

# ***Veterinary Dentistry 4th edition Elsevier Test Bank***

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## Review Questions - Chapter 01

**Q1:** Which head type features a long narrow head?

- A. Mesaticephalic
- B. Brachycephalic
- C. Dolichocephalic (Correct)**
- D. Polycephalic

*Rationale: Mesaticephalic is the most common head type and is medium length. Examples are poodles and labrador retrievers. This is the most common head type. Brachycephalic is a short length head type. Examples would be boxers and pugs. Dolichocephalic is a long, narrow head type. Examples would be collies and greyhounds. Polycephalic means having more than one head.*

**Q2:** Which substance is the hardest in the body and covers the crown?

- A. Dentin
- B. Enamel (Correct)**
- C. Alveolar process
- D. Cementum

*Rationale: Dentin is porous and surrounds the pulp. It continues to be laid down by a living tooth. Enamel is the hardest substance in the body and covers the crown. The alveolar process is the bony socket within the jaws that houses the tooth root. Cementum covers the root.*

**Q3:** The gingival sulcus should be less than \_\_\_\_\_ mm deep in the dog and less than \_\_\_\_\_ mm deep in the cat?

- A. 3, 1 (Correct)**
- B. 1, 3
- C. 2, 0.5
- D. 0.5, 2

*Rationale: The gingival sulcus should be less than 3 mm deep in the dog and less than 1 mm deep in the cat.*

**Q4:** Which tooth in the cat has three roots?

- A. Mandibular first molar
- B. Maxillary first molar
- C. Maxillary second molar
- D. Maxillary fourth premolar (Correct)**

*Rationale: There are no three rooted teeth in the mandible. The maxillary first molar can have two roots that are separate or fused or a single root. Cats do not have a maxillary second molar. The fourth premolar is the only tooth in a cat with three roots.*

**Q5:** Which directional term refers to the direction away from the midline?

- A. Palatal
- B. Mesial
- C. Distal (Correct)**
- D. Buccal

*Rationale: Palatal is the direction toward the hard palate. Mesial is the direction toward the midline. Distal is the direction away from the midline. Buccal is toward the cheek.*

**Q6:** Which directional term refers to toward the apex of the tooth?

- A. Apical (Correct)**
- B. Coronal
- C. Lingual
- D. Vestibular

*Rationale: Apical is toward the apex of the tooth. Coronal is toward the crown of the tooth. Lingual is toward the tongue. Vestibular is toward the outside of the tooth.*

**Q7:** Which of the following is the dental formula for an adult cat?

- A.  $2 \times (3/3i, 1/1c, 3/3p) = 28$
- B.  $2 \times (3/3I, 1/1C, 3/2P, 1/1M) = 30$  (Correct)**
- C.  $2 \times (3/3I, 1/1C, 4/4P, 2/3M) = 42$
- D.  $2 \times (3/3i, 1/1c, 3/2p) = 26$

*Rationale:  $2 \times (3/3i, 1/1c, 3/3p) = 28$  is the dental formula for the puppy.  $2 \times (3/3I, 1/1C, 3/2P, 1/1M) = 30$  is the dental formula for the adult cat.  $2 \times (3/3I, 1/1C, 4/4P, 2/3M) = 42$  is the dental formula for the adult dog.  $2 \times (3/3i, 1/1c, 3/2p) = 26$  is the dental formula for the kitten.*

**Q8:** What does the rule of 4 and 9 state?

- A. First molars always end in 4.
- B. First molars always end in 9. (Correct)**
- C. Fourth premolars always end in 4.
- D. Fourth premolars always end in 9.

*Rationale: The rule of 4 and 9 was developed to account for species that have fewer teeth. Canines always end in 4. First molars always end in 9. Fourth premolars would end in 8.*

**Q9:** Using the Triadan Numbering System, which quadrant would the lower left be?

- A. 1
- B. 2
- C. 3 (Correct)**
- D. 4

*Rationale: The Triadan Numbering System states that the upper right quadrant is 1. The upper right quadrant is 2. The lower left quadrant is 3. The lower right quadrant is 4.*

**Q10:** Using the Triadan Numbering System for deciduous teeth, which quadrant would be the upper left?

- A. 1
- B. 2
- C. 5

**D. 6 (Correct)**

*Rationale: The Triadan Numbering System for deciduous teeth states that 5 is the upper right quadrant. The upper left quadrant is 6. The lower left quadrant is 7. The lower right quadrant is 8. Quadrants 1 and 2 are for adult teeth with 1 being the upper right and 2 being the upper left.*

