

2006 New York State Senior 4-H Horse Bowl Round Ten

One-On-One

1. C1 Q. What part of the nervous system is involved in the involuntary control of the cardiac muscle of the heart?

A. Autonomic.

S. HIH 840-1, DET pg 18 440/5

2. C2 Q. The hypothalamus secretes gonadotropic releasing hormone (GnRH) to stimulate what other part of the brain?

A. Pituitary gland.

S. HIH 910-6 AYHC-YLM-ADV 326-2 L 480/4

3. C3 Q. What is the name of the vein in the horse that courses down the neck in the groove between the brachiocephalic and sternomandibular muscles and is the primary source for venipuncture in the horse?

A. External jugular vein (accept jugular).

S. Kainer plate 61 440/4

4. C4 Q. Horses are generally fed based on their nutritional class or their status in life and by their weight. What would be a better method of evaluation to base feeding a horse?

A. Condition scoring.

S. HIH 710-4 710/4

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

5. C1 Q. Mineral supplementation is necessary for a mare on forage only during the last three months of pregnancy and during lactation because forage is deficient in what mineral?
- A. Phosphorus.
- S. Lewis pg 232 710/5
6. C2 Q. What breeding technique can be used for a stallion to increase his cover, but prevent him from being overused?
- A. AI – artificial insemination (semen splitting).
- S. Evans pg 376 500/4
7. C3 Q. The coronary arteries supply blood to the heart muscle and are the first branch off of what vessel?
- A. Aorta.
- S. Kainer plate 58 440/3
8. C4 Q. What hormone is released by the uterus to destroy the corpus luteum on the ovary if the mare does not conceive during that estrous cycle?
- A. Prostaglandin.
- S. HIH 910-6 500/4

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

9. C1 Q. What is the proper term for the specialized hairs located on the lips and nostrils?
- A. Tactile hairs.
- S. DET pg 262 420/3
-
10. C2 Q. The national average of live foals versus mares bred is only 50% under human management, but in the 80-90% range in wild horse populations. Give one reason the managed birth rate of the horse is the lowest of all domestic species.
- A. Breeding stock is not chosen for reproductive efficiency, but rather for their athletic success, pedigree or conformation, or mares are asked to breed outside of their natural reproductive season to encourage the birth of foals as close to the universal birth date of Jan. 1st.
- S. HIH 910-4, 5 500/5
-
11. C3 Q. What is the name for the wavelike muscular contractions that move food down the esophagus?
- A. Peristalsis.
- S. DET pg 209 430/4
-
12. C4 Q. Where are two places on the head of the horse where the pulse can be felt using your fingers?
- A. Facial artery (under the jaw) and transverse facial artery (just below the eye).
- S. CAHA, p. 62 440/3

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

13. C1 Q. What is the proper name for the complex of bones that supports the guttural pouches, larynx, pharynx and root of the tongue?
- A. Hyoid bones.
- S. Kainer plate 42 400/5
14. C2 Q. During high intensity exercise when the horse is in an anaerobic metabolic posture, what is the main source of energy the horse mobilizes from storage?
- A. Glycogen (glycolysis is the breakdown of glycogen into lactic acid).
- S. HIH 820-1 760/5
15. C3 Q. Give two reasons why grain sorghum (milo) needs to be ground, rolled or crimped before feeding to horses?
- A. The kernel is small and very hard.
- S. AYHC-YLM-ADV 302-2 L 700/4
16. C4 Q. A 1000lb mature horse of any classification needs how much long-stemmed forage on a daily basis to keep the digestive tract functioning properly?
- A. 10 pounds (accept 8 - 12 lb).
- S. HIH 750-1 710/4

End One-On-One

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

Begin Open Questions

17. Q. How many years out of every seven must a horse business make a profit to be considered a business by the Internal Revenue Service and not a hobby?
- A. 2 years.
- S. HIH 1360-1 1100/5
18. Q. By looking at a horse's teeth, how old is a horse whose Galvayne's groove has completely disappeared from the upper corner incisor?
- A. At least 30 years old (accept 30 years old).
- S. Evans g. 93, Kainer plate 49 430/3
19. Q. Oxytocin is a hormone released by the pituitary gland that stimulates uterine contractions during labor and is also responsible for one other important function in the mare. What is this function?
- A. It stimulates milk let-down.
- S. Evans pg 340 500/4
20. Q. What orthopedic disease of the front foot is a horse predisposed to develop if it is "camped out"?
- A. Navicular or laminitis.
- S. AYHC-YLM-INT 229-2 L 600/4

2006 New York State Senior 4-H Horse Bowl Round Ten

Toss Up – Bonus Attached

21. Q. Name two non-infectious respiratory diseases that will impair the physical performance of a horse.
- A. Exercise induced pulmonary hemorrhage (bleeders or nasal epistaxis)
Laryngeal hemiplegia (roaring)
Chronic obstructive pulmonary disease (heaves)
- S. HIH 810-2 & 3 830/4

Bonus

22. Q. Bonus question: Name four nutrients that good quality legume hay is higher in than good quality grass hay.
- A. Energy
Protein
Calcium
Vitamin B
Vitamin A
- S. AYHC-YLM-INT 202-1 L 700/3

Resume Open Questions

23. Q. What bone of the horse is described by statement “The bone is very porous and blood vessels pass into and out of the pores of the bone. Lateral cartilages are attached to the wings of this bone.”
- A. The third phalanx, also known as the pedal or coffin bone.
- S. Evans pg 687 400/3

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

24. Q. What is the difference between the full gallop as run by a racehorse and a hand gallop used in many horse show classes?
- A. The full gallop becomes a four beat gait. The hand gallop is a three beat gait that remains collected and more of an extended canter.
- S. Evans pg 176, DEI pgs 129 & 117 640/4
25. Q. An inflammation of the tarsal synovial membrane on the inside front portion of the joint causing a noticeable swelling is referred to as what?
- A. Bog Spavin.
- S. Evans pg 165, Kainer plate 32 620/4

Toss Up – Bonus Attached

26. Q. Name two of the three accessory sex glands of the stallion.
- A. Bulbo-urethral, Prostate and Vesicular (Seminal Vesicle) Glands.
- S. AYHC-YLM-ADV 327-1 L, HIH 920-1, Evans pg 360

Bonus

27. Q. Bonus question: The mucous membranes are evaluated as part of the vital signs of a horse. Name four places you can find them to evaluate.
- A. Inner surface of the eyelids
Inside the nostrils
Inner surface of the lips
Gums
Inner surface of the vulva
Inner surface of the rectum (possible but seldom used)
- S. AYHC-YLM-BEG 115-1 L 870/4

2006 New York State Senior 4-H Horse Bowl Round Ten

Resume Open Questions

28. Q. In the horse, which category of teeth is found only as permanent dentition and is never shed?
- A. The molars or last 3 cheek teeth, (also canines).
- S. AYHC-YLM,-ADV 304-1 L 430/3
-
29. Q. What breed is noted for the smooth flowing movement where the forelegs roll to the outside as the horse strides forward called the “termino”?
- A. Peruvian Paso (do not accept Paso or Paso Fino).
- S. Evans pg 43 640/3

Last Question of the Round

30. Q. The coupling is the pivot point of the horse’s back and is supported by which of the horse’s vertebrae.
- A. Lumbar vertebrae.
- S. DET pg 70, HIH 220-6 600/3