

2010

Senior Division

One-On-One

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2010
NC State 4-H Horse Bowl Contest
Senior Division
Round 1

8. C4 Q. When using a 2 bin composting system, the composted manure in the first bin would be ready to use after how many months?
A. Two to four months (accept anything in this range)
S. HIH 365-3 920/2
9. C1 Q. How do you measure the size of an English saddle?
A. From the saddle nail to the mid-point of the cantle
S. HIH 1100-3 1000/2
10. C2 Q. What is the purpose of a prophylactic medication?
A. Used to prevent a disease
S. DET p. 221 805/3
11. C3 Q. What is the base coat color of a red roan?
A. Bay
S. ES p. 47, Evans p. 81 300/2
12. C4 Q. If a lactating broodmare should be fed 3% of her body weight in total feed each day, how much total feed should a mare that weighs 900 pounds receive in a day?
A. 27 pounds of total feed intake
S. ES p. 107 700/3
13. C1 Q. To keep their balance on sharp turns some jockeys will ride with one stirrup leather adjusted longer than the other. What is the term used to describe this practice?
A. Acey-deucey
S. DET p. 2 1040/2
14. C2 Q. What is the purpose of a buffer strip in watercourse management?
A. It filters horse waste and soil from the runoff water and slows the water down for better absorption (only need to give one answer)
S. HIH 360-4 920/3

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15. C3 Q. What **two** famous thoroughbred race horses were both known by the nickname "Big Red"?
A. Man-O-War and Secretariat
S. Evans p. 22 200/3
16. C4 Q. What is the name of the person at a rodeo who helps the rider off the bronc when the ride is completed, pulls the flank strap off the bronc and removes the bronc from the arena?
A. The pickup man
S. DET p. 211 1060/3

End One-On-One

Begin Open Questions

17. Q. What color results as a double dilution of bay?
A. Perlino
S. Evans p. 81 300/3

Toss Up – Bonus Attached

18. Q. A horse has both monocular and binocular vision. Of the two, which type of vision allows the horse to see with greater detail by focusing on something with both eyes?
A. Binocular vision
S. ES p. 58 800/2

Bonus Question

19. Q. (Bonus) Name the **five** types of vertebrae and how many vertebrae there are in each region.
A. Cervical (7); Thoracic (18); Lumbar (6); Sacral (5) and Coccygeal (caudal) (accept anything in range of 15-21)
S. Kainer plate 7 410/3

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Resume Open Questions

20. Q. How many acres of **good quality** pasture are required to meet the forage needs of a mature idle horse?
A. 2-3 acres (accept anything in within this range)
S. HIH 730-1 920/2
21. Q. A spavin refers to various diseases of what joint?
A. Hock
S. Lewis p. 404 410/2

Toss Up – Bonus Attached

22. Q. The facial portion of the skull consists of what **three** cavities?
A. Orbital (surrounds the eye); nasal (nose) and oral (mouth)
S. Evans p. 90 410/3

Bonus Question

23. Q. (Bonus) Name **four** features that would be considered as part of of an “**environmental analysis**” before establishing a new horse facility.
A. Topography (slope of land), drainage, prevailing winds, solar radiation, precipitation, vegetation and soil characteristics
S. HIH 310-1 920/3

Resume Open Questions

24. Q. What is the name of the first “true horse”?
A. Equus
S. Evans p. 4; ES p.6 100/3
25. Q. Anemia is the primary symptom of what type of mineral deficiency in the horse?
A. Iron deficiency
S. Evans p. 233 750/3
26. Q. Horses and ponies have 32 pairs or a total of 64 chromosomes. How many chromosomes do domestic donkeys have?
A. 31 pairs or a total of 62 chromosomes
S. ES p. 16 550/3

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Toss Up – Bonus Attached

27. Q. (Two Part) In **most** equestrian events, which side of an obstacle is indicated by a red flag and which is indicated by a white flag?
A. Red flag-right hand side; white flag-left hand side
S. DET p. 230, 293 1070/3

Bonus Question

28. Q. (Bonus) Name **four** clinical signs associated with fescue toxicosis.
A. Prolonged pregnancy
Decreased or absence of milk production
Thick and/or retained placenta
Decreased conception rate
Difficult delivery (thickened amniotic sac)
Foal born weak or dead
Decreased foal growth rate
Abortion
S. Lewis p. 347 700/3

Resume Open Questions

29. Q. This type of breeding is not accepted by all breed associations.
It is the process of recovering a fertilized egg from the uterus of one mare and transferring it to the uterus of another for gestation.
What is this type of breeding?
A. Embryo transfer
S. DET p. 9 510/3
30. Q. What is the general term used for a medication that is used to counteract a poison?
A. Antidote
S. DET p. 12 800/2
31. Q. An American Saddlebred horse would wear what type of protective boots to protect the area of the coronary band and bulbs of the heel?
A. Bell boots (also accept coronet boots or quarter boots)
S. DET p. 26, 69 1000/2

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Last Question of the Round

32. Q. What are the wing-like structures attached to the sides of the coffin bone?
A. Lateral cartilages
S. HIH 505-4 415/2

End of Round 1

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Round 2

9. C1 Q. What ancestral horse was the first to exhibit only one toe?

A. Plihippus

S. ES p. 9

100/2

10. C2 Q. What is coprophagy?

A. Eating feces

S. Lewis p. 386

910/3

11. C3 Q. In regards to equine business, what does the Latin expression “caveat emptor” refer to?

A. Let the buyer beware

S. DET p. 52

940/3

12. C4 Q. What term describes when the rail or top element of a jump is dislodged by the horse during a jump?

A. Knockdown (also accept “rail down” or fault)

S. DET p. 61

1075/2

13. C1 Q. Which type of Encephalomyelitis can be transmitted “horse to horse”?

A. Venezuelan

S. Evans p. 169

820/3

14. C2 Q. Wells should be elevated above the surrounding area at a horse facility and located a minimum of how many feet from horse paddocks?

A. 100 feet

S. HIH 360-1

920/3

15. C3 Q. Identify the **two** equine diseases that are caused by a type of Clostridium bacteria.

A. Tetanus (*Clostridium tetani*) and Botulism (*Clostridium botulinum*)

S. HIH 445-2, 445-8; Lewis p. 168, p. 362 900/3

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Round 2

16. C4 Q. In this type of spotted coat pattern the white rises from the bottom side of the horse and the legs are white with clearly defined edges between the colored and white areas. There is extensive white on the face. What is this pattern?
- A. Splashed white
S. Evans p. 492 300/3

End One-On-One

Begin Open Questions

17. Q. What current breed of horse was known as Steeldusts in the early 1900's?
- A. Quarter Horse
S. Evans p. 25 200/3

Toss Up – Bonus Attached

18. Q. Sweet clover poisoning results in a deficiency of what vitamin?
- A. Vitamin K
S. Lewis p. 51 740/2

Bonus Question

19. Q. (Bonus) Name the **five** different walks in a dressage test.
- A. Working (regular), collected, medium, extended, free
S. Evans p. 172 1090/3

Resume Open Questions

20. Q. What term can be used to describe the condition seen in horses with Wobblers disease or horses experiencing uncoordinated movement? It describes a staggering or stumbling gait.
- A. Ataxia
S. DET p. 17, 295; Lewis p. 381 820/3

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21. Q. What is the average total time food takes to travel through the horse's body from intake through the mouth to waste excretion through the rectum?
A. Approximately 36-72 hours (2-3 days) (accept anything in range of 24-72 hours)
S. ES p. 114 430/3

Toss Up – Bonus Attached

22. Q. What are the **three** types of fittings on an English saddle?
A. Stirrup leathers, stirrup irons and girth
S. HIH 1100-3 1000/3