## Test Bank - Chapter 01

**Q1:** A Boxer has a \_\_\_\_ type of head, whereas a German shepherd has a \_\_\_\_ type of head.

- A. dolichocephalic; cephalic
- B. brachycephalic; mesaticephalic (Correct)**
- C. dolichocephalic; mesaticephalic
- D. brachycephalic; cephalic

*Rationale: Brachycephalic animals have short, wide heads; examples are Boxers, pugs, bulldogs, and Persian cats. Mesatic means medium, and mesaticephalic is the most common head type among animals; examples are German shepherds, Poodles, corgis, Labrador retrievers, and domestic shorthair cats. Dolichocephalic animals have long, narrow heads; examples are Collies, greyhounds, borzois, and seal point Siamese cats. Cephalic, the common root of the above-mentioned head types, simply means head.*

**Q2:** Animals with a \_\_\_\_ type of head commonly have crowded and rotated premolar teeth.

- A. dolichocephalic
- B. mesaticephalic
- C. brachycephalic (Correct)**
- D. cephalic

*Rationale: Brachycephalic animals have short, wide heads. This characteristic commonly results in crowded and rotated premolar teeth, a condition that may lead to periodontal disease. Examples of animals with brachycephalic heads are Boxers, pugs, bulldogs, and Persian cats.*

**Q3:** The soft palate

- A. covers underlying bone.
- B. is a plate of tissue between the two mandibles.
- C. is covered with a mucous membrane that has irregular ridges, called the rugae palatinae.
- D. is the caudal portion of the roof of the mouth. (Correct)**

*Rationale: The soft palate is the caudal (posterior) portion of the roof of the mouth; it does not have underlying bone, and is not found between the two mandibles (which comprise the lower jaw). It is the hard palate that is covered with a mucous membrane with irregular ridges, called the rugae palatinae.*

**Q4:** A \_\_\_\_ is an example of an animal with a dolichocephalic head.

- A. greyhound (Correct)**
- B. domestic shorthair cat
- C. Poodle
- D. Persian cat

*Rationale: Dolichocephalic animals have long, narrow heads; examples are greyhounds, Collies, borzois, and seal point Siamese cats. Domestic shorthair cats and Poodles both have a mesaticephalic (medium) type of head, as do German shepherds, corgis, and Labrador retrievers. Persian cats have a brachycephalic (short, wide) type of head, as do Boxers, pugs, and bulldogs.*

**Q5:** Which of the following statements about the tongue is the least accurate?

- A. The surfaces beneath the tongue are referred to as sublingual.
- B. It is involved in articulating.
- C. It separates the oral cavity from the pharynx. (Correct)**
- D. It is involved in thermoregulation.

*Rationale: The tongue is a fleshy, muscular organ used for tasting, licking, swallowing, articulating, and thermoregulation. Structures and surfaces beneath the tongue are referred to as sublingual. The soft palate, which is the caudal (posterior) portion of the roof of the mouth, separates the oral cavity from the pharynx.*

**Q6:** The \_\_\_\_ is the area of the oral cavity between the teeth/gingiva and the cheek or lips.

- A. vestibule (Correct)**
- B. oral mucosa
- C. mucogingival line
- D. mandibular symphysis

*Rationale: The vestibule is the area of the oral cavity between the teeth/gingiva and the cheek or lips. The oral mucosa is the tissue lining most of the oral cavity outside the mucogingival line. The mucogingival line is where the oral mucosa becomes the gingiva. The mandibular symphysis is where the left and right mandibles are joined together by fibrocartilaginous tissue.*

**Q7:** Which of the following is the hardest component of a tooth?

- A. Cementum
- B. Enamel (Correct)**
- C. Ameloblasts
- D. Alveolar bone

*Rationale: The crown of a tooth is covered with enamel, the hardest substance in the body. Enamel is produced by cells called ameloblasts as the tooth is developing. Cementum is the material that attaches the periodontal ligament to the tooth. Alveolar bone is the bone of the maxilla and mandible (upper and lower jaws) in which the tooth rests.*

