

## Chapter 1 Review questions

- 1 Define the terms medial, rostral, and dorsal.
- 2 Which is more cranial, the thoracic limb or the pelvic limb?
- 3 The caudal paw area on the thoracic limb is referred to as the \_\_\_\_\_ surface.
- 4 True or false: The stifle is caudal to the tail.
- 5 Define the term “topographic anatomy.”

## Chapter 2 Review questions

- 1 An animal has a laceration that is bleeding, but the cut does not extend down to the muscle. What layers of skin are involved?
- 2 List three examples of sebaceous glands.
- 3 Do cats sweat?
- 4 What organism is responsible for ringworm infection?
- 5 Of the following areas, where would the stratum lucidum of the epidermis be the thickest?
  - Eyelid
  - Lip
  - Digital pad
- 6 What is laminitis?
- 7 What is the difference between guard hairs and tactile hairs?
- 8 What is the difference between horns and antlers?
- 9 Which of the following is not painful?
  - Laminitis
  - Cutting the quick
  - Ringworm
- 10 What is meant by clipping a bird's wings?

## Chapter 3 Review questions

- 1 Give an example of a flat bone.
- 2 What is the proper name of the shaft of a long bone?
- 3 How many phalangeal bones are there in each digit?
- 4 What is the name of the cranial-most vertebra?
- 5 What type of bone is the patella?

## Chapter 4 Review questions

- 1 List the four types of skeletal muscle.
- 2 What is the primary difference between smooth muscle and skeletal muscle?
- 3 Name two superficial muscles of the ventral thorax.
- 4 What is different about the origin and insertion of the latissimus dorsi, compared to other muscles of the trunk?
- 5 Name two superficial muscles of the ventral abdomen.
- 6 Name two muscles of the caudal femoral area. Why do we need to be able to identify them?
- 7 What is the proper name for the part of the pelvic limb between the stifle and the tarsus? Name two muscles found in that area.
- 8 Is the extensor carpi radialis on the dorsal or caudal surface of the antebrachium?
- 9 Name an intrinsic muscle of the scapula.
- 10 Name an extrinsic muscle of the scapula.
- 11 What is the linea alba?
- 12 Where can the muscle “serratus ventralis” be found?

## Chapter 5 Review questions

- 1 What joint on the canine limb is analogous to the equine fetlock?
- 2 Name a ligament that dogs have but cats do not have.
- 3 Name the features of the stifle joint.
- 4 What are the three major categories of joints?
- 5 What color should the articular cartilage be?
- 6 List three synovial joints.
- 7 What is the difference between a suture and a symphysis?
- 8 What is an articular labrum? Where would you find one on the dog?
- 9 What is the drawer test? What part of the joint does it test?
- 10 What joint is involved in the movement of a dog's head from side to side?

## Chapter 6 Review questions

- 1 What are the two major nerves of the antebrachium?
- 2 Define the term ganglion.
- 3 What is the name of cranial nerve XI?
- 4 What gives white matter its color?
- 5 What is the proper name of the sciatic nerve?
- 6 Which layer of the meninges is present in the spinal cord but not in the brain?
- 7 Where does the spinal cord connect with the brain?
- 8 Where would you sample cerebrospinal fluid?
- 9 What nerve would you anesthetize before ophthalmic surgery?
- 10 What is a bundle of nerve fibers called?

## Chapter 7 Review questions

- 1 Which is deeper, the renal cortex or the renal medulla?
- 2 What is the name of the indentation in the kidney from which the ureter comes?
- 3 True or false: In the dog and cat, the kidney is covered by a fibrous capsule.
- 4 On what surface of the urinary bladder does the ureter enter?
- 5 What is unusual about the structure of the feline male urethra?

## Chapter 8 Review questions

- 1 What is the name of the layers of connective tissue that cover the heart?
- 2 Which chamber of the heart does the aorta come out from?
- 3 The coronary arteries that feed the heart come from what part of the circulatory system?
- 4 The vessel exiting toward the lungs from the right ventricle of the heart is the \_\_\_\_\_.
- 5 What is the proximal-most branch artery of the abdominal aorta?
- 6 True or false: The aorta extends all the way down through the tail.
- 7 The smallest vessels of the arteries, just before they enter the capillaries, are called \_\_\_\_\_.
- 8 The major vein that enters the right atrium from the area of the head and neck is the \_\_\_\_\_.
- 9 What does the spleen have to do with the circulatory system?
- 10 What lymph node of the pelvic limb is readily palpable in the dog?