Bonus Question

23. Q. (Bonus) Many diseases have common or slang terms for them. Give the correct medical terminology for **each** of the following **three** diseases.
Sleeping sickness
Lockjaw
Swamp fever
A. **Sleeping sickness:** Eastern Equine Encephalomyelitis (also accept Equine Encephalomyelitis, encephalomyelitis or encephalitis)
Lockjaw: Tetanus
Swamp fever: Equine Infectious Anemia (also accept EIA)
S. Lewis pp. 168-169, p. 173, p. 175 800/3

Resume Open Questions

24. Q. What breed is known as the "hooded-eye" or "toad-eye" breed?
A. Exmoor
S. HIH 169-1 200/3
25. Q. What is the **minimal** width of a gate that will be used to move equipment in and out of a pasture?
A. At least 12 feet wide
S. Evans p. 771 920/3

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26. Q. What is the correct term for a thick, multi-layered bandage that includes wood or metal splints and is used to restrain and support an injured leg?
A. Robert Jones bandage
S. DET p. 235 810/3

Toss Up – Bonus Attached

27. Q. (Two Part) Hemothorax and pneumothorax are terms used to describe when a particular substance accumulates in the space between the chest wall and the lungs. The presence of what indicates a hemothorax and what indicates a pneumothorax?
A. Hemothorax (blood) and pneumothorax (air)
S. DET p. 138, p. 215 850/3

Bonus Question

28. Q. (Bonus) Name **four** things that horses utilize their sense of smell for.
A. To locate food To identify people
For mares to identify their foals To identify other horses
To smell predators or other danger To identify objects
To identify marked territory of other horses or herds
To ensure that food and water are of acceptable quality
To initiate sexual and breeding behavior
S. ES p. 61 910/3

Resume Open Questions

29. Q. Due to the basic design of a saddle seat saddle, it is sometimes referred to as what type of saddle?
A. "Cut back" saddle (also accept "flat" saddle)
S. HIH 1100-1 1000/3
30. Q. What does it mean if a horse facility is creating a non-point source of pollution to a waterway?
A. Soil and waste contamination are being carried into a waterway, but they do not come from a pipe
S. HIH 360-1 920/3

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31. Q. What breed was developed and used as pack ponies for the lead mining industry in England?
A. Dales pony
S. HIH 169-2 200/3

Last Question of the Round

32. Q. What is the general term for a muscle that straightens or extends a joint?
A. Extensor muscle
S. Evans p. 10 410/2

End of Round 2

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Round 3

8. C4 Q. What is the anatomic term for the area of the reproductive tract in the stallion that transports spermatozoa from the epididymis to the urethra?
A. Vas Deferens
S. Evans p. 358 520/3
9. C1 Q. What is the pangaré effect on color?
A. Results in light areas of color on the muzzle, over the eyes, on the flanks and inside the legs
S. Evans p. 481 310/4
10. C2 Q. What part of the bridle keeps the crown piece from slipping forward over the ears and off the horse's head?
A. Throatlatch
S. HIH 1100-6 1000/2
11. C3 Q. What is the proper term for the behavior category that involves horses signaling for care or attention by calling or movement?
A. Et-epimeletic
S. Evans p. 676 900/3
12. C4 Q. What sex-linked disease results in a deficiency of clotting factor VIII?
A. Hemophilia A (also accept Hemophilia)
S. Evans p. 511 550/3
13. C1 Q. What is the ideal percentage for the moisture content of hay when it is baled?
A. 15-20% (accept anything in this range)
S. Lewis p. 69 780/3
14. C2 Q. Pulmonary hemorrhage or EIPH is a problem that **most commonly** occurs during what type of strenuous activity in horses?
A. Racing
S. Evans p. 111; DET p. 89 450/3

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15. C3 Q. When comparing the nutrient value of timothy and orchard grass in a hay sample, which grass provides the highest percent of crude protein?

A. Orchard grass

S. HIH 760-5 780/3

16. C4 Q. What is a yeld mare?

A. A mare who did not produce a foal during the current season

S. DET p. 297 510/3

End One-On-One

Begin Open Questions

17. Q. In racing terminology, why would a Quarter Horse not be considered a "long horse"?

A. A long horse is bred to race a mile or more (such as the Thoroughbred) and a Quarter Horse races a quarter mile.

S. DET p. 171 1040/3

Toss Up – Bonus Attached

18. Q. The basic coat colors of the horse can be modified four different ways. Name **two** of the ways a color can be modified.

A. Dilutions Roaning Graying Spotting

S. Evans p. 81 550/3

Bonus Question

19. Q. (Bonus) Infection is the result of the presence of organisms in the body that cause health problems or disease. Name **three** types of "infectious agents" or organisms.

A. Bacteria, virus, protozoa, fungus, rickettsia

S. ES p. 167 800/4

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Resume Open Questions

20. Q. In the zoological classification what family includes the horse?
A. Equidae
S. Evans p. 13 100/2
21. Q. In show jumping, a "combination obstacle" consists of two or more separate jumps that are numbered and lettered. For example 4A and 4B would be used to designate the two jumps in a combination obstacle. If you are judging this class, would the jumps **each** receive a score or would they be judged as one obstacle?
A. Judged as one obstacle
S. DET p. 62 1075/3

Toss Up – Bonus Attached

22. Q. Glands in the fundus of the stomach produce what **two** enzymes?
A. Pepsin and Hydrochloric acid
S. Kainer plate 51 430/3

Bonus Question

23. Q. (Bonus) Identify **four** things that would affect the pulse and respiration rates of a **healthy** horse.
A. Exercise/activity, environmental temperature (extreme heat or cold), humidity, age, stress, anxiety (excitement)
S. ES p. 155 800/4

Resume Open Questions

24. Q. What is the vocalization of a donkey called?
A. Bray
S. ES p. 21 200/2
25. Q. What is deglutition?
A. The act of swallowing
S. DET p. 78 430/3

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26. Q. To avoid soil compaction and manure runoff horses should not be grazed under what weather conditions?
A. Avoid grazing during rainy periods when soils are saturated and during winter months (only need to identify one)
S. HIH 360-4, 365-2 920/3

Toss Up – Bonus Attached

27. Q. Name **two** types of hitches used to secure a load on a pack saddle.
A. Single, double, triple or half diamond; Squaw or Arizona
S. HIH 1125-1 1020/3

Bonus Question

28. Q. (Bonus) Identify **three** types of “primitive markings” that might be found on a horse?
A. Dorsal stripe, wither stripe or shadowing (cross), zebra marks on the legs (leg barring or tiger stripes), cobwebbing (spiderwebs) on the forehead (also accept mask or zebra face, darker color on ear tips or entire edge of ear, neck stripe or shadowing, mane and/or tail guard hairs, mottling)
S. ES p. 38 310/4

Resume Open Questions

29. Q. What activity would you be participating in if you are a brumby runner in Australia?
A. You would be capturing wild horses
S. DET p. 41 1070/3
30. Q. When performing a health assessment and checking the horse’s vision, what is the menace reflex?
A. When the horse automatically closes the eye when a hand is moved toward the eye
S. DET p. 179 825/3
31. Q. What type of horse shoe nail has a sharp, beveled head and is used to increase traction on icy surfaces?
A. Frosthead
S. Evans p. 739 900/2

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Last Question of the Round

32. Q. How would the parasympathetic nervous system affect the heart rate?
A. It would lower the heart rate
S. Kainer plate 80 800/3