**Q8:** Which of the following statements is the most accurate?

- A. Throughout the life of the tooth, ameloblasts continue to produce dentin.
- B. The cusp of the tooth is the portion deepest in the socket.
- C. The root canal is the space within the crown of a tooth.
- D. The bulk of the tooth consists of dentin. (Correct)**

*Rationale: The bulk of the tooth consists of dentin. Throughout the life of the tooth, odontoblasts continue to produce dentin; ameloblasts produce enamel as the tooth is developing. The apex of the tooth is the portion deepest in the socket (or alveolus); the cusp is the tip or pointed prominence on the occlusal surface of the crown. The pulp chamber is the space within the crown of a tooth; the root canal is the space within the root.*

**Q9:** The crown is the part of the tooth that is

- A. apical to the cementoenamel junction.
- B. coronal to the gingival margin.
- C. coronal to the cementoenamel junction. (Correct)**
- D. apical to the gingival margin.

*Rationale: The crown is the part of the tooth that is coronal to the cementoenamel junction. The root is apical to the cementoenamel junction. The crown is coronal to the gingival margin. The root is apical to the gingival margin.*

**Q10:** The area between the free gingiva and a tooth is known as the \_\_\_\_.

- A. pocket
- B. alveolus
- C. sulcus (Correct)**
- D. free gingival groove

*Rationale: The area between the free gingiva and a tooth is known as the sulcus when the tissue is healthy and there is no additional space. A space between the attached gingiva and a tooth is called a pocket and represents compromised tissue when periodontal disease is present. A slight groove exists between the free and attached gingiva, which is known as the free gingival groove. The tooth resides within the alveolus, or tooth socket.*

**Q11:** Another name for the bony socket in which the tooth resides is the

- A. pocket.
- B. alveolar process. (Correct)**
- C. sulcus.
- D. free gingival groove.

*Rationale: The tooth resides within the alveolar process, or tooth socket. A pocket is the space between the attached gingiva and a tooth and represents compromised tissue when periodontal disease is present. The area between the free gingiva and a tooth is known as the sulcus when the tissue is healthy and there is no additional space. A slight groove exists between the free and attached gingiva, which is known as the free gingival groove.*

**Q12:** The \_\_\_\_ holds the tooth in place within the bony socket.

- A. alveolar mucosa
- B. periodontal ligament (Correct)**
- C. cementum

D. free gingiva

*Rationale: The tooth is held in place in the alveolar process, or socket, by the periodontal ligament. Cementum attaches the periodontal ligament to the tooth. The alveolar mucosa is gingival tissue covering the bone. Free gingiva is the portion of the gingiva that is not directly attached to the tooth or supporting structures.*

**Q13:** The tip of the crown is known as the

- A. apex.
- B. neck of the tooth.
- C. cementsenamel junction.

**D. cusp. (Correct)**

*Rationale: The cusp is the tip or pointed prominence on the occlusal surface of the crown. The deepest part of the root is known as the apex, through which blood vessels and nerves enter the tooth. The neck of the tooth, or cementsenamel junction, is the area of a tooth where the cementum and enamel meet.*

**Q14:** Which of the following is the dental formula for a puppy?

**A.  $2 \times (3/3i, 1/1c, 3/3p)$  (Correct)**

- B.  $2 \times (3/3i, 1/1c, 3/3p, 2/3m)$
- C.  $2 \times (3/3i, 1/1c, 3/2p)$
- D.  $2 \times (3/3i, 1/1c, 3/2p, 1/1m)$

*Rationale: The dental formula for a puppy is  $2 \times (3/3i, 1/1c, 3/3p)$ . Answer C is the dental formula for a kitten. Neither puppies nor kittens have deciduous molars.*

**Q15:** \_\_\_\_ attaches the periodontal ligament to the tooth.

- A. Alveolar mucosa
- B. Oral mucosa

**C. Cementum (Correct)**

D. Free gingiva

*Rationale: The tooth is held in place in the alveolus by the periodontal ligament. Cementum attaches the periodontal ligament to the tooth. The alveolar mucosa is gingival tissue covering the bone. Free gingiva is the portion of the gingiva that is not directly attached to the tooth or supporting structures. The oral mucosa is the tissue lining most of the oral cavity outside the mucogingival line, which is where the oral mucosa becomes the gingiva.*

