laryngoplasty. (5 marks)
 - b) closure following a glossectomy. (5 marks)
 - c) to reconstruct a contaminated displaced heel bulb laceration. (5 marks)
 - d) to close a ventral midline abdominal incision in an adult. (5 marks)
 - e) for closure of the bladder following removal of a calculus. (5 marks)

2. Answer **both** subparts of this question.
 - a) Describe in detail how you would approach the localisation of lameness to the foot/pastern region in the horse; outlining how you would evaluate the gait, and the tests you would use to help you to localise the lameness with specific reference to the use of diagnostic analgesia. (12½ marks)
 - b) Describe in detail how you would perform a radiographic study of the hoof; including preparation, radiographic positioning, views, technique and potential limitations of radiography in this region. (12½ marks)

Continued over page

3. Management of complications is an important part of veterinary surgery. Briefly discuss your management of the following complications.
- a) Excessive coughing following prosthetic laryngoplasty. (5 marks)
 - b) Haemoabdomen post-operatively after small intestinal resection anastomosis. (5 marks)
 - c) Caecal impaction after repair of a condylar fracture. (5 marks)
 - d) Endotoxaemia following correction of colon torsion. (5 marks)
 - e) Septic osteomyelitis following double plate repair of a comminuted P2 fracture in the forelimb of an adult horse. (5 marks)
4. Intravenous fluid therapy is commonly used for resuscitation in horses. List **three (3)** commonly used *types* of fluid, the rate at which you would administer them and how they affect the expansion of blood volume. (25 marks)
5. Answer **all** subparts of this question.
- a) Bone grafts are commonly used in orthopaedic surgery. Briefly describe the function of bone grafts and list **two (2)** acceptable donor sites in the horse. (10 marks)
 - b) List **three (3)** requirements for Haversian remodelling to occur at a fracture site. (5 marks)
 - c) Describe how you would monitor a patient for signs of osseous infection following internal fixation of an ulnar fracture in an Arabian weanling. (10 marks)
6. Answer **both** subparts of this question.
- a) Cryosurgery is commonly used to treat cutaneous lesions in horses. Describe how cryosurgery works on a cellular scale with reference to the temperatures required to achieve cell death. (15 marks)
 - b) Briefly describe **two (2)** cryosurgery techniques and list **three (3)** skin conditions that are amenable to cryosurgery. (10 marks)

End of paper



Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2012

Surgery of Horses Paper 2

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

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

Answer your choice of any **FIVE (5)** questions from the six questions **ONLY**

All questions are of equal value

Answer **FIVE** questions each worth 25 markstotal 125 marks

Paper 2: Surgery of Horses

Answer five (5) from the six questions only.

1. You are presented with a 22-year-old Arabian gelding used for occasional pleasure riding with a suspected intraocular melanoma.
 - a) Discuss your diagnostic approach and justify your choice of surgical treatment of this case. *(12½ marks)*
 - b) Describe your preferred approach to enucleation in the horse. *(12½ marks)*

2. A 5-year-old male warmblood presents with a history of aggressive stallion-like behaviour, but no external evidence of testicles within the scrotum. His castration history is unknown.
 - a) Discuss your diagnostic options to ascertain the presence or absence of testicular tissue in this case. *(15 marks)*
 - b) Presuming your above diagnostics prove the presence of testicular tissue, describe and justify your preferred surgical approach. *(10 marks)*

3. Answer **both** subparts of this question.
 - a) Outline in detail how you would perform an exploratory laparotomy from incision through to the time that horse is moved into the recovery stall. *(15 marks)*
 - b) When is a pelvic flexure indicated during exploratory celiotomy? Describe in detail how to perform this procedure. *(10 marks)*

Continued over page

4. You are presented with a Thoroughbred racehorse that makes respiratory noise during galloping.
- Outline your diagnostic approach to determining the cause of the problem and list **five (5)** possible causes of upper airway obstruction. *(10 marks)*
 - For **three (3)** of these conditions, briefly describe the surgical treatment of choice. *(15 marks)*
5. A 10-year-old Appaloosa gelding is presented with a wound over the dorso-lateral aspect of the left metacarpo-phalangeal joint. The wound occurred approximately 48 hours ago and the horse is grade 4/5 lame on the affected limb.
- Briefly describe how you would approach this case to determine the optimal course of treatment. *(5 marks)*
 - List laboratory values that would lead you to suspect synovial sepsis. *(5 marks)*
 - Assuming that the metacarpo-phalangeal joint has been penetrated based on the results of your diagnostic tests and laboratory results, describe in detail your recommendations for treatment of the patient. *(10 marks)*
 - Describe in detail how you will monitor this patient for resolution of synovial sepsis and the development of complications following surgery. *(5 marks)*
6. Define a third degree perineal laceration with reference to the structures involved as well as the proposed causes. List **two (2)** techniques for repair including your choice of suture material and patterns, and when you would attempt to perform surgery after the injury. *(15 marks)*

In addition, discuss factors associated with failure of surgical repair and list methods that you would employ to maximise the chance of a successful outcome. *(10 marks)*

End of paper