End of Round 3

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Round 4

One-On-One

1. C1 Q. The drugs Marquis and Navigator are used in the treatment of what disease?
A. EPM (Equine Protozoal Myeloencephalitis)
S. HIH 670-2 805/4
2. C2 Q. What is the term for the pieces of amorphous material found in the allantoic fluid during pregnancy?
A. Hippomanes
S. Evans p. 342 500/3
3. C3 Q. What type of parasite usually only occurs in horses that are grazed in pastures with donkeys?
A. Lungworms
S. Lewis p. 159 835/3
4. C4 Q. In what class is the rider penalized for cueing the horse with the reins?
A. Cutting
S. DET p. 76 1070/3
5. C1 Q. What is the common name for the tranquilizer acetyl promazine?
A. "Ace" (also accept "acepromazine")
S. DET p. 2 805/3
6. C2 Q. What happens to the total nutrient content of hay when it is over-cured and baled with a moisture content that is too low?
A. The nutrient content decreases (because the leaves shatter and fall off)
S. HIH 750-4 700/3
7. C3 Q. How does the function of the placenta differ in passive immunity when comparing equines with humans?
A. In the horse antibodies are not passed across the placental barrier (as in humans) (The foal must obtain antibodies by ingesting colostrum)
S. ES p. 169 510/4

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8. C4 Q. In foxhunting, what is a capping fee?
A. Fee paid by a visitor for a day of foxhunting
S. DET p. 47 1080/4
9. C1 Q. Research indicates that horses do see in color. However, they may have **more** difficulty seeing which color?
A. Red
S. ES p. 60 825/4
10. C2 Q. What rare genetic disease results in missing patches of hair or skin at birth?
A. Epitheliogenesis Imperfecta
S. Evans p. 514 880/4
11. C3 Q. What is the name for the leather straps that fasten the cinch on a Western saddle?
A. Latigo straps
S. DET p. 165 1000/3
12. C4 Q. What medication is used to treat bradycardia?
A. Atropine
S. DET p. 17 805/3
13. C1 Q. What breed of horse is primarily affected by the genetic lethal Combined Immunodeficiency Disease?
A. Arabians (and Arabian crosses)
S. HIH 1060-4 550/3
14. C2 Q. What breed registry is the oldest for an American breed of horse and was founded in 1891 in Louisville, Kentucky?
A. American Saddlebred Horse Association
S. HIH 156-1 200/4
15. C3 Q. What are the **two** main types of stable vices?
A. Oral and escape
S. Lewis p. 370 930/3

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16. C4 Q. This number represents protein content based on nitrogen content in a feedstuff. It estimates the amount that is **actually** available to the horse **during the process of digestion**.
A. Digestible crude protein
S. ES p. 119 760/3

End One-On-One

Begin Open Questions

17. Q. What happens to excess simple sugars when the glycogen storage capacity of the kidneys, liver and muscles are full?
A. They are stored as fat
S. ES p. 146 730/3

Toss Up – Bonus Attached

18. Q. Describe the difference between adduction and abduction as it applies to the movement of the horse's limbs.
A. Adduction is movement toward the center of the body or the median plane; abduction is movement away
S. Kainer plate 18; DET pp. 1-3 410/3

Bonus Question

19. Q. (Bonus) In an intensive management system, there are 3 ways in which manure can be managed. Name **two** of the **recommended** methods for manure management.
A. Compost (remove daily and compost)
Stockpile (remove daily and store in piles)
Daily land application (remove daily and spread on cropland)
(Removal of manure or compost to landfills, dumped in gullies, etc. is not recommended and this answer should not be accepted)
S. HIH 365-1 920/3

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Resume Open Questions

20. Q. A horse with what genetic disease would benefit from a diet that is low in potassium?
A. HYPP or Hyperkalemic Periodic Paralysis (also accept PIPP or Potassium Induced Periodic Paralysis)
S. Lewis p. 298; HIH 1060-6 700/3
21. Q. What is the correct term for the red blood cells that contain hemoglobin and transport oxygen in the blood?
A. Erythrocytes
S. Evans p. 117; DET p. 99 440/3

Toss Up – Bonus Attached

22. Q. What are the **three** basic models of artificial vaginas?
A. Colorado, Missouri and Fujihira
S. Evans p. 376 500/3

Bonus Question

23. Q. (Bonus) Identify the breed of horse that is **most commonly** associated with **each** of the following genetic diseases...
Combined Immunodeficiency
Hyperkalemic Periodic Paralysis
Equine Night Blindness
Aniridia
A. Arabian (CID); Quarter Horse (HYPP); Appaloosa (ENB) and Belgian (Aniridia)
S. HIH 1060-5; ES pp. 98-100 550/4

Resume Open Questions

24. Q. What is the difference between a half pass and a full pass?
A. In a full pass (side pass) the horse moves only sideways; in a half pass the horse moves forward and sideways at the same time
S. DET p. 115, 128 640/3

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25. Q. What synthetic pony breed is a result of crossing Shetland and hackney ponies?

A. Americana

S. Evans p. 66

200/4

26. Q. In regards to markings, describe a "blood mark"?

A. A splotch of dark color on a **base coat color**

S. ES p. 39

310/3

Toss Up – Bonus Attached

27. Q. What are the **three** types of events at a combined training competition?

A. Dressage, cross country and show jumping (stadium jumping)

S. DET p. 62

1070/3

Bonus Question

28. Q. (Bonus) Identify the foundation sire for the following **four** breeds.

Morgan

Tennessee Walking Horse

American Albino

American Saddlebred Horse

A. Justin Morgan (also accept Figure) – Morgan

Allan F-1 (also accept Black Allan) – Tennessee Walker

Old King – American Albino

Denmark – American Saddlebred

S. Evans p. 36, 38, 40, 53

200/4

Resume Open Questions

29. Q. Carrollton Hounds hunted 16 and ½ couple hounds last week.

How many hounds were in the pack?

A. 33 hounds

S. DET p. 70

1080/3

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30. Q. You are judging a Color Class. What is the difference in how you will place this class in comparison to how you would place a halter class?
A. This class is judged on coat color and pattern. Conformation is **not** a deciding factor in this class as it would be in a halter class.
S. DET p. 62, 128 1070/3
31. Q. What mineral deficiency results in a deficiency of Vitamin B12?
A. Cobalt
S. Lewis p. 39 740/4

Last Question of the Round

32. Q. What type of joint is an enarthrosis?
A. Ball and socket joint (example would be the hip joint)
S. Evans p.688; DET p. 91 410/3

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Round 5**

8. C4 Q. What scientific term refers to an organism whose chromosomes do not carry identical members of a given allele pair?
A. Heterozygous
S. ES p. 91 550/2
9. C1 Q. In show jumping, a round that is completed by the rider without jumping or time faults, would be described as what type of round?
A. Clean round (also accept clear round)
S. DET p. 58 1075/3
10. C2 Q. What breed of horse is sometimes called "rat-tailed" because of its characteristic sparse mane and tail?
A. Appaloosa
S. ES p. 51 200/3
11. C3 Q. What is the largest organ in the horse's body?
A. The skin (also accept integument)
S. Kainer plate 5 460/3
12. C4 Q. How often should a manure pile be turned for aeration for optimum composting?
A. Every ten days
S. HIH 360-3 920/4
13. C1 Q. During diestrus in the mare, the corpus luteum is formed and secretes what hormone?
A. Progesterone
S. Evans p. 323 510/4
14. C2 Q. What is the term used when a horse is cantering on one lead in the front and a different lead in the back?
A. Cross-cantering or cross-lobing (also accept "disunited" canter or lope)
S. ES p. 76 640/3

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Round 5

15. C3 Q. What is the purpose of an antipruritic medication?
A. Relieves problems with itching or scratching
S. DET p. 13 805/4
16. C4 Q. What part of the brain controls the basic body functions such as temperature, respiration and heart rate?
A. Brain stem (also accept medulla oblongata)
S. DET p. 37 420/3

End One-On-One

Begin Open Questions

17. Q. What muscular structure is covered with the peritoneum on its abdominal surface and the pleura on its thoracic side?
A. Diaphragm
S. Kainer pate 56 410/4