## Chapter 9 Review questions

- 1 What structure marks the caudal extent of the oral vestibule?
- 2 Which has more teeth under normal circumstances, a cat or a dog?
- 3 The fundus and body of the stomach lie in which quadrant of the abdomen?
- 4 Which segment of the small intestine is directly distal to the pyloric sphincter?
- 5 The three parts of the colon, or large intestine, are \_\_\_\_\_.
- 6 Inflammation of the pancreas is associated with inflammation of the small intestine because \_\_\_\_\_.
- 7 What are the four parts of the bovine stomach?
- 8 Rabbits and horses do most of their digestion in the \_\_\_\_\_.

## Chapter 10 Review questions

- 1 What is contained in the sella turcica?
- 2 What part of the body is the thyroid gland located in?
- 3 What does the pineal gland do?
- 4 What is the location of the adrenal glands?
- 5 Where are the insulin-producing cells located? Does this organ have any nonendocrine functions? What are they?

## Chapter 11 Review questions

- 1 What is the tissue lining the inside of the thoracic cavity?
- 2 What are the rings of the trachea made of?
- 3 What is the groove between the nostrils on the outside of the nose called?
- 4 How many lobes of the lungs do dogs and cats have?
- 5 What is the opening between the vocal folds called?

## Chapter 12 Review questions

- 1 What is the general term for a female cat?
- 2 What is the cranial-most part of the female reproductive tract?
- 3 What is the space between the ovary and the oviduct called (through which the ovum travels)?
- 4 The fetus develops in the \_\_\_\_\_ during pregnancy.
- 5 Do male dogs and cats have a prostate gland?
- 6 True or false: The male reproductive tract runs dorsal to the rectum in dogs.
- 7 What is a sigmoid flexure?

## Chapter 13 Review questions

- 1 What is the mammalian cell membrane mainly composed of?
- 2 Does diffusion into the cell require energy?
- 3 How does ATP relate to energy production in the cell?
- 4 True or false: The use of glucose for energy in a cell can only be accomplished if oxygen is present.
- 5 Can the brain use anything other than glucose for cell activity?
- 6 What does “redox” mean in relation to cell metabolism?

## Chapter 14 Review questions

- 1 What is convection (in the context used here)?
- 2 Define poikilotherm.
- 3 What are the muscles that control the hair follicles?
- 4 What is the proper name for the whiskers?
- 5 The mammary glands fall into what category of glands?
- 6 Define pheromone.
- 7 What is the difference between horns and antlers?
- 8 Name a species that has digitigrade stance.

## Chapter 15 Review questions

- 1 True or false: We can only sample bone marrow from long bones and not flat or irregular bones.
- 2 If a year-old animal suffered a wound from buckshot and a pellet remained in the center of the femur after the injury, would it still be in the same position (if it was not surgically removed) in 5 years? Why?
- 3 What is the epiphyseal plate composed of in the newborn puppy or kitten?
- 4 The outmost, fibrous layer of a long bone is called the \_\_\_\_\_.
- 5 What is compact bone?
- 6 What does an osteoclast do?
- 7 Do ligaments and tendons have blood vessels in them?
- 8 What type of cartilaginous material covers the articular surfaces of most bones connected by joints?
- 9 True or false: The temporomandibular joint does have a meniscus, but only one for each joint.

## Chapter 16 Review questions

- 1 True or false: Actin and myosin are types of proteins.
- 2 The main neurotransmitter associated with the neuromuscular junction in skeletal muscle is \_\_\_\_\_.
- 3 While waiting to be used, calcium is stored within a muscle fiber in the \_\_\_\_\_.
- 4 Smooth muscle is governed mostly by the \_\_\_\_\_ nervous system, and its main neurotransmitter is \_\_\_\_\_.
- 5 Is it more important for skeletal muscle or smooth muscle to maintain a continuous level of activity?
- 6 Would the administration of epinephrine have more of an effect on the skeletal muscle or on the smooth muscle?



## Chapter 17 Review questions

- 1 What is the proper adjective for the sense of taste?
- 2 Define proprioceptive.
- 3 True or false: The semicircular canals are structures involved in both hearing and balance.
- 4 The ossicles are contained within the outer, middle, or inner ear?
- 5 What is the tapetum lucidum?
- 6 What is the name of the fibrous white part of the eye just deep to the cornea?
- 7 True or false: Some fibers of the optic nerve cross to the other side of the brain, and some stay on the same side.
- 8 What is the vomeronasal organ?

