

REVIEW EXAM 2

Please answer the following questions. These questions are meant to help you test your knowledge of the subject matter. Do *not* send your answers to the school.

LESSON 2 – CHAPTERS 6, 7

CHAPTER 6 – SKELETAL SYSTEM

- The hormone that helps to prevent hypercalcemia by depositing excess calcium in bones is
 - parathyroid hormone.
 - calcitonin.
 - antidiuretic hormone.
 - oxytocin.
- Compact bone consists of tightly compacted cylinders of bone called
 - canaliculi.
 - endosteum
 - haversian systems.
 - Volkman's canals.
- Blood vessels pass through countless tiny channels in the bone called
 - Volkman's canals.
 - growth plates.
 - nutrient foramina.
 - condyles.
- Intramembranous bone formation *only* occurs
 - at growth plates.
 - in the long bones.
 - at secondary growth centers.
 - in certain skull bones.
- Examples of irregularly shaped bones include
 - sesamoids and vertebrae.
 - vertebrae and tarsal bones.
 - scapulas and sesamoids.
 - skull bones and carpal bones.
- Which of the following is true?
 - Yellow bone marrow consists primarily of hematopoietic tissue.
 - Yellow bone marrow can revert to red bone marrow.
 - Yellow bone marrow makes up the majority of bone marrow of young animals.
 - Red bone marrow consists primarily of adipose connective tissue.

7. Which joints contain hyaline cartilage?
- a. Cartilaginous
 - b. Fibrous
 - c. Synovial
 - d. All of the above
8. What common bone feature is a somewhat spherical articular surface on the proximal end of long bones?
- a. Head
 - b. Facet
 - c. Condyle
 - d. Fossa
9. The spinal cord passes through the hole called the
- a. obturator foramen.
 - b. foramen magnum.
 - c. nutrient foramen.
 - d. obturator magnum.
10. The mandible is connected to the rest of the skull by what type of joint?
- a. Synovial
 - b. Fibrous
 - c. Cartilaginous
 - d. Suture
11. In cattle, the cornual process is a part of what bone?
- a. Parietal
 - b. Temporal
 - c. Sphenoid
 - d. Frontal
12. Where's the paranasal sinus housed in humans and horses?
- a. Sphenoid bone
 - b. Ethmoid bone
 - c. Frontal bone
 - d. Cribriform plate
13. Which of the following statements is *false*?
- a. Brachycephalic breeds such as collies have long nasal bones.
 - b. The two maxillary bones make up most of the upper jaw.
 - c. The lacrimal bones form part of the medial portion of the orbit of the eye.
 - d. The palatine bones form the caudal part of the hard palate.
14. Which of the following statements is *false*?
- a. The zygomatic arches are the bony landmarks below and behind the eyes that form the widest part of the skull in dogs and cats.
 - b. The two incisive bones are also called the premaxillary bones.
 - c. The most common type of mandibular fracture in horses and swine is the mandibular symphyseal fracture.
 - d. The ramus of the mandible has the articular condyle that forms the temporomandibular joints with the temporal bone.
15. Which bones help to warm and humidify air before it enters the lungs?
- a. Vomer
 - b. Pterygoid
 - c. Hyoid
 - d. Turbinates
16. Which of the following bones is *not* considered an internal bone of the face?
- a. Incisive
 - b. Pterygoid
 - c. Palatine
 - d. Vomer

17. Which bone is considered by some authors to be a separate bone of the axial skeleton and not a bone of the skull?

- a. Pterygoid
- b. Hyoid
- c. Palatine
- d. Zygomatic

18. Which of the following bones is *not* paired?

- a. Temporal
- b. Nasal
- c. Ethmoid
- d. Frontal

19. Which of the following bones is paired?

- a. Vomer
- b. Malleus
- c. Sphenoid
- d. Occipital

20. Which of the following statements is true?

- a. Cats and dogs have eight cervical vertebrae.
- b. Intervertebral discs house and protect the spinal cord.
- c. The wings of the atlas can sometimes be palpated just behind the skull.
- d. The dens of the atlas is an important part of the atlantoaxial joint.

21. Which of the following animals has the fewest number of coccygeal bones?

- a. Dogs
- b. Pigs
- c. Cattle
- d. Humans

22. An animal with seven cervical, 13 thoracic, and six lumbar vertebrae *usually* has how many pairs of ribs?

- a. 20
- b. 13
- c. 19
- d. Six

23. Which bone forms a joint with the pelvis?

- a. Sacrum
- b. C7
- c. Coccygeal bones
- d. Tibia

24. Ribs whose ventral ends terminate in muscles of the thoracic walls are called

- a. sternal ribs.
- b. asternal ribs.
- c. floating ribs.
- d. costochondral ribs.

25. Which statement is *true*?

- a. In humans, the tailbone consists of fused sacral bones.
- b. Rib heads are fused to the lateral articular facets of thoracic vertebrae to form suture joints.
- c. The first, most cranial, sternebra is called the xiphoid process.
- d. The hip joint is a ball-and-socket joint.

