

1. Which type of joint is **not** present in the thoracic limb?

A) Gliding	D) Ellipsoidal
B) Spheroidal	E) Ginglymus

C) Trochoid

2. Which is **not** part of the taxonomy of the dog?

A) Canis	D) Animalia
B) Feloidea	E) Vertebrata
C) Fissipedia	

3. This nerve is chiefly derived from the 5th to the 7th cervical spinal cord segments and innervates a mass of voluntary striated muscle within the body cavity. Which type of fibers does it carry the **fewest** of?

A) Sympathetic	D) Autonomic
B) Visceral sensory	E) Somatic sensory
C) Somatic motor	

4. The manica flexoria is formed by the:

A) Tendons of the interosseus muscles
B) Tendons of the superficial digital flexor muscle
C) Tendons of the deep digital flexor muscle
D) Anular ligaments
E) Flexor retinaculum

5. Which is **least** likely distinguished on a plain-film radiograph of the thoracic limb?

A) Radial nerve	D) Humeral joint
B) Acromion	E) Anconeal process
C) Dorsal proximal sesamoid bone	

6. Which is **least** likely distinguished on a plain-film radiograph of the thorax?

A) Left auricle	D) Left subclavian artery
B) Caudal vena cava	E) Tracheal bifurcation
C) Apex of the heart	

7. Significant anatomical differences in the cat are found in all **but** which one?

A) Esophagus	D) Scapula
B) Humerus	E) Ductus arteriosus
C) Clavicle	


8. The outermost layer of the “pericardial sac” (or the “heart sac”) is actually _____.

A) Non-serous	D) Serous
B) Fibrous	E) A serous bilayer
C) The epicardium	

9. If flexion of the elbow joint is compromised, one should suspect damage to which nerve?

A) Radial	D) Median
B) Ulnar	E) Axillary

C) Musculocutaneous

10. Which does **not** match the vertebral nerve?
 A) Transverse foramina
B) Chiefly preganglionic
 C) Autonomic
 D) Motor
 E) Sympathetic
11. Which vertebral count is **incorrect**?
A) Cervical – 8
 B) Lumbar – 7
 C) Caudal – 20
 D) Thoracic – 13
 E) Sacral – 3
12. **T** or **F** Portions of both right and left coronary arteries travel in the coronary groove
13. **T** or **F** Blood flows through the atrioventricular valves during the ~~diastolic~~ **systemic** phase of the heart cycle.
14. **T** or **F** Two of the three major types of muscle receive visceromotor innervation.
15. **T** or **F** A nerve closely applied to the common carotid artery is the vagosympathetic trunk.
16. **T** or **F** The thoracic limb is joined to the trunk by ~~strong ligaments that attach the scapula to the ribs and vertebral column.~~
17. If a dog is lying down in an upright position (like the one shown here), which pad would **not** be in contact with the ground?
A) Tarsal
 B) Metatarsal
 C) Metacarpal
 D) Carpal
 E) Digital
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18. Which two are **furthest** from each other on the body?
 A) Crus and stifle
B) Inguen and philtrum
 C) Larynx and pharynx
 D) Manus and carpus
 E) “Muzzle” and “poll”
19. Which muscle does **not** have an origin or insertion upon the bone it is matched with?
 A) Omotransversarius- scapula
 B) Brachialis- humerus
C) Superficial digital flexor- accessory carpal bone
 D) Deep digital flexor- distal phalanx
 E) Supinator- radius
20. Which muscle does **not** cross the joint it is matched with?
 A) Biceps brachii- humeral
 B) Extensor carpi radialis- midcarpal
C) Brachialis- humeral
 D) Triceps brachii- humeral
 E) Superficial digital flexor- proximal interphalangeal
21. Which artery does **not** branch directly from the artery it is paired with?
 A) Aorta- 7th intercostal
 B) **Brachiocephalic trunk- L. subclavian**
 C) Axillary – lateral thoracic
 D) L. Subclavian- costocervical trunk
 E) Brachial- deep brachial