**Q16:** Which of the following is the dental formula for an adult cat?

- A.  $2 \times (3/3I, 1/1C, 4/4P, 2/3M)$
- B.  $2 \times (3/3I, 1/1C, 3/2P, 1/2M)$
- C.  $2 \times (3/3I, 1/1C, 4/4P, 3/4M)$
- D.  $2 \times (3/3I, 1/1C, 3/2P, 1/1M)$  (Correct)**

*Rationale: The dental formula for an adult cat is  $2 \times (3/3I, 1/1C, 3/2P, 1/1M)$ . Answer A is the dental formula for an adult dog. Answers B and C are fabrications.*

**Q17:** Dentin is produced by

- A. ameloblasts.
- B. oral mucosa.
- C. odontoblasts. (Correct)**
- D. alveolar mucosa.

*Rationale: Throughout the life of the tooth, odontoblasts, which are cells that line the pulp chamber, continue to produce dentin. Ameloblasts produce enamel as the tooth is developing. The oral mucosa is the tissue lining most of the oral cavity outside the mucogingival line, which is where the oral mucosa becomes the gingiva.*

**Q18:** Which of the following is the dental formula for an adult dog?

- A.  $2 \times (3/3I, 1/1C, 4/4P, 2/3M)$  (Correct)**
- B.  $2 \times (3/3I, 1/1C, 3/2P, 1/2M)$
- C.  $2 \times (3/3I, 1/1C, 4/4P, 3/4M)$
- D.  $2 \times (3/3I, 1/1C, 3/2P, 1/1M)$

*Rationale: The dental formula for an adult dog is  $2 \times (3/3I, 1/1C, 4/4P, 2/3M)$ . Answer D is the dental formula for an adult cat. Answers B and C are fabrications.*

**Q19:** Which of the following is the dental formula for a kitten?

- A.  $2 \times (3/3i, 1/1c, 3/3p)$
- B.  $2 \times (3/3i, 1/1c, 3/3p, 2/3m)$
- C.  $2 \times (3/3i, 1/1c, 3/2p)$  (Correct)**
- D.  $2 \times (3/3i, 1/1c, 3/2p, 1/1m)$

*Rationale: The dental formula for a kitten is  $2 \times (3/3i, 1/1c, 3/2p)$ . Answer A is the dental formula for a puppy. Neither kittens nor puppies have deciduous molars.*

**Q20:** A puppy's deciduous incisors erupt at \_\_\_\_ weeks of age, whereas a kitten's deciduous incisors erupt at \_\_\_\_ weeks of age.

- A. 2 to 3; 1 to 2
- B. 3 to 4; 2 to 3 (Correct)**
- C. 2 to 3; 2 to 3
- D. 3 to 4; 1 to 2

*Rationale: A puppy's deciduous incisors erupt at 3 to 4 weeks of age, whereas a kitten's deciduous incisors erupt at 2 to 3 weeks of age. The precise age at which teeth erupt varies by breed.*

**Q21:** A dog's permanent incisors erupt at \_\_\_\_ months of age.

- A. 2 to 3
- B. 3 to 5 (Correct)**
- C. 6 to 8
- D. 8 to 10

*Rationale: A dog's permanent incisors erupt at 3 to 5 months of age. The precise age at which teeth erupt varies by breed.*

**Q22:** An adult dog has how many permanent teeth?

- A. 42 (Correct)**
- B. 30
- C. 28
- D. 26

*Rationale: An adult dog has 42 permanent teeth. An adult cat has 30 permanent teeth. A puppy has 28 deciduous teeth. A kitten has 26 deciduous teeth.*

**Q23:** An adult cat has how many permanent teeth?

- A. 42
- B. 30 (Correct)**
- C. 28
- D. 26

*Rationale: An adult cat has 30 permanent teeth. An adult dog has 42 permanent teeth. A puppy has 28 deciduous teeth. A kitten has 26 deciduous teeth.*

**Q24:** Generally, primary teeth fall out \_\_\_\_ before eruption of the adult teeth.

- A. 1 to 2 days
- B. 3 to 4 days
- C. 1 week
- D. 1 to 2 weeks (Correct)**

*Rationale: Generally, primary teeth fall out (exfoliate) 1 to 2 weeks before eruption of the adult teeth.*

