







**2005 Eastern National 4-H Horse Bowl  
Round Ten**

**Begin Open Questions**

13. 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. 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

**Toss Up – Bonus Attached**

15. 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

**Bonus Question**

16. Q. Bonus question: 2 part question: What breed of horse is registered on a “temporary” basis until they reach the age of five years? Why is this done?

A. American Miniature Horse, Quarter Pony to insure they do not exceed the maximum breed standard for height at maturity.

S. HIH. P. 154-1 0200/4

## 2005 Eastern National 4-H Horse Bowl Round Ten

### Resume 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

### Toss Up – Bonus Attached

20. 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

## 2005 Eastern National 4-H Horse Bowl Round Ten

### Bonus

21. 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

22. 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
23. Q. Which 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
24. Q. What is the difference between the full gallop as run by a race horse 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

**2005 Eastern National 4-H Horse Bowl  
Round Ten**

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

**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

**2005 Eastern National 4-H Horse Bowl  
Round Ten**

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
- 
30. 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
- 
31. 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

**Last Question of the Round**

32. 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