35. Where is the border between the upper and lower respiratory organs?
 A) At the choanae
 B) At the intrapharyngeal ostium
 C) At the larynx
D) At the thoracic inlet
 E) In a transverse plane through the second intercostal space
36. Which one of the following structures does **not** border the thoracic cavity?
 A) Ribs
 B) Intercostal muscles
 C) Thoracic vertebrae
D) Transversalis fascia
 E) Sternum
37. The following structures form the thoracic inlet, **except which one**:
A) 7th cervical vertebra
 B) 1st thoracic vertebra
 C) Manubrium sterni
 D) Longus colli muscle
 E) First pair of ribs
38. The dog has how many sternal (true) and asternal (false) ribs?
 Encircle the proper answer.
 A) 8 sternal : 5 asternal
 B) 7 sternal : 6 asternal
C) 9 sternal : 4 asternal
 D) 5 sternal : 8 asternal
 E) 6 sternal : 7 asternal
39. The anticlinal vertebra in the dog is a _____.
 A) Cervical vertebra
B) Thoracic vertebra
 C) Lumbar vertebra
 D) Sacral vertebra
 E) Caudal (coccygeal) vertebra
40. The costal cartilages of which ribs form the costal arch in dog?
A) X, XI, XII
 B) XI, XII, XIII
 C) IX, X, XI
 D) VIII, IX, X
 E) VII, VIII, IX
41. Which muscle or muscles contribute by its or their contractions mainly to the craniocaudal extension of the thoracic cavity?
 A) External intercostal muscles
 B) Internal intercostal muscles
 C) Scalenus muscle
D) Diaphragm
 E) Transversus thoracis muscle
42. Which muscles mainly contribute by their contractions to the lateral extension of the thoracic cavity?
A) External intercostal muscles
 B) Internal intercostal muscles
 C) Scalenus muscle
 D) Diaphragm
 E) Transversus thoracis muscle
43. The thoracic cavity is lined by a serous membrane, the pleura. The latter is fixed to the thoracic wall by
A) Endothoracic fascia
 B) Internal intercostal muscles
 C) Internal intercartilaginous muscles
 D) Transversalis fascia
 E) External intercostal muscles

61. The **normal** canine pericardial cavity contains ___ cc of pericardial fluid?
 A) 20
 B) 30
 C) 40
 D) 50
E) None of the above
62. The puncta maxima for auscultation of the left atrioventricular valve is:
 A) Right fifth intercostal space at level of costochondral junction
 B) Left third intercostal space at level of costochondral junction
C) Left fifth intercostal space along sternal border
 D) Right fourth intercostal space between costochondral junction and point of shoulder
 E) Left fourth intercostal space
63. The **most common** point of access for thoracotomy is the _____ intercostal space.
 A) Right 7th
 B) Right 3rd
 C) Right 8-9th
 D) Left 2nd
E) Left 4th
64. T or F The most distal lymph nodes typically found in the thoracic limb are at the elbow joint level.
65. The **best** location for performing cardiocentesis is:
 A) As high as possible in the right 8th intercostal space
 B) As high as possible in the left 7th intercostal space
 C) Through the thoracic inlet
D) Over the left chest wall where the heart beat is best palpated
 E) Ventrally just to the right of the 7th sternebra
66. Which vein is **most likely** to be used for venipuncture?
 A) Axillobrachial
 B) Axillary
 C) **Accessory cephalic**
 D) Omobrachial
 E) Median cubital
67. An elderly dog is presented with a problem that seems to have begun in the past few weeks and gotten a bit worse. You examined this dog a year ago when it was asymptomatic and it had a mild heart murmur that you noted for the first time in its life. It was always healthy in your previous exams since it was a puppy. The murmur is now quite intense and best auscultated low in the mid left thorax. Radiographs reveal enlargement of the heart in the 3-5:00 area on the ventrodorsal view with a pronounced bulge at 2-3:00. Also there is noticeable enlargement on the lateral view from 1-5:00. Which clinical sign is most likely in this dog?
A) Coughing with phlegm production
 B) Pronounced hepatomegaly (huge liver)
 C) Severe ascites (abdomen distended with fluid)
 D) Pronounced splenomegaly (huge spleen)
 E) Widely distended and pulsating external jugular veins
68. T or F The major muscle group identified in the palmar metacarpal region was the interosseus muscles.
69. T or F A major muscle in the retractor group is the latissimus dorsi muscle.

70. Which muscle is **least** likely encountered in dissection when performing a typical thoracotomy?
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|------------------------|-------------------------|
| A) Cutaneus trunci | D) External intercostal |
| B) Longus colli | E) Serratus ventralis |
| C) Scalenus | |
71. **T** or **F** Some qualities distinguishing synovial joints from the other two major types are: joint space, joint capsule and joint fluid.
72. **T** or **F** ~~Aponeurosis~~ is the name given to the type of muscle attachment directly to periosteum.
73. **T** or **F** A myelinated nerve is a peripheral nerve fiber ~~coated with endoneurium~~.
74. **T** or **F** Parasympathetic and somatic motor fibers use the same neurotransmitter.
75. Which structure was being discussed when showing a “sail sign” on a thoracic radiograph?
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|----------------------------|----------------------|
| A) Thymus | D) Apex of heart |
| B) Right cranial lung lobe | E) Cranial vena cava |
| C) Carina | |

MAKE SURE YOU HAVE BUBBLED IN A SINGLE CHOICE FOR EACH AND EVERY ANSWER ON YOUR SCANTRON SHEET BEFORE TURNING IT IN. IT'S TOO LATE AFTERWARD.

END OF EXAMINATION