**Q25:** An adult dog's maxilla has \_\_\_\_, and an adult cat's maxilla has \_\_\_\_.

- A. 2 molars; 3 molars
- B. 3 molars; 1 molar
- C. 2 molars; 1 molar (Correct)**
- D. 3 molars; 3 molars

*Rationale: An adult dog's maxilla (upper jaw) has 2 molars, and an adult cat's maxilla has 1 molar.*

**Q26:** An adult dog's mandible has \_\_\_\_, and an adult cat's mandible has \_\_\_\_.

- A. 2 molars; 3 molars
- B. 3 molars; 1 molar (Correct)**
- C. 2 molars; 1 molar
- D. 3 molars; 3 molars

*Rationale: An adult dog's mandible (lower jaw) has 3 molars, and an adult cat's mandible has 1 molar.*

**Q27:** A dog or cat's premolars are used for

- A. grinding.
- B. gnawing and grooming.
- C. holding and tearing.
- D. cutting and breaking up food. (Correct)**

*Rationale: A dog or cat's premolars are used for cutting and breaking up food. The incisors are for gnawing and grooming. The canines are for holding and tearing. The molars are for grinding.*

**Q28:** A dog or cat's incisors are used for

- A. grinding.
- B. gnawing and grooming. (Correct)**
- C. holding and tearing.
- D. cutting and breaking up food.

*Rationale: A dog or cat's incisors are used for gnawing and grooming. The canines are for holding and tearing. The premolars are for cutting and breaking up food. The molars are for grinding.*

**Q29:** A dog or cat's molars are used for

- A. grinding. (Correct)**
- B. gnawing and grooming.
- C. holding and tearing.
- D. cutting and breaking up food.

*Rationale: A dog or cat's molars are used for grinding. The incisors are for gnawing and grooming. The canines are for holding and tearing. The premolars are for cutting and breaking up food.*

**Q30:** A dog or cat's canine teeth are used for

- A. grinding.
- B. gnawing and grooming.
- C. holding and tearing. (Correct)**
- D. cutting and breaking up food.

*Rationale: A dog or cat's canines are used for holding and tearing. The incisors are for gnawing and grooming. The premolars are for cutting and breaking up food. The molars are used for grinding.*

**Q31:** An adult dog's maxilla has \_\_\_\_, and an adult cat's maxilla has \_\_\_\_.

- A. 2 premolars; 2 premolars
- B. 4 premolars; 3 premolars (Correct)**
- C. 2 premolars; 3 premolars
- D. 4 premolars; 2 premolars

*Rationale: An adult dog's maxilla (upper jaw) has 4 premolars, and an adult cat's maxilla has 3 premolars.*

**Q32:** An adult dog's mandible has \_\_\_\_, and an adult cat's maxilla has \_\_\_\_.

- A. 2 premolars; 2 premolars
- B. 4 premolars; 3 premolars
- C. 2 premolars; 3 premolars
- D. 4 premolars; 2 premolars (Correct)**

*Rationale: An adult dog's mandible (lower jaw) has 4 premolars, and an adult cat's mandible has 2 premolars.*

**Q33:** Which of the following statements is the most accurate?

- A. In the mandible of the cat, only the first molar has three roots.
- B. The canine teeth in the dog can have one or two roots, depending on the breed.
- C. In the mandible of the dog, there are no three-rooted teeth. (Correct)**
- D. The incisors in the cat can have one or two roots, depending on the breed.

*Rationale: There are no three-rooted teeth in the mandible of either the dog or cat. Canine teeth in both dogs and cats have only one root each, as do their incisors.*

**Q34:** The \_\_\_\_ is the area of a tooth where the roots join the crown.

- A. mucogingival line
- B. temporomandibular joint
- C. rugae palatinae
- D. furcation (Correct)**

*Rationale: The furcation is the area of a tooth where the roots join the crown. The mucogingival line is where the mucous membrane lining the oral cavity becomes the gingiva. The temporomandibular joint is where the mandible connects to the maxilla. Rugae palatinae are irregular ridges in the mucous membrane that covers the hard palate.*

**Q35:** \_\_\_\_ is the positional term used to describe the direction toward the outside of the teeth, usually toward the lips.