CHAPTER 7 – MUSCULAR SYSTEM

1. What movement does contraction of the triceps brachii cause?
 - a. Flexion of the wrist
 - b. Circumduction of the arm
 - c. Abduction of the elbow
 - d. Extension of the elbow
2. Which of the following is true?
 - a. A muscle is either an agonist or an antagonist for its lifetime.
 - b. Smooth muscle is striated, just like cardiac muscle.
 - c. Fixators stabilize joints to allow other movements to take place.
 - d. Synergists stabilize joints to allow other movements to take place.
3. Which is a muscle of mastication?
 - a. Trapezius
 - b. Masseter
 - c. Deltoid
 - d. Brachiocephalicus
4. What's the origin of the transversus abdominis muscle?
 - a. Pubis
 - b. Ribs and sternum
 - c. Linea alba
 - d. Xiphoid
5. What's the orientation of fibers of the internal abdominal oblique muscle?
 - a. Cranioventral
 - b. Caudoventral
 - c. Caudodorsal
 - d. Craniodorsal
6. Abdominal muscles are involved in all of the following actions *except*
 - a. parturition.
 - b. defecation.
 - c. urination.
 - d. back extension.
7. What muscle antagonizes the pectoral muscle?
 - a. Biceps brachii
 - b. Deltoid
 - c. Triceps brachii
 - d. Extensor carpi radialis
8. Which of the following is a muscle of the antebrachium?
 - a. Biceps brachii
 - b. Extensor carpi radialis
 - c. Deltoid
 - d. Triceps brachii
9. What muscle has the Achilles tendon on its distal end?
 - a. Gastrocnemius
 - b. Quadriceps femoris
 - c. Biceps femoris
 - d. Semitendinosus
10. Which of the following contracts during inspiration?
 - a. Internal intercostal muscles
 - b. Pectoral muscle
 - c. Diaphragm
 - d. Latissimus dorsi
11. What type of muscle is referred to as voluntary striated muscle?
 - a. Cardiac
 - b. Smooth
 - c. Skeletal
 - d. All of the above

12. What's the name of the basic contracting unit of skeletal muscle?
- a. Sarcoplasmic reticulum
 - b. Myofibril
 - c. Sarcolemma
 - d. Sarcomere
13. Which of the following is true?
- a. A motor unit consists of a muscle fiber and all of the nerve fibers that innervate it.
 - b. A fascicle consists of a nerve fiber and all of the muscle fibers it innervates.
 - c. Each nerve fiber attaches to only one muscle fiber.
 - d. Acetylcholine is released by synaptic vesicles into the synaptic space.
14. What structure connects muscles to bones?
- a. Tendons
 - b. Muscle bellies
 - c. Ligaments
 - d. Sarcomeres
15. Which of the following is *false*?
- a. Both contraction and relaxation require expenditure of adenosine triphosphate.
 - b. When an impulse reaches the sarcoplasmic reticulum, it causes the release of potassium ions into the sarcoplasm.
 - c. Acetylcholine is the neurotransmitter responsible for starting the impulse that leads to muscle contraction.
 - d. Actin filaments are pulled closer together during a muscle contraction.
16. Which phase lasts longest in a twitch contraction?
- a. Latent
 - b. Contracting
 - c. Relaxation
 - d. Refractory
17. What compound provides energy to convert adenosine diphosphate back to adenosine triphosphate?
- a. Acetylcholine
 - b. Myoglobin
 - c. Calcium phosphate
 - d. Creatine phosphate
18. Incomplete glucose breakdown that occurs during anaerobic metabolism can cause a byproduct called
- a. lactic acid.
 - b. creatine phosphate.
 - c. myoglobin.
 - d. glycogen.
19. What type of muscle is called involuntary striated muscle?
- a. Skeletal
 - b. Cardiac
 - c. Smooth
 - d. All of the above
20. What cells have multiple nuclei?
- a. Smooth
 - b. Cardiac
 - c. Skeletal
 - d. All of the above

21. What's the function of intercalated disks?
- a. They cause actin filaments to slide close together.
 - b. They transmit impulses from cell to cell.
 - c. They securely fasten cells together.
 - d. Both b and c are functions.
22. In a healthy heart, where does the pace at which cardiac muscle cells contract originate?
- a. Left ventricle
 - b. Left atrium, specifically the sinoatrial node
 - c. Right atrium, specifically the sinoatrial node
 - d. Right ventricle
23. Which of the following is true?
- a. Sympathetic fibers stimulate the heart to beat harder and faster.
 - b. Parasympathetic fibers stimulate the heart to beat more slowly with less force.
 - c. Neither sympathetic nor parasympathetic fibers are necessary for the heart's function.
 - d. All of the above are true statements.
24. What muscle type is nonstriated, involuntary muscle?
- a. Skeletal
 - b. Cardiac
 - c. Smooth
 - d. Both a and c
25. What structures are the attachment sites for actin and myosin in smooth muscle cells?
- a. Dense bodies
 - b. Z lines
 - c. I lines
 - d. Intercalated disks

ANSWERS

Chapter 6

1. B
2. C
3. A
4. D
5. A
6. B
7. C
8. A
9. B
10. A
11. D
12. B
13. A
14. C
15. D
16. A
17. B
18. C
19. B
20. C
21. D

22. B

23. A

24. C

25. C

Chapter 7

1. D

2. C

3. B

4. B

5. A

6. D

7. B

8. B

9. A.

10. C

11. C

12. D

13. D

14. A

15. B

16. C

17. D

18. A

19. B

20. C

21. D

22. C

23. D

24. C

25. A