



Australian and New Zealand College of Veterinary Scientists

Membership Examination

June 2021

Small Animal Dentistry and Oral Surgery

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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Enquiries should be addressed to the Australian and New Zealand College of Veterinary Scientists.

Paper 1: Small Animal Dentistry and Oral Surgery

Answer all four (4) questions

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

- a) Describe the macro- and micro-structure of dentine, how dentine develops, and how it responds to physiological and non-physiological stimuli. The use of appropriately labelled diagrams may assist your response. (15 marks)
- b) Describe how the characteristics discussed in sub-question 1 a) affect the *in vivo* behaviour of dentine when performing sealing and bonding in dental procedures. (15 marks)

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

- a) Discuss the fundamental reasons for pre-operative imaging in all cases to be treated in small animal dentistry and oral surgery. (3 marks)
- b) List the imaging options for small animal dentistry and oral surgery. Briefly discuss the advantages, disadvantages and limitations of each imaging option. (11 marks)
- c) Describe how radiography would be used to obtain diagnostic images of:
 - i. tooth 104 in a cat (8 marks)
 - ii. the temporomandibular joints (TMJs) in a five-year-old Kelpie dog. (8 marks)

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

- a) Describe the formation of a tooth, including formation of its root and closure of its apex. *(15 marks)*
- b) Define apexogenesis, state the indications for this procedure and briefly describe the procedure. *(15 marks)*

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

- a) Discuss the aetiology and pathogenesis of periodontal disease. *(22 marks)*
- b) Discuss the use of antimicrobials in the management of periodontal disease.
(8 marks)

End of paper



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Paper 2: Small Animal Dentistry and Oral Surgery

Answer all four (4) questions

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

- a) Discuss the practical application of orthodontics in the dog and cat. Include in your answer a brief discussion of any theoretical concepts that must be considered when utilising orthodontics. *(11 marks)*
- b) Discuss the theoretical concepts and practical considerations to the management of each of the following conditions: *(19 marks)*
 - i. rostrorsion of a maxillary canine
 - ii. linguoversion of a mandibular canine.

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

- a) Describe the procedure for root canal therapy. Include in your answer considerations relevant to access to the pulp, debridement and sterilisation of the canal, obturation, restoration and clinical follow-up. *(10 marks)*
- b) Justify clinical features that define cases requiring root canal therapy versus vital pulp therapy. *(2 marks)*
- c) Define the criteria for root canal success and explain what to do if the procedure fails. *(4 marks)*
- d) List and discuss the choice of materials and instruments used in root canal therapy and vital pulp therapy. *(8 marks)*
- e) List the potential complications of root canal therapy and pulp capping. *(6 marks)*

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

a) List and briefly describe the pathology of **five (5)** benign masses that may occur orally. *(15 marks)*

b) List and briefly describe **five (5)** malignant masses that may occur orally.
(15 marks)

4. A four-year-old cat has just been presented with orofacial trauma.

Describe:

- the appropriate patient stabilisation and care considerations,
- the investigation of any possible oral fractures, and
- the appropriate repair techniques for these fractures.

Include in your answer the appropriate suture material choice(s) and considerations for their use in the oral cavity. *(30 marks)*

End of paper