- A. Buccal
- B. Lingual
- C. Palatal
- D. Labial (Correct)**

*Rationale: Labial is the positional term used to describe the direction toward the outside of the teeth, usually toward the lips. Buccal also indicates direction toward the outside of the teeth, but usually toward the cheeks. Lingual indicates the direction toward the middle of the mouth when referring to the mandibular teeth. Palatal also indicates direction toward the middle of the mouth, but when referring to the maxillary teeth.*

**Q36:** \_\_\_\_ is the positional term used to describe the direction toward the outside of the teeth, usually toward the cheeks.

- A. Buccal (Correct)**
- B. Lingual
- C. Palatal
- D. Labial

*Rationale: Buccal is the positional term used to describe the direction toward the outside of the teeth, usually toward the cheeks. Labial also indicates direction toward the outside of the teeth, but usually toward the lips. Lingual indicates the direction toward the middle of the mouth when referring to the mandibular teeth. Palatal also indicates direction toward the middle of the mouth, but when referring to the maxillary teeth.*

**Q37:** \_\_\_\_ is the positional term used to describe the direction toward the middle of the mouth when referring to the mandibular teeth.

- A. Buccal
- B. Lingual (Correct)**
- C. Palatal
- D. Labial

*Rationale: Lingual is the positional term used to describe the direction toward the middle of the mouth when referring to the mandibular teeth. Palatal also indicates direction toward the middle of the mouth, but when referring to the maxillary teeth. Buccal indicates the direction toward the outside of the teeth, usually toward the cheeks. Labial also indicates direction toward the outside of the teeth, but usually toward the lips.*

**Q38:** \_\_\_\_ is the positional term used to describe the direction toward the middle of the mouth when referring to the maxillary teeth.

- A. Buccal
- B. Lingual
- C. Palatal (Correct)**
- D. Labial

*Rationale: Palatal is the positional term used to describe the direction toward the middle of the mouth when referring to the maxillary teeth. Lingual also indicates direction toward the middle of the mouth, but when referring to the mandibular teeth. Buccal indicates the direction toward the outside of the teeth, usually toward the cheeks. Labial also indicates direction toward the outside of the teeth, but usually toward the lips.*

**Q39:** \_\_\_\_ denotes the side of the tooth closest to the midline of the dental arch, whereas \_\_\_\_ denotes the side of the tooth farthest from the midline of the dental arch.

**A. Mesial; distal (Correct)**

B. Coronal; apical

C. Mesial; apical

D. Coronal; distal

*Rationale: Mesial denotes the side of the tooth closest to the midline of the dental arch, whereas distal denotes the side of the tooth farthest from the midline of the dental arch. Coronal refers to the direction toward the crown of the tooth, and apical refers to the direction toward the root of the tooth.*

**Q40:** In the anatomic system, which of the following represents the left mandibular fourth premolar in an adult dog?

A. 4P

B. P4

C. P4

**D. 4P (Correct)**

*Rationale: In the anatomic system, when dealing with permanent teeth, an uppercase "P" stands for "premolar." The number beside the letter indicates the premolar in question. If the number is a superscript, this means that the tooth is in the maxilla (upper jaw); when the number is a subscript, this means that the tooth is in the mandible (lower jaw). When the number is to the right of the letter, this indicates the right side of the jaw; when the number is to the left of the letter, this indicates the left side of the jaw.*

**Q41:** In the anatomic system, which of the following would be an incorrect entry if the patient was an adult cat?

A. M1

B. 2P

C. C1

**D. 1P (Correct)**

*Rationale: Answer D would be an incorrect entry for an adult cat because, when sounded out, it stands for the "left maxillary first premolar." By convention (when compared to the dentition of dogs), cats are "missing" their right and left maxillary first premolars, as well as their right and left mandibular first and second premolars.*

**Q42:** Which of the following terms is used when referring to the direction away from the root of the tooth?

- A. Mesial
- B. Coronal (Correct)**
- C. Distal
- D. Apical

*Rationale: Coronal refers to the direction toward the crown of the tooth (i.e., away from the root), and apical refers to the direction toward the root of the tooth. Mesial denotes the side of the tooth closest to the midline of the dental arch, whereas distal denotes the side of the tooth farthest from the midline of the dental arch.*

**Q43:** In the anatomic system, which of the following would be a correct entry for either a puppy or kitten?

- A. C1
- B. 4i
- C. 1c (Correct)**
- D. M1

*Rationale: In the anatomic system, when dealing with primary (deciduous) teeth, all of the letters are lowercase, which eliminates answers A and D. Answer D is also incorrect because dogs and cats do not have primary molars. Answer B is incorrect because dogs and cats have only 3 incisors (not 4) in each quadrant of their mouths.*

**Q44:** In the anatomic numbering system, which of the following is the correct answer with regard to the designation 3211123?