## Chapter 18 Review questions

- 1 What is cerebellar hypoplasia?
- 2 What is the resting voltage of the mammalian neuron?
- 3 What does a node of Ranvier have to do with the transmission of an axon potential?
- 4 Depolarization of a neuron means that \_\_\_\_\_.
- 5 What is a synapse?
- 6 What would happen if the neurotransmitter were to stay in the synapse after it has contacted the receptor?
- 7 What is the difference between a ligand-gated and a voltage-gated channel?
- 8 What effect does the sympathetic nervous system have on heart rate and respiratory rate?
- 9 What constitutes the CNS?
- 10 What is the myotactic reflex?

## Chapter 19 Review questions

- 1 Name the parts of the nephron, starting with where it receives blood from the arterioles.
- 2 What can be inferred about the function of the nephron if the urine matches the glomerular filtrate?
- 3 True or false: All parts of the nephron are permeable to water.
- 4 Renal failure can be associated with anemia. Why?
- 5 What does aldosterone do to the nephron?
- 6 True or false: As water is being absorbed or excreted by the nephron, it will tend to follow absorption or excretion of calcium but not sodium.
- 7 True or false: An animal that has not had anything to drink all day will still urinate.

## Chapter 20 Review questions

- 1 Define cardiac output.
- 2 What would happen if a heartbeat was triggered by the AV node rather than the SA node?
- 3 Define Starling's law.
- 4 The term systole refers to simultaneous contraction of the \_\_\_\_\_ of the heart.
- 5 Increased pressure or valve stiffness in the aorta can increase its resistance to blood flow. This resistance is referred to as \_\_\_\_\_.
- 6 The baroreceptors respond to \_\_\_\_\_.
- 7 Define pulse deficit.
- 8 What is the effect of increasing the diameter of the blood vessels on blood pressure?
- 9 Does contractility affect cardiac output?
- 10 When lymphatic fluid exits the lymph node, it returns to the circulatory system by way of the arteries or the veins?

## Chapter 21 Review questions

- 1 List three functions of the oral cavity not associated with digestion.
- 2 What is the purpose of the rugae?
- 3 Where does bile enter the intestinal tract? What does bile do?
- 4 What is the main digestive activity that occurs in the colon?
- 5 Does pH rise or fall as a dog or cat is digesting?
- 6 What is the name of the “true stomach” in the bovine?

## Chapter 22 Review questions

- 1 When calcitonin is active, would you expect blood levels of calcium to rise or fall?
- 2 What does oxytocin do? What particular type of muscle does it affect?
- 3 What is a negative feedback loop?
- 4 Would the administration of steroid-based drugs interfere with wound healing? Why?
- 5 What are the islets of Langerhans?
- 6 What would happen if the cells of the body were resistant to insulin?
- 7 Where is epinephrine produced?
- 8 Do endocrine glands have ducts? If not, how do hormones get to their targets?
- 9 What does glucagon do?

## Chapter 23 Review questions

- 1 What is vital capacity?
- 2 What is physiological dead space?
- 3 Define V/Q mismatch.
- 4 What is a chemoreceptor (as it relates to the respiratory system)?
- 5 True or false: Inserting an endotracheal (breathing) tube that is too long prior to surgery will not affect dead space but will have an impact on gas permeability of the alveolus.
- 6 What is the word for the collapse of a lung or lung lobe?
- 7 What does a hemoglobin/oxygen dissociation curve show us?
- 8 What do high levels of carbon dioxide do to blood pH?
- 9 Is exhalation in the dog and cat normally active or passive?
- 10 Which part of the bird's respiratory system expands and contracts?

## Chapter 24 Review questions

- 1 Define estrus.
- 2 What are the four stages of the estrous cycle?
- 3 What is the corpus luteum?
- 4 True or false: The FSH is found in females but not in males.
- 5 LH is associated with the bursting open of the follicle, which is accompanied by a steep rise in what hormone?
- 6 True or false: There is no hormonal activity during anestrus.
- 7 What hormone produced in the fetus triggers the release of estrogen as parturition approaches?
- 8 What connects the placenta to the embryo?
- 9 What is capacitation of sperm?
- 10 What does stimulated ovulation mean? Is it found in dogs, cats, or both?