



Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2012

Equine Dentistry Paper 1

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

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

Answer **ALL FOUR (4)** questions

All four questions are of equal value

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

Paper 1: Equine Dentistry

Answer **ALL** four (4) questions.

1. Describe the embryology, formation and maturation of the equine hypsodont tooth. *(25 marks)*

2. Discuss the factors that affect the prognosis and treatment of a traumatic mandibular fracture in an eight-year-old horse. *(25 marks)*

3. Describe **four (4)** aetiologies of apical infection and explain the pathogenesis of each. *(25 marks)*

4. Answer **all** subparts of this question:
 - a) Describe the method of extraction of wolf teeth. *(5 marks)*

 - b) Describe **one (1)** surgical approach for exposure of the maxillary sinus e.g. for flushing or tooth repulsion. *(5 marks)*

 - c) Describe the pharmacological modes of action of potentiated sulphonamides and alpha-2 agonists. Briefly explain why caution should be employed when using them simultaneously. *(5 marks)*

 - d) Explain the role of bacteria in periodontal disease. *(5 marks)*

 - e) Describe the principle of the bisecting angle technique in oral radiography. Include a diagram to supplement your answer. *(5 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: Equine Dentistry

Answer ALL four (4) questions.

1. It is one week before the owners of a 13.2 hand, 12-year-old English riding pony are to leave for the Horse of the Year Show, where this mare won the Pony Show Jumping last year. The current owners bought her six months ago so their 16-year-old daughter could compete at her last (age-bound) Pony Show Jumping competition. The mare has been ridden with a pelham for the past two months, however she has been tossing her head and reluctant to jump for the past month.

Last week the owners noticed a lump on her jaw. On examination you note that the swelling is at the centre of the diastema of the left mandible and no discharge is present. The mare is reluctant to let you put your fingers in her mouth, but you are able to feel that no wolf teeth or canines are present. The mare's incisors look normal when her lips are parted. She is afebrile.

Discuss the possible diagnoses, diagnostic approach, treatment options and prognoses. (25 marks)

2. During the pre-purchase examination of an eight-year-old quarter horse cutting horse you discover a 10mm rostral hook on the 206 and a connated 211/212 tooth. There is ulceration of the diastemal gingiva mesial to 306. The 207 and 209 are directed slightly palatally and the 208 slightly buccally, but show reasonable occlusion and wear from the opposing arcade. Interdental feed packing is evident rostral and caudal to 208.

Answer **all** subparts of this question:

- a) Explain the potential complications of these oral findings. (8 marks)
- b) The client asks you for an opinion about purchasing the horse. Indicate your response. (2 marks)
- c) Discuss how you would manage this case in both the short and long term, should the client wish to purchase. (15 marks)

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

An owner of a nine-year-old 650 kg warmblood mare calls you as she is concerned that some blood is present in saliva dripping from the mare's mouth. Upon arrival and further questioning of the owner you note the mare is used for dressage and earlier in the day a lay-dentist visited to prepare her mouth for the forthcoming competition this weekend. On general examination there are no clinical abnormalities detected. You decide to perform an oral examination.

- a) List the minimum equipment you would require for an oral examination and your sedation protocol. (5 marks)

On oral examination you find that the occlusal surfaces of all cheek teeth have been recently rasped and are smooth. There are small red spots corresponding to the occlusal surfaces of pulp horns within incisors 302 and 303 and corresponding to pulp horns 7 on 306 and 406 that bleed after examination.

You advise the owner that these teeth have had their pulps exposed following overly aggressive dental rasping and as a temporary measure you would like to 'pulp-cap' the exposed pulps.

- b) Explain why this procedure is necessary and list procedural steps, including all materials and required instrumentation. (10 marks)
- c) Explain the different possible outcomes of the procedure. If the outcomes are unsuccessful, describe the most appropriate salvage treatment. (10 marks)

4. Your last patient today is a 24-year-old Arabian gelding who has been losing weight but becoming mildly pot-bellied over the past year despite appropriate deworming and an increased plane of nutrition. His owner says he's been coughing a bit for the last few weeks. His faecal examination from last week was negative for parasites and his faeces appear normal. He has diverging growth rings at the heels of all four feet. You detect halitosis and perform an oral examination where you notice feed material is present between several of his cheek teeth. The 309 is mobile and bilaterally the maxillary 08s and 09s have cupped out infundibulae. At the sites of the feed packing, the gingiva is inflamed and the gelding resents palpation of the adjacent cheek teeth.

Discuss the diagnostic tests and treatment regimen would you recommend for this horse. Explain your long-term recommendations for management of this patient's dental conditions. (25 marks)

End of paper