- A. This is not a proper designation.
- B. It should read 123I123.
- C. This represents all of the incisors in an adult dog or adult cat. (Correct)**
- D. The number "2" represents the central incisors.

*Rationale: In the anatomic numbering system, a shortcut in the notation of multiple teeth is to indicate the tooth numbers as a chain. The designation 3211123 indicates all of the maxillary incisors in an adult dog or cat. The number "1" (not "2") represents the central incisors, and they are the ones located closest to the center of the mouth; the number "2" represents the intermediate incisors, and the number "3" represents the lateral incisors.*

**Q45:** In the Triadan numbering system, when dealing with permanent teeth, the right maxillary quadrant is designated by the number

- A. 1. (Correct)**
- B. 2.
- C. 3.
- D. 4.

*Rationale: In the Triadan numbering system, when dealing with permanent teeth, the right maxillary quadrant is designated by the number 1. The left maxillary quadrant is number 2, the left mandibular quadrant is number 3, and the right mandibular quadrant is number 4.*

**Q46:** In the Triadan numbering system, when dealing with primary teeth, the left mandibular quadrant is designated by the number

- A. 4.
- B. 5.
- C. 6.
- D. 7. (Correct)**

*Rationale: In the Triadan numbering system, when dealing with primary (deciduous) teeth, the left mandibular quadrant is designated by the number 7. The right maxillary quadrant is number 5, the left maxillary quadrant is number 6, and the right mandibular quadrant is number 8.*

**Q47:** In the designation 3211123 in the anatomic numbering system, the number “1” represents the

- A. deciduous incisors.
- B. lateral incisors.
- C. intermediate incisors.
- D. central incisors. (Correct)**

*Rationale: In the anatomic system, the number “1” represents the central incisors, and they are the ones located closest to the center of the mouth. The number “2” represents the intermediate incisors, and the number “3” represents the lateral incisors.*

**Q48:** In the Triadan numbering system, which of the following teeth do not appear in an adult cat?

- A. 108, 109, 208, 209
- B. 505, 605, 705, 706, 805, 806
- C. 105, 205, 305, 306, 405, 406 (Correct)**
- D. 307, 308, 407, 408

*Rationale: By convention (when compared to the dentition of dogs), cats are “missing” their right and left maxillary first premolars (105 and 205, respectively), as well as their left mandibular first and second premolars (305 and 306, respectively) and their right mandibular first and second premolars (405 and 406, respectively). Answer B is the correct answer when dealing with deciduous teeth in a kitten.*

**Q49:** In the anatomic system, which of the following teeth do not appear in an adult cat?

- A. 1P, P1, 1P, 2P, P1, P2 (Correct)**
- B. 2p, p2, 3p, 4p, p3, p4
- C. 2P, P2, 3P, 4P, P3, P4
- D. 1p, p1, 1p, 2p, p1, p2

*Rationale: By convention (when compared to the dentition of dogs), cats are “missing” their left and right maxillary first premolars (1P and P1, respectively), as well as their left mandibular first and second premolars (1P and 2P, respectively) and their right mandibular first and second premolars P1 and P2, respectively). Answer D is the correct answer when dealing with deciduous teeth in a kitten.*

**Q50:** In the Triadan numbering system, the “Rule of 4 and 9” states that the \_\_\_\_ is always designated by “04.”

- A. first molar
- B. canine tooth (Correct)**
- C. last molar
- D. first premolar

*Rationale: In the Triadan numbering system, the “Rule of 4 and 9” states that the canine tooth is always designated by 04, and the first molar by 09. For example, the canine tooth in the left mandibular quadrant (quadrant 3) of an adult cat would be identified as 304.*

**Q51:** In the Triadan numbering system, the “Rule of 4 and 9” states that the \_\_\_\_ is always designated by “09.”

- A. first molar (Correct)**
- B. canine tooth
- C. last molar
- D. first premolar

*Rationale: In the Triadan numbering system, the “Rule of 4 and 9” states that the canine tooth is always designated by 04, and the first molar by 09. For example, the first molar in the left mandibular quadrant (quadrant 3) of an adult dog would be identified as 309.*