Toss Up – Bonus Attached

18. Q. Adding steamed bone meal and dicalcium phosphate to feed mixtures will supply the horse with additional sources of what **two** minerals?
A. Calcium and Phosphorus (do not accept Phosphate)
S. YLM 302-2 750/4

Bonus Question

19. Q. (Bonus) In regards to the **location** of the horses, what is the difference between a tandem, unicorn and team hitch?
A. Tandem – 1 horse hitched directly in front of the other
Unicorn – 2 horses hitched side by side with a third in front
Team – horses hitched side by side in pairs (4's, 6's, etc.)
S. DET p. 202, 263, 279 1050/4

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Resume Open Questions

20. Q. What is the total number of bones found in the horse's two carpal joints?
A. 14 or 16 (accept either 14 or 16, do not accept 15)
S. Kainer plate 11 410/3
21. Q. When your horse is carrying a pack load down a steep grade, what piece of rigging other than the cinch needs to be adjusted and pulled tighter?
A. Breeching
S. YLM 118-1L 1020/3

Toss Up – Bonus Attached

22. Q. What are the **three** membranes in the placenta?
A. Chorion, allantois and amnion
S. Evans p. 340 480/4

Bonus Question

23. Q. (Bonus) Name **four** of the five types of white blood cells found in the horse's blood.
A. Eosinophils Monocytes
Neutrophils Lymphocytes
Basophils (also accept mast cells)
S. DET p. 293 440/4

Resume Open Questions

24. Q. When talking about the management of horse facilities, what do the initials BMP stand for?
A. Best Management Practices
S. HIH 360-1 920/4
25. Q. What is the term for the cloth that is draped across the lap of passengers to keep them warm and dry when riding in a carriage?
A. Apron or rug (also accept lap robe)
S. DET p. 14 1050/4

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26. Q. What structure is only present in equids and is a diverticulum or out pouching of the auditory tube?
A. Guttural pouch
S. Kainer plate 46 450/3

Toss Up – Bonus Attached

27. Q. Describe the difference between the dressage movements traverse and renvers.
A. Traverse is haunches in
Renvers is haunches out
S. DET p. 232, 274 1090/4

Bonus Question

28. Q. (Bonus) A synthetic breed is started by crossing two or more breeds and then breeding the first generations of the crossbred animals. Identify the **four** breeds that produced the Trottingbred pony.
A. Standardbred, Shetland, Hackney and Welsh
S. Evans p. 67 200/4

Resume Open Questions

29. Q. For fire safety, a building for hay storage should be located at least how many feet from any other structures?
A. At least 100 feet away
S. Evans p. 781 920/3
30. Q. What is a combination horse?
A. A horse that can be ridden under saddle or driven in harness
S. DET p. 62 1070/3
31. Q. Body tissues, especially cell membranes, are protected from oxidation-induced damage by selenium and which vitamin?
A. Vitamin E
S. Lewis p. 28 740/3

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Round 5

Last Question of the Round

32. Q. What type of medication is an alcohol based substance applied to the horse's legs after exercise to prevent swelling?
A. Brace (also accept liniment)
S. DET p. 36, 169 805/3

End of Round 5

One-On-One

- 1

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Round 6**

7. C3 Q. What is the common name for the coxofemoral joint?
A. Hip joint
S. Kainer plate 31 410/3
8. C4 Q. Why do lactating mares have the best chance of survival after ingesting the poisonous plant, White Snakeroot?
A. The toxin in White Snakeroot (tremetol) is only excreted from the body by lactation
S. Lewis p. 320 770/3
9. C1 Q. What is the name of the piece of canvas that covers and protects the load when packing with horses?
A. Manta
S. HIH 1125-3 1000/3
10. C2 Q. How is a sublingual medication given?
A. Under the tongue
S. DET p. 259 805/4
11. C3 Q. What type of feedstuff is used in horses with respiratory problems as a non-dusty substitute for roughage or fiber and may also be mixed with cereal grains in a commercial concentrate?
A. Beet pulp
S. YLM 302-4L 790/3
12. C4 Q. What is the correct anatomical term for foals with knees or hocks deviating **inward**?
A. Valgus (not varus which is knees or hocks deviating outward)
S. HIH 525-2 620/4
13. C1 Q. Icterus is a result of abnormal accumulation of what substance in body tissues?
A. Bilirubin
S. DET p. 149 830/3

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Round 6

14. C2 Q. What specific activity is being described? This popular event is the rodeo version of cattle work. A cowboy ropes a steer around the horns and then another cowboy ropes the steer's heels.
A. Team roping (also accept heading and heeling)
S. DET p. 263 1060/4
15. C3 Q. How does the shape of the chewing surfaces of the teeth change as the horse ages?
A. Changes from oval to triangular
S. Evans p. 93 430/3
16. C4 Q. Charging refers to the behavior of a horse that suddenly attacks or savages a person or another horse. What does charging refer to in jumping events?
A. Rushing into a fence
S. DET p. 4 1075/3

End One-On-One

Begin Open Questions

17. Q. What is circumduction?
A. Circular movement of an eye or leg
S. DET p. 51 410/3

Toss Up – Bonus Attached

18. Q. There are three factors that must be optimum for the microbes which are necessary for manure composting.
Name **two** of these factors.
A. Temperature, moisture and carbon:nitrogen ratio
S. HIH 365-2 920/4

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Round 6

Bonus Question

19. Q. (Bonus) **Other than vitamin or mineral supplements**, identify **four** things that have been proven to induce a higher rate of hoof growth.
- A. Warm temperature
Irritation or injury to sensitive structures
Increased exercise or wear
Optimum level of feed intake (proper nutrition)
High heart rate
Age of animal (younger-grows faster)
Stimulation of sensitive structures by massage
Counter-irritants or blistering
(Do not accept moisture – it maintains quality/does not increase growth)
- S. YLM 206-2L; HIH 505-6 480/4

Resume Open Questions

20. Q. What is the common name for ileocolonic aganglionosis?
- A. White Foal Syndrome (also accept lethal white foal syndrome and lethal white syndrome)
- S. HIH 1060-6 550/3
21. Q. How many miles did your horse run in a 12 furlong race?
- A. 1 ½ miles (8 furlongs per mile)
- S. Evans p. 20 1040/3

Toss Up – Bonus Attached

22. Q. (Two Part) The location of exostosis or bone growth determines the classification of ringbone. What specific joint is affected in high ringbone and which joint is affected in low ringbone?
- A. Pastern joint (high ringbone)
Coffin joint (low ringbone)
- S. Evans p. 160; Lewis p. 401 620/4

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Bonus Question

23. Q. (Bonus) Identify **three** of the four major factors that predispose the growing horse to any of the developmental orthopedic diseases.
- A. Rapid growth
Trauma to the bone growth plates or articular cartilages
Genetic predisposition
Nutritional imbalances
- S. Lewis p. 283 810/4

Resume Open Questions

24. Q. What is the correct medical terminology for the large quantities of sebum produced by the sebaceous glands in the prepuce of a gelding or stallion?
- A. Smegma
- S. Kainer plate 5 460/3
25. Q. What breed is noted for its excellent conformation as a miniature horse and was developed in Argentina?
- A. Falabella
- S. Evans p. 67 200/4
26. Q. What is the name given to the person who makes the metal parts of tack such as the bits, curb chains and stirrup irons?
- A. Lorimer
- S. DET p. 172 1000/4

Toss Up – Bonus Attached

27. Q. There are 6 basic modifications of the color black. Name **three** of them.
- A. Bay, seal brown, buckskin, dun, grulla and perlino
- S. Evans p. 473 550/4

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Bonus Question

28. Q. (Bonus) Identify **four** types of nutrients that are absorbed in the small intestine
- A. Vitamins
Minerals
Protein
Carbohydrates
Fat
- S. ES p. 111 430/4

