



Australian College of Veterinary Scientists

Membership Examination

June 2011

Equine Dentistry

Paper 1

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

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

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

All six main questions are of equal value

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

Paper 1: Equine Dentistry

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

1. Discuss the commonly used dental restorative materials: amalgam, composites and glass ionomers. Include in your answer reference to the advantages and disadvantages of each material. *(25 marks)*

2. Discuss **each** of the following:
 - a) embryological development of the tooth *(10 marks)*
 - b) sequence of tooth eruption in the horse *(5 marks)*
 - c) structure of different dental tissues in the horse. *(10 marks)*

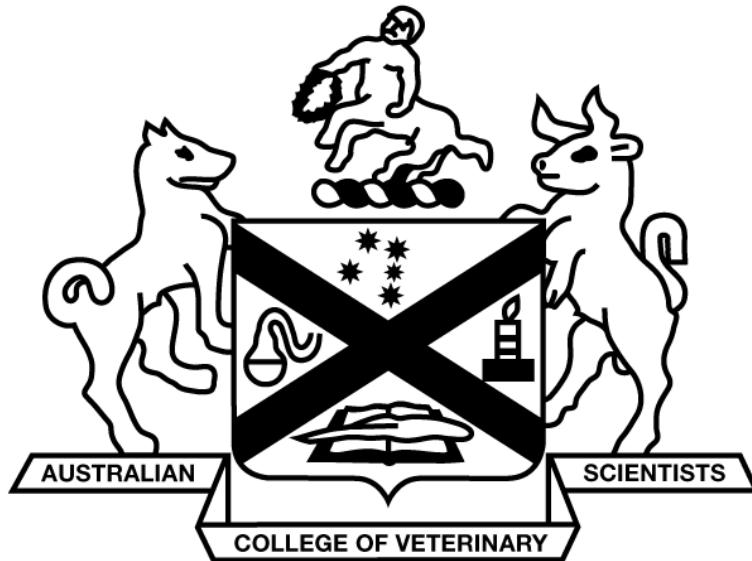
3. List the commonly found tumours and tumour-like disorders associated with the oral cavity and dental tissues of the horse with details of their clinical appearance, predilections and clinical behaviour. *(25 marks)*

4. Periodontal disease is an important disease of all companion animals. Describe its aetiology and pathogenesis, and the treatments (including preventative) that are available for the horse. *(25 marks)*

5. Diagnosis of diseases of the equine oral cavity often requires the use of radiology. Describe and compare different radiological techniques used to obtain diagnostic images in the standing horse. Include in your answer reference to the advantages and disadvantages of each technique used. *(25 marks)*

6. Traumatic injuries from kicks or crashes are not uncommon in young horses and can involve both the soft and hard tissues of the rostral oral cavity and include fractures to the crowns of incisor teeth. Briefly outline **each** of the following:
 - a) how you would perform direct pulp capping, including tissue repair mechanisms *(10 marks)*
 - b) sequelae of tooth extraction *(5 marks)*
 - c) techniques for regional anaesthesia of incisor teeth *(5 marks)*
 - d) management of wounds of the associated soft tissues: specifically, contaminated mucosal laceration of upper lip. *(5 marks)*

End of paper



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Paper 2

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Answer your choice of any **FOUR (4)** questions from the six questions **ONLY**
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Answer **FOUR** questions each worth 25 marks total 100 marks

Paper 2: Equine Dentistry

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

1. The owner of a seven-year-old donkey gelding brings him into your clinic as someone has just noticed he has two large maxillary wolf teeth, one of which is fractured just above the gum line. The donkey is used for carriage work and is constantly chewing on his bit. The owner asks for these wolf teeth to be removed.

Describe your approach to this case, including treatment protocols and aftercare advice to the owner. *(25 marks)*

2. You are presented with a 20-year-old thoroughbred gelding with a history of a unilateral purulent nasal discharge. According to the owner, it has been discharging for several months but he thought it ‘just had a cold’. The horse last had its teeth examined five years ago by the farrier. Answer **all** subparts of this question:

- a) Describe in detail your diagnostic approach. *(10 marks)*
- b) List your differential diagnoses. *(5 marks)*
- c) Describe briefly your treatments for each of the differential diagnoses, and possible complications following treatment. *(10 marks)*

3. On examining the oral cavity of a 12-year-old warmblood mare during a routine dental, you notice that 406 is missing and that 106 is now impacting into the mandible. Answer **all** subparts of this question:

- a) Describe your treatment program for this horse, including approximate timelines. *(10 marks)*
- b) List possible complications with this treatment. *(5 marks)*
- c) Explain how these complications can be reduced, if not avoided. *(10 marks)*

Examination continued over page

4. A 15-year-old standardbred gelding is presented to you for routine dental work. It has a five-year history of dentistry being performed by another operator including incisor alignment, apparently for treatment of a temporomandibular joint problem. The owner recalls that on at least one occasion they can remember the power instrument used was fast, created a lot of dust and an unpleasant smell. Oral examination reveals black open pulps on 101, 201 and 202. A discharging sinus tract is present above the crown of 201. A 25G needle easily passes into these pulp chambers. Answer **all** subparts of this question:
- a) Explain how these pulp exposures may have occurred. (5 marks)
 - b) Discuss the treatment options available for this horse. (5 marks)
 - c) Explain why the horse may be asymptomatic. (5 marks)
 - d) Briefly describe the method for extraction of these teeth. (10 marks)
5. A two-year-old thoroughbred filly is presented after crashing through a fence during breaking-in. Clinical examination reveals blood coming from the mouth and the rostral mandible is hanging loosely, attached by gingiva only at the ventral border. Bone is exposed and the 703 and 803 are both fractured approximately 1cm from their apices with the apical portions visible in the mandible, distal to the fracture site. Grass and debris contaminate the site. The owner insists that the horse is a future stakes winner and wants the horse treated. Discuss in detail your treatment of this case including possible long-term sequelae. (25 marks)
6. Oral examination of a ten-year-old quarterhorse broodmare reveals a 309 with a buccal slab fracture. A small, hard swelling is found on the mandible below this tooth after careful external palpation. The owner states that the mare is six months pregnant. Answer **all** subparts of this question:
- a) List your treatment options for this horse. (5 marks)
 - b) List the ancillary diagnostic tests you would perform. (5 marks)
 - c) Describe your technique for extracting this tooth orally. (10 marks)
 - d) List your postoperative protocols and any follow-up requirements. (5 marks)

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