

**2006 New York State Senior 4-H Horse Bowl
Round Six**

One-On-One

1. C1 Q. Episodes of muscular weakness due to low levels of potassium known as Hyperkalemic Periodic Paralysis is found primarily in certain lines of which breed of horses?

A. Quarter Horse.

S. DET pg 146, HIH 1060-3 200/4

2. C2 Q. Where does the duct that the tears produced by the lacrimal glands of the eye drain to?

A. The nasal cavity.

S. Kainer plate 45 420/3

3. C3 Q. What tooth is a premolar, but not considered one of the cheek teeth, is variable in the number present and is found in the interdental space?

A. Wolf teeth.

S. HIH 405-1 & 2, DET pg 295 430/3

4. C4 Q. Where is the largest concentration of iron found in the horse's body?

A. In the hemoglobin found in red blood cells. (Accept answers of hemoglobin, red blood cells or blood).

S. Lewis pg 38 440/3

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5. C1 Q. Which size grain kernels – large such as oats, barley and corn, or small such as rye, wheat and milo - does processing of grains improve their digestibility for healthy mature horses?
- A. Small grains.
- S. Lewis pg 77 700/3
6. C2 Q. If two cereal grains are of equal quality, then when looking at the energy provided by each grain, what is the primary consideration on selecting one over the other?
- A. Cost.
- S. Lewis pg 72 710 4
7. C3 Q. What is the wedge shaped structure of the hoof that lies between the lateral cartilages on either side, the deep digital flexor tendon on top and the frog below?
- A. The digital cushion.
- S. Kainer plate 24 & 27 400/4
8. C4 Q. What two bones lie between the stifle and the tarsus?
- A. Tibia and fibula.
- S. Kainer plate 6 400/2

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9. C1 Q. What is the common term used to describe the 2nd and 4th metacarpal bones in the horse?
- A. Splint bones.
- S. Kainer plate 12 400/3
10. C2 Q. Why do the front legs have a greater frequency of unsoundness from concussion and trauma in the horse?
- A. The front legs carry the majority of the weight of the horse (60 - 65%).
- S. Evans pg 145 600/3
11. C3 Q. What tendon is inflamed and swollen in the condition called bowed tendon?
- A. Superficial digital tendon (also accept digital tendon and deep digital tendon).
- S. Lewis pg 216 & 383, Kainer plate 19 800/3
12. C4 Q. Which grain should not make up more than 50% of the horses grain mix because of the potential problem of forming a dough-ball in the horse's stomach?
- A. Wheat.
- S. AYHC-YLM-ADV 302-2 L 700/4

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13. C1 Q. What is the scientific name for the ligament that attaches the splint bone to the cannon bone?
- A. Interosseous ligament.
- S. Evans pg 158-9, DET pg 154 400/4
14. C2 Q. The horse's first eight ribs articulate with the sternum by what structure?
- A. Costal cartilages.
- S. Kainer plate 8 400/4
15. C3 Q. Name the two sets of muscles that function to expand the thorax for inspiration.
- A. 1 – Diaphragm.
2 – Intercostal muscles.
- S. HIH 810-1 450/3
16. C4 Q. In the horse, can canines or tushes be found in the male, female or both?
- A. Both.
- S. Lewis pg 177 430/3

End One-On-One

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Begin Open Questions

17. Q. What is the name of the 6 foot long length of rope used to tie the three legs of the calf in calf roping events?
- A. Piggin' String.
- S. DET pg 212 1060/5
18. Q. Ringbone is found on the joints of the short pastern and can be classified as high or low. If it involves the pastern joint how is it classified?
- A. High ringbone.
- S. Evans pg 161, Lewis pg 401 800/3
19. Q. What is the difference in the action on the nerve of a "nerve block" and "nerving"?
- A. A nerve block uses a local anesthetic to temporarily block the pain for surgery or to diagnose a site of pain. Nerving is the cutting of the nerve to more permanently relieve pain.
- S. Kainer plate 22, Lewis pg 397 420/4
20. Q. Other than urine and sweating, name one other pathway of physiological water loss from a horse's body.
- A. Feces, lactation, or respiration.
- S. Evans pg 244, Lewis pg 4 760/3

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24. Q. Fat soluble vitamins, B vitamins, Calcium and Phosphorus are absorbed in what part of the horse's digestive tract?
- A. Small intestine.
- S. AYHC-YLM-ADV 303- 1 L 430/3
25. Q. What is the name for the structure lying behind the pupil that focuses the light rays to form the image on the retina?
- A. Lens.
- S. DET pg 167 420/3

Toss Up – Bonus Attached

26. Q. Name two items that can be added to a regular stock saddle to keep it centered on the animal's back and allow it to be used as a pack saddle.
- A. Breeching, breastplate or croupier (crupper).
- S. AYHC-YLM-BEG 118-1-2, HIH 1125-1 1020/4

Bonus

27. Q. Bonus question: From distal to proximal name the seven joints of the pelvic limbs.
- A. Coffin, pastern, fetlock, hock, stifle, hip and sacroiliac.
- S. Evans pg 98 400/3

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Resume Open Questions

28. Q. What bone articulates with both the middle and distal phalanges?
A. The Navicular bone, distal sesamoid bone or shuttle bone.
S. Kainer plate 12 400/3
29. Q. What is the common term used to define the injury of the horse where the periosteum of the anterior surface of the cannon bone is inflamed and swollen?
A. Bucked shins.
S. Lewis pg 217 800/3

Last Question of the Round

30. Q. The oldest and most common method of selecting hay is a hands-on appraisal. Other than a visual inspection what two other methods of examination would be used?
A. Feel and Smell.
S. HIH 750-5 700/3