Resume Open Questions

29. Q. Composting stall waste for 1 to 2 months reduces the volume of waste by what percentage?
- A. 40-70 percent (accept anything within this range)
- S. HHH 360-3 920/4
30. Q. What is the name for a drop jump that is a solid earthen ramp or wall?
- A. Bank
- S. DET p. 23 1075/4
31. Q. Horses that graze on dew-laden clover pasture or graze clover pasture during wet or humid weather develop a photosensitization. This occurs on white skinned areas especially around the lips, nose and feet. This type of plant poisoning is **commonly** referred to as what condition?
- A. "Dew poisoning"
- S. Lewis p. 314 770/3

Last Question of the Round

32. Q. What is the name of the social and/or sexual behavior in the horse where the animal curls its upper lip and holds its head in the air?
- A. Flehmen Response
- S. ES p. 62 910/2

End of Round 6

One-On-One

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Round 7**

8. C4 Q. What is micturition?
A. Urination
S. Evans p. 119 470/4
9. C1 Q. In regards to supporting leg interference, what do the terms
“brushing” and “striking” describe?
A. The severity of the interference (brushing is slight contact
and striking results in an open wound)
S. Evans p. 179 640/4
10. C2 Q. How did the “doghouse” stirrup get its name?
A. It is the old, wide wooden stirrup and got its name because
“it had enough wood in it to build a dog house”
S. DET p. 83 1000/4
11. C3 Q. Laryngeal hemiplegia or roaring occurs when the larynx does not
fully open on inspiration. What type of anatomic structure is
damaged to create this condition?
A. Nerve to the larynx (also accept nerve or recurrent laryngeal nerve)
S. Evans p. 608; HIH 810-3 820/3
12. C4 Q. What is the term for the musical freestyle performance in dressage?
A. Kur
S. DET p. 162 1090/4
13. C1 Q. Although it is described as German Silver, a bit made from this
material is not made from silver and is actually a combination
of 3 different metals. Name **one** of the metals found in German
Silver.
A. Copper, nickel and stainless steel
S. HIH 1100-10 1000/4
14. C2 Q. What is the name for the ligament that runs from poll to withers
and helps support the horse’s head?
A. Ligamentum nuchae (also accept nuchal ligament)
S. DET p. 168 410/5

2010
NC State 4-H Horse Bowl Contest
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Round 7

15. C3 Q. What condition is caused by *Fusobacterium necrophorum*?
A. Thrush
S. Kainer plate 23 815/4
16. C4 Q. What **two** things will become a problem when 10%
or more of the soil is exposed as a result of overgrazing?
A. Weeds and soil erosion
S. HIH 360-4 920/4

End One-On-One

Begin Open Questions

17. Q. The International Trotting and Pacing Association governs the
rules for what breed?
A. The Trottingbred
S. Evans p. 67 210/3

Toss Up – Bonus Attached

18. Q. A horse with chronic renal failure would require a diet that has
less of certain nutrients. Name **two** of these nutrients.
A. Protein, calcium and phosphorus
S. Lewis p. 296 700/4

Bonus Question

19. Q. (Bonus) Other than death, give **four** symptoms of cyanide poisoning.
A. Cherry-red venous blood, rapid labored breathing, frothing
at the mouth, dilated pupils, incoordination, muscle tremors,
convulsions, dark red or cyanotic mucous membranes
S. Lewis pp. 336-337 770/4

Resume Open Questions

20. Q. Horses with “sweet clover” poisoning would be given intravenous
Vitamin K to treat what hematologic abnormality?
A. Prolonged clotting time
S. Lewis p. 332 770/4

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Round 7

21. Q. Would "jar calks" be found on the front or hind plates on racehorses?
A. Front plates
S. Evans p. 734 900/4

Toss Up – Bonus Attached

22. Q. Gonadotropin releasing hormone is secreted from the hypothalamus and causes the anterior pituitary to release what **two** hormones in the mare?
A. LH (Luteinizing hormone) and FSH (Follicle stimulating hormone)
S. Evans p. 337 510/5

Bonus Question

23. Q. (Bonus) Correctly identify **four** cranial nerves by the following descriptions.
Nerve responsible for the sense of smell
Nerve with three sensory branches to the face, tongue and teeth
Nerve responsible for vision
Nerve responsible for motor function to the face
A. Olfactory nerve (smell)
Trigeminal nerve (face, tongue, teeth)
Optic (vision)
Facial (facial motor)
S. Kainer plate 78 420/5

Resume Open Questions

24. Q. A deficiency of phosphorus or calcium in a **mature horse** would result in osteomalacia. What is the definition of osteomalacia?
A. Softening of the bones (do not accept rickets which is a condition that develops in young growing horses from this dietary deficiency)
S. Evans p. 227, 229; DET p. 197 750/4
25. Q. Although this is probably more commonly known as a slang term for a favorite type of soda, this is also the Spanish term for roping classes. What is this term?
A. Colas
S. DET p. 61 1060/4

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26. Q. This disease results in stretchy skin due to separation between the superficial and deep layers of the skin. HC, HERDA or Equine hyperelastosis cutis is a disease that primarily affects which breed of horse?
- A. Quarter Horses
- S. HIH 675-1 550/4

Toss Up – Bonus Attached

27. Q. Most gaits are symmetrical, indicating that the limb coordination patterns on one side are repeated on the other side half a stride later. Identify the **two** gaits in the horse that are “asymmetrical”.
- A. Canter/lope and gallop
- S. Evans p. 172 640/3

Bonus Question

28. Q. (Bonus) What are **three** methods that can be done to eliminate problems from runoff water?
- A. Divert clean runoff water away from barns, paddocks, manure storage areas and exercise areas
- Reduce the length of slopes on pastures with the use of terraces water bars
- Plant grass in drainage ditches to slow down runoff water
- Plant a vegetative buffer strip at least 10 feet wide between steep slopes and waterways
- S. HIH 360-4 920/5

Resume Open Questions

29. Q. What is the correct medical terminology for the **muscle** that causes the hair to stand on end and helps keep the horse warm in cold weather?
- A. Errectores pilorum (do not accept erector muscle)
- S. DET p. 99 460/4

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Round 7

30. Q. Give **one** advantage of using a double-rigged cinch on a pack saddle.
A. Eliminates the problem of the back cinch sliding back, more comfortable for the horse, usually has extra rings (extra location to tie the lash rope), prevents a "rodeo" ride, less likely to develop skin lesions from friction
S. HIH 1125-3 1020/3
31. Q. Administering a large quantity of a concentrated solution of amino acids, electrolytes, vitamins and glucose into the jugular vein is commonly known as what practice?
A. Jugging
S. DET p. 158 805/4

Last Question of the Round

32. Q. What is the medical term for the type of emphysema when there is an abnormal presence of air **under the skin** of the horse?
A. Subcutaneous emphysema
S. Lewis p. 388 850/4

End of Round 7

2010

Senior Division

One-On-One

1. C1 Q. In feeding management, what is the wicking effect?
A. Uptake of ground moisture into a bale of hay
S. YLM 710-5 700/4

2. C2 Q. What was the original name for the American Saddlebred horse?
A. The Kentucky Saddler
S. Evans p. 39 200/4

3. C3 Q. What mammal has been implicated as the reservoir or definitive host for the protozoa, *sarcocystis neurona*?
A. Opossum
S. ES p. 174; HIH 670-1 830/4

4. C4 Q. What breed of horse has the highest incidence of twin pregnancies?
A. Thoroughbred
S. Lewis p. 240 510/4

5. C1 Q. When referring to chestnut horses, what is a ruano?
A. A red colored horse with lighter points or a flaxen mane and tail
S. ES p. 41 300/4

6. C2 Q. The shoulder joint is unusual because it lacks any heavy ligaments to help stabilize the joint. What type of anatomic structure provides stability for the shoulder joint?
- A. Muscles in the shoulder
- S. Kainer plate 14 410/3