**Q52:** In the dog, which of the following teeth has three roots?

- A. The first maxillary premolar
- B. The first mandibular premolar
- C. The fourth maxillary premolar (Correct)**
- D. The fourth mandibular premolar

*Rationale: In the dog, the fourth maxillary premolar has three roots, as do the first and second maxillary molars. There are no three-rooted teeth in the mandible of either the dog or cat.*

**Q53:** In the dog, in addition to the incisors and canines, which of the following teeth has only one root?

- A. The second maxillary molar
- B. The second mandibular premolar
- C. The third maxillary premolar
- D. The third mandibular molar (Correct)**

*Rationale: In the dog, in addition to the incisors and canines, the third mandibular molar has only one root, as do the first maxillary and mandibular premolars.*

**Q54:** In the cat, which of the following teeth has three roots?

- A. The fourth mandibular premolar
- B. The first mandibular molar
- C. The third mandibular molar

**D. The fourth maxillary premolar (Correct)**

*Rationale: In the cat, the fourth maxillary premolar has three roots. Not only is there no third mandibular molar, there are no three-rooted teeth in the mandible of either the dog or cat.*

**Q55:** In the cat, in addition to the incisors and canines, which of the following teeth has only one root?

**A. The second maxillary premolar (Correct)**

- B. The fourth maxillary premolar
- C. The third mandibular premolar
- D. The fourth mandibular premolar

*Rationale: In the cat, in addition to the incisors and canines, the second maxillary premolar has only one root. (The number of roots in the maxillary first molar varies from one to three, but if multiple roots are present, they usually are fused together.)*

**Q56:** The primary advantage of the anatomic system is that\_\_\_\_, whereas the primary advantage of the Triadan numbering system is that\_\_\_\_\_.

A. it uses familiar terms that are easy to remember; multiple teeth of the same type can be referred to at once

B. less time consuming; it can be used with all computers

**C. it uses familiar terms that are easy to remember; it can be used with all computers (Correct)**

D. less time consuming; multiple teeth of the same type can be referred to at once

*Rationale: The primary advantage of the anatomic numbering system is that it is easy to remember because it uses anatomic terms that most people already know (e.g., left maxillary fourth premolar), whereas the Triadan system requires that numbers be memorized (e.g., 308). The primary advantage of the Triadan numbering system is that it can be used with nonalphanumeric computers, whereas the anatomic system cannot. Referring to multiple teeth of the same type at once is a shortcut of the anatomic numbering system (e.g., 3211123); however, the anatomic system is more time consuming than the Triadan system (e.g., saying "left maxillary fourth premolar" is more time consuming than saying "tooth 308").*

**Q57:** With regard to dental charting, which of the following statements is the least accurate?

**A. The drawings of the teeth are oriented so that the right side of the chart corresponds to the teeth on the right side of the patient. (Correct)**

- B. On the chart, the first row of teeth represents the labial/buccal side of the maxillary teeth.
- C. A patient with a 3-mm pocket with no attachment loss would be charted as 3/0.
- D. A patient with a 3-mm pocket and 2 mm of additional attachment loss would be charted as 3/5.

*Rationale: The drawings of the teeth on a dental chart are oriented to the viewer, who is facing the patient; thus, the patient's right side is indicated on the left side of the chart, and the patient's left side is on the right side of the chart. On the chart, the first row of teeth represents the labial/buccal (outside) of the maxillary (upper) teeth. A patient with a 3-mm pocket with no attachment loss would be charted as 3/0. A patient with a 3-mm pocket with 2 mm of additional attachment loss would be charted as 3/5; the second number represents the total attachment loss (i.e.,  $3 + 2 = 5$ ).*

**Q58:** When charting the pocket depth for a given tooth, an entry of "10/2" would indicate

- A. gingival recession.
- B. gingival hyperplasia. (Correct)**
- C. neither recession nor hyperplasia.
- D. gingival hypoplasia.

*Rationale: When charting the pocket depth for a given tooth, and when the first number is larger than the second, it is a site with gingival hyperplasia. When the first number is smaller than the second, it is a site of gingival recession. When only one number is entered (e.g., 3/0), there is neither recession nor hyperplasia. Hypoplasia means incomplete development or underdevelopment of an organ or tissue, and would not apply in this context.*