7. C3 Q. What is the scientific term used to describe when body cells split in half?
A. Mitosis
S. ES p. 88 550/4

8. C4 Q. What is a chukka or chukker?
A. The 7 ½ or 8 minute period of play in a polo match
S. DET p. 56 1070/4

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Round 8

9. C1 Q. What would be the result of an improperly inserted stomach tube that strikes the ethmoid bone?
A. Severe bleeding
S. Evans p. 107 400/5
10. C2 Q. You are evaluating a 5 year old **gelding** for purchase and note that the left testicle is slightly larger than the right testicle. Is this a concern?
A. Yes – a gelding should have no testicles. If this was a stallion this would be considered a normal variation
S. Kainer plate 74 520/3
11. C3 Q. What is the purpose of a pillion or an Anquera on a saddle?
A. Attaches to the back of a saddle and enables a passenger to accompany the rider (also called a “rumble seat” or “mother-in-law’s seat”)
S. DET p. 12, 212 1000/5
12. C4 Q. What is the common name for leukoencephalomalacia?
A. Moldy corn disease
S. Lewis p. 357 830/4
13. C1 Q. The veterinarian on call at the equine hospital has requested Sodium Nitrite and Sodium Thiosulfate to treat a horse that ingested a toxic plant. What **specific** type of “sudden death” poisoning is this horse most likely being treated for?
A. Cyanide induced sudden death
S. Lewis pp. 334-337 770/4
14. C2 Q. What is the term for the gene action when the genes at one locus affect the expression of genes at another locus?
A. Epistasis (do not accept epistaxis which is a nosebleed)
S. Evans p. 465 550/4
15. C3 Q. What is the anatomical term for the largest nerve in the horse’s body?
A. Sciatic nerve
S. Evans p. 705 420/4

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16. C4 Q. What is the common name for Equine Monocytic Ehrlichiosis?
A. Potomac Horse Fever
S. Lewis p. 174 835/4

End One-On-One

Begin Open Questions

17. Q. (Two Part) Your mare has foaled and just passed the placenta.
In examining the placenta, what are **two** things you are looking for?
A. A complete placenta with no rips or tears that might indicate
any portion of the placenta was retained
No evidence of infection
(also accept color of placenta and weight of placenta)
S. HIH 940-4; Kainer plate 73 510/4

Toss Up – Bonus Attached

18. Q. You are judging a reining class. When scoring this class
you are aware that each horse automatically begins the pattern with
a score of 70. For each maneuver the horse will receive two scores.
What are the **two** areas that are scored?
A. Maneuver scores (+ or – up to 1 ½ points) and Penalties (for
incorrect performance)
S. HIH 183D-1 1010/4

Bonus Question

19. Q. (Bonus) Give **three** reasons why you would choose to use recycled
newsprint as bedding instead of straw or wood shavings.
A. Newsprint is pollen-free (benefit to horse owners with allergies)
Newsprint has less dust (benefit to horses with respiratory conditions)
Newsprint is lighter in weight (easier to handle and strip/clean)
Newsprint is more absorbent (keeps stalls drier longer and may not
need to change the bedding as often)
Newsprint may be more affordable (cheaper)
Newsprint is more environmentally friendly
S. HIH 330-2 920/5

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Round 8

Resume Open Questions

20. Q. Approximately how much blood does a 1000 pound adult horse have?
A. 13.2 gallons or 50 liters (accept 13 gallons)
S. YLM B119-2L 440/4
21. Q. What term describes a preparation that contains no medication and is administered in order to “simulate” treatment such as in a research study?
A. Placebo
S. DET p. 221 805/3

Toss Up – Bonus Attached

22. Q. During strenuous exercise, muscles involved in locomotion require increased blood flow. Identify **two** physiological means by which the extra quantity of blood is supplied to these muscles.
A. Increased cardiac output (increased heart rate); redistribution of blood away from less active tissues (ex. decreases to kidneys and small intestine and increases to muscles of locomotion and respiration); release of additional red blood cells stored in the spleen
S. HIH 830-2 440/4

Bonus Question

23. Q. The sense of taste in the horse is similar to that of humans. What **four** tastes is the horse capable of sensing?
A. Bitter, sweet, salt and sour
S. ES p. 67 825/4

Resume Open Questions

24. Q. What are **two** physiological functions that will increase the requirement for salt in the horse’s diet?
A. Sweating and lactation
S. Evans p. 236; Lewis pp. 25-26 750/4
25. Q. What is a “FLT” insurance policy?
A. A policy that covers injury or death that results from fire, lightning or transportation
S. HIH 1340-1 920/4

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26. Q. What is the main artery in the thoracic limbs of the horse?
A. Axillary artery
S. Evans p. 706 440/4

Toss Up – Bonus Attached

27. Q. Identify **two** symptoms that would indicate that a foal has a gastric ulcer.
A. Colic Grinding of teeth
Depression Laying on their back
Diarrhea Salivation
Off feed
S. Evans p. 191 830/4

Bonus Question

28. Q. Name **three** types of energy producing nutrients fed to horses.
A. Carbohydrates (starches, sugar, fiber or cellulose), fats and protein
S. ES p. 115 710/5

Resume Open Questions

29. Q. What is the medical term for the acute, highly fatal septicemia that is also known as sleepy foal disease?
A. Shigellosis
S. DET p. 243 800/4
30. Q. Drainage from a three sided run-in shed to an absorption pit or grass waterway should have what percent of slope?
A. Two percent
S. HIH 360-3 920/3
31. Q. What is the minimum ceiling height for a breeding shed?
A. Minimum of 12 to 15 feet high (accept anything within this range)
S. Evans p. 781 920/3

2010
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Round 8

Last Question of the Round

32. Q. What is the common name for the parasite *Dictyocaulus arnfieldi*?
A. Lungworm
S. Lewis p. 159 835/5

End of Round 8

One-On-One

- 1

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Round 9**

8. C4 Q. The heart, trachea and esophagus are located in what **specific** anatomic area of the chest or thorax?
A. Mediastinum
S. DET p. 178 450/4
9. C1 Q. What term is used to describe the flowing movement of the forelegs of the Peruvian Paso in which the forelegs roll to the outside as the horse strides forward?
A. Termino
S. Evans p. 43 640/4
10. C2 Q. If a horse is rubbing its tail or rump, it is commonly thought to be caused by pinworms. Name one other parasite that can cause this behavior in the horse.
A. Lice, mange mites or biting midges (only need to give one answer)
S. Evans p. 640; Lewis p. 158 865/4
11. C3 Q. When planning a horse facility there are many things to consider that are part of the natural environment. What term describes the shape and particularly the slope of the land?
A. Topography
S. HIH 310-1 920/3
12. C4 Q. Identify the following breed. This pony-size equine probably originated in Spain as a result of Spanish Jennet and Barb breeding. It performs four natural gaits that include the walk, trot, canter and running walk.
A. Galiceño
S. Evans p. 445 200/4
13. C1 Q. What disease is a form of low ringbone in which the hoof becomes pyramidal in shape due to the abnormal bone growth?
A. Pyramidal disease or buttress foot
S. DET pp. 43, 224 620/4

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Round 9

14. C2 Q. Name **one** of the two goals of a horse facility's water quality management plan?
A. To reduce runoff and protect groundwater
S. HIH 360-1 920/4
15. C3 Q. The Ellensburg tree and Bear trap saddle are most commonly used for what activity?
A. Bronc-busting
S. DET pp. 26, 90 1000/5
16. C4 Q. What is the proper term for the steel or wooden arms that are fitted to the collar of a harness?
A. Hames
S. DET p. 129 1000/4

End One-On-One

Begin Open Questions

17. Q. What is the most common bacterial cause of diarrhea in adult horses?
A. Salmonella
S. ES p. 171 830/4

Toss Up – Bonus Attached

18. Q. For an ideal team in vaulting there are bigger, stronger vaulters and some smaller vaulters. What are the common terms for **both** of these types of vaulters in a team competition?
A. Bases and flyers
S. HIH 185-2 1010/5

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Round 9

Bonus Question

19. Q. (Bonus) Give the scientific name for each of the following **four** types of parasites... Large pinworms
Bloodworms
Roundworms
Threadworms
- A. Oxyuris equi (large pinworms)
Large Strongyles (bloodworms)
(also accept strongylus vulgaris, strongylus edentatus, strongylus equinus)
Parascaris equorum (roundworms)
Strongyloides westeri (threadworms)
- S. Evans pp. 622, 630, 631, 640 835/5

Resume Open Questions

20. Q. Nigropallidal encephalomalacia occurs when horses eat Yellow Star Thistle or Russian Knapweed. What is the **main** symptom of this type of poisoning?
- A. Destroys the horse's ability to take in and masticate (chew food)
(Also known as the "chewing disease")
- S. Lewis p. 318 770/4
21. Q. A white marking on the forehead is known as a star. What term refers to the occurrence of only a few white hairs in the center of the forehead?
- A. Flame
- S. DET pp. 109, 254 300/4

Toss Up – Bonus Attached

22. Q. What is the difference between hemiparesis and hemiplegia?
- A. Hemiparesis is "weakness" on one side of the body and hemiplegia is "paralysis" on one side of the body
- S. DET p. 137 820/5

Bonus Question

23. Q. (Bonus) What are the **four** breeds of horses that are affected by the sex-linked disease Hemophilia A?
- A. Thoroughbred, Standardbred, Quarter Horse and Arabian
- S. HHH 1060-6, ES p. 99 550/5

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Round 9

Resume Open Questions

24. Q. When a foal is in the transverse ventral presentation for delivery, what part of the foal's body is lodged against the pelvis of the mare and prevents the delivery of the foal?
A. The foal's back
S. Evans p. 424 500/4
25. Q. What is an "ink spot"?
A. A small, dark colored spot seen in the **white areas** of some paint or pinto horses
S. ES p. 39 310/3
26. Q. To protect water sources from manure runoff the manure should be incorporated into the soil as soon as possible after spreading. Water sources will also be protected if manure is spread **at least** how many feet from the water source?
A. At least 150 feet from the water source
S. HIH 365-3, 365-4 920/4

Toss Up – Bonus Attached

27. Q. What is the difference between prognathia and brachygnathia?
A. Prognathia (parrot mouth) upper jaw extends over lower jaw
Brachygnathia (monkey jaw) lower jaw extends over upper
S. Lewis p. 400; DET pp. 36, 221 600/5

Bonus Question

28. Q. (Bonus) What organizations are referred to by the following initials...
USPA; AQHA; AVA and USTA
A. United States Polo Association (USPA)
American Quarter Horse Association (AQHA)
American Vaulting Association (AVA)
United States Trotting Association (USTA) (do not accept
United States Trotting "Horse" Association)
S. HIH 168 B-2, 171 B-1, 182 D-2, 185 D-1 230/4

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Round 9

Resume Open Questions

29. Q. What term describes when the stallion raises and lowers his tail several times after ejaculation has occurred?
A. Tail flagging (also accept flagging)
S. Evans p. 387 520/4
30. Q. Color in the horse is controlled by granules of pigment in the hair, skin, iris of the eye and some internal tissues. What is the name of this pigment?
A. Melanin
S. ES p. 93 460/4
31. Q. Give **two** ways you can encourage better manure distribution in the pasture and avoid concentration of manure in isolated spots in the pasture.
A. Availability of several watering facilities, periodically moving feeding facilities, split pastures, rotational grazing
S. HHH 365-2 920/4

Last Question of the Round

32. Q. What is the proper name of the lower horn on the near side of a sidesaddle?
A. The leaping horn
S. DET p. 166 1000/5

End of Round 9

2010

Senior Division

One-On-One

1. C1 Q. What is the scientific name for the organism that is the cause of the disease EPM (Equine Protozoal Encephalomyelitis)?

A. *Sarcocystis neurona*

S. HIH 670-1

820/5

2. C2 Q. In regards to foxhunting, what is the proper term for the type of dress worn during cubbing season?

A. Rat catcher

S. DET p. 229

1080/5

3. C3 Q. Which breed of horse originated in the United States as a high stepping show ring horse and is a cross of the Arabian and Saddlebred breeds?

A. National Show Horse

S. DET p. 188

200/3

4. C4 Q. Which hormone is responsible for the stimulation of labor contractions and the release of milk?

A. Oxytocin

S. DET p. 200

490/3

5. C1 Q. What is the dressage movement in which the horse trots in a very cadenced, floating manner with a marked period of suspension?

A. Passage

S. DET p. 205

1090/3

6. C2 Q. What is the funnel shaped membrane in the mare that traps the egg when it is released from the ovary?

A. Infundibulum

S. DET p. 152

480/3

7. C3 Q. What type of Western saddle has high “thigh rolls” and usually has no horn?

A. Australian saddle

S. HIH 1100-4

 $1000/3$

**2010
NC State 4-H Horse Bowl Contest
Senior Division
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8. C4 Q. What is the proper name of the bulge on the head of an Arabian horse?
A. Jibbah
S. DET p. 157 200/4
9. C1 Q. What condition is characterized by the inflammation and swelling of the cartilage growth plates in the joints and is often found in rapidly growing young horses?
A. Epiphysitis (also accept physitis)
S. DET p. 98 810/4
10. C2 Q. Identify **one** advantage of the raised inside rim on polo shoes.
A. Increases traction, prevents sliding, enables the foot to roll over faster, allows the horse to pivot on the shoe, allows the horse to maintain a toe grip regardless of where the foot breaks over
S. Evans p. 737 900/3
11. C3 Q. This is the largest and most common group of toxins affecting horses and occurs in both harvested and unharvested feeds. Name this toxin.
A. Mycotoxin
S. Lewis p. 346 700/4
12. C4 Q. What is the term for the breeding of animals or crossing of lines that are unrelated?
A. Outcrossing
S. HIH 1080-1 550/4
13. C1 Q. Volatile fatty acids are produced in the horse's hindgut by microbial action. Name **one** of the two types of microbes that are involved in this production.
A. Bacteria and protozoa
S. HIH 710-2; Lewis p. 389; Evans p. 199 430/3

2010
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Round 10

14. C2 Q. What is the medical term that refers to the paralysis of the jaw that is commonly known as lockjaw?
A. Trismus
S. HIH 645-1 820/4
15. C3 Q. What is the medical term for the condition that develops when the small ureter-like structure in the umbilical cord fails to close when the cord is severed? It results in leakage of urine from the umbilical stump.
A. Pervious urachus (also accept patent urachus)
S. DET p. 210 870/5
16. C4 Q. What is the slang term for a buck strap used by a novice when riding a bucking horse?
A. "Fraidy strap" (it is the leather loop attached to the saddle horn or around the fork to provide a handhold)
S. DET p. 42 1060/4

End One-On-One

Begin Open Questions

17. Q. When comparing the colors black, bay and chestnut in regards to genetics, which of these colors is **dominant** to the other two colors?
A. Bay
S. HIH 1040-1 550/4

Toss Up – Bonus Attached

18. Q. Identify **two** of the three structures found in the umbilical cord.
A. Artery (two), vein and urachus
S. Kainer plate 72 500/4

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Round 10

Bonus Question

19. Q. (Bonus) Identify **four** things that can be done to treat a horse with navicular disease.
- A. Rest/restricted activity
Bar shoe (egg bar) to support the rear of the hoof
(do not accept heart bar shoe as correct answer)
Rocker toe
Raise the heel with wedges
Improve blood circulation – medication Isoxsuprine
Nerving
- S. HIH 540-3 815/5

Resume Open Questions

20. Q. **Camp drafting** is a unique Australian rodeo event. It begins similar to cutting when the rider separates the animal that must be driven through the course from a herd. It is completed at a gallop around a course of poles. What **specific** animal is driven through the course?
- A. A large bull
- S. DET p. 46 1060/5
21. Q. Name **two** types of common pathogenic bacteria or protozoa that may be transmitted in horse manure.
- A. E. Coli; Giardia; Salmonella
- S. HIH 365-5 920/5

Toss Up – Bonus Attached

22. Q. Equine distemper, or strangles, causes fever and intense swelling of which **two** salivary glands?
- A. Submaxillary and parotid glands
- S. DET p. 98 830/4

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Bonus Question

23. Q. (Bonus) Give the common and scientific names of **four** flies that are a problem to horses.

- | | |
|--------------------------------------|---------------------------------------|
| A. House fly | Musca domestica |
| Stable fly | Stomoxys calcitrans |
| Horn fly | Haematobia irritans |
| Face fly | Musca autumnalis |
| Biting midge (punkies or no-see-ums) | Culicoides spp. |
| Common bot fly | Gastrophilus intestinalis |
| Throat bot fly | Gastrophilus nasalis |
| Nose bot fly | Gastrophilus haemorrhoidalis |
| Eye gnats | Hippelates spp. |
| Horse fly | Tabanus atratus; Tabanus trimaculatus |
| Deer fly | Chrysops callidus |
| Black fly (buffalo gnats) | Simulium spp. |
| S. YLM A300-4L | 835/5 |

Resume Open Questions

24. Q. Name the feed-related poisoning that injures the lining of blood vessels in the brain and is produced by the molds *Fusarium moniliforme* and *Fusarium proliferatum*.

A. Moldy corn disease or leukoencephalomalacia

S. Lewis p. 358 790/5

25. Q. (Two Part) Where would you find a Chadwick spring and what is the purpose of it?

A. V-shaped steel spring fitted to the bottom of the foot
 Used to force the wall outward; used for a horse with contracted heels; keeps constant pressure on the bars of the foot (only need to give one of these uses)

S. DET p. 53; Evans p. 750 900/4

26. Q. What is the common name for osteodystrophia fibrosa which occurs due to excess Phosphorus and decreased calcium absorption?

A. "Big Head Disease" (also accept "Miller's Disease" or "Bran Disease")

S. ES p. 132; Evans p. 227 750/4

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Toss Up – Bonus Attached

27. Q. Which **two** vitamins are not produced in the body and must be supplied entirely by the diet?
A. Vitamin A and Vitamin E
S. Lewis p. 42 740/3

Bonus Question

28. Q. (Bonus) Identify **four** areas of the horse that would be visually appraised or palpated when estimating a body condition score.
A. Along the top of the neck
Along the withers
In the crease down the topline (back)
In the area adjacent to the tail head
Over the rib cage
Behind the shoulder/over the point of the shoulder
Over the hook (tuber coxae) and pin (tuber ischii) bones
S. HIH 720-3, 720-4 800/4

Resume Open Questions

29. Q. (Two Part) How many rings are on a Chifney bit and what attaches to each of these rings?
A. Three rings; cheek pieces attach to 2 of the rings and the lead rein/rope attaches to the other
S. DET 13 1000/5
30. Q. Muscle fibers are classified as Type I and Type II. Which type of fiber is fatigue resistant, functions aerobically and is used for long-term, non-strenuous work
A. Type I (slow-contracting fibers)
S. HIH 840-2 410/4
31. Q. To allow the digestive tract to adjust to **dramatic** increases in the amount of concentrates in the diet, the feed should be gradually increased over what period of time?
A. Over a 10 day to 2 week period of time (accept anything within this range)
S. HIH 710-6 700/3

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Last Question of the Round

32. Q. This rare feed-related poisoning occurs when horses consume low amounts of this metal on contaminated forages. It causes progressive weakness, depression, condition loss, regurgitation, slight anemia, and development of a roaring noise when breathing.

A. Lead poisoning

S. Lewis p. 363

700/4

End of Round 10

One-On-One

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Round 11**

8. C4 Q. What type of reins are fastened to the girth and then passed through the rings of the snaffle bit into the rider's hands?
A. Draw reins
S. DET p. 231 1000/4
9. C1 Q. What term refers to the desirable arc a horse's body makes as it goes over a jump?
A. Bascule
S. DET p. 24 1075/4
10. C2 Q. The proximal and distal sesamoid bones serve as pulleys to change the direction of which **specific** tendon?
A. Deep digital flexor tendon (must specify deep not superficial)
S. Kainer plate 12 400/4
11. C3 Q. A rubefacient is a substance that reddens the skin and produces a mild irritation. What is the purpose of using such a substance?
A. Improves circulation to the area (improves healing)
S. DET p.237 805/5
12. C4 Q. How old would a horse be with all adult teeth, the shape of the incisor is triangular, and Galvayne's groove extends from the gum margin to the wearing surface?
A. 20 years old
S. HIH 240-3; Kainer plate 49 430/4
13. C1 Q. Although the symptoms of horses poisoned with locoweed and sage are similar, what is the difference in their recovery?
A. Horses with sage poisoning usually recover in 1-2 weeks; horses with locoweed poisoning usually do not recover
S. Lewis p. 316 770/4
14. C2 Q. In Quarter Horse Racing, what is a speed index?
A. A method of rating racehorses that is determined by both the horse's speed and by the distance covered.
S. DET p. 251 1040/4

2010
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Round 11

15. C3 Q. (Two Part) Where would you find an elliptic spring on a carriage and what is its purpose?
A. Spring under the seats; to absorb shock
S. DET p. 90 1000/5
16. C4 Q. How long after eruption will the permanent teeth of the horse continue to grow?
A. 12 to 14 years (accept anything within that range)
S. Kainer plate 48 430/5

End One-On-One

Begin Open Questions

17. Q. In the horse, what common term would be used to describe an exostosis caused by a tear of the interosseus ligament between the second and third metacarpals?
A. Splints
S. Kainer plate 38; Evans p. 159 810/5

Toss Up – Bonus Attached

18. Q. During the first three months of lactation, the energy requirements of the mare increase significantly above maintenance levels. If you balance the mare's diet for energy needs, name **two** of the three **specific** nutrients that the mare will still be deficient in?
A. Calcium, phosphorus, and protein
S. Lewis p. 230 700/4

2010
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Round 11

Bonus Question

19. Q. (Bonus) Many horse breeds were developed from the bloodlines of other breeds. Place the following **four** breeds in the correct order of development. Begin with the oldest breed and continue with each of the other breeds until all breeds are in the correct timeline.

Thoroughbred

Tennessee Walking Horse

Arabian

American Saddlebred

A. Arabian...Thoroughbred...American Saddlebred....Tennessee Walker

S. HIH 153 B-1, 169 B-1, 173 B-1; Evans p. 40 200/5

Resume Open Questions

20. Q. After what age does a mare's reproductive ability decrease?

A. After 16 years of age (accept any thing between 15 and 17)

S. HIH 940-1, YLM I230-1L 510/4

21. Q. What is the difference between stroke volume and cardiac output?

A. Stroke volume is the amount of blood the heart pumps with each beat and cardiac output is the amount of blood pumped per minute (stroke volume x heart rate)

S. Evans p. 111 440/5

Toss Up – Bonus Attached

22. Q. What are the anatomical names for the **two** cartilage protrusions from the cranial and caudal segments of the sternum?

A. Manubrium and xiphoid

S. Kainer plate 8 410/5

Bonus Question

23. Q. (Bonus) Trace mineralized salt is considered a low-cost way to ensure your horse receives adequate trace minerals. Name **five** of the trace minerals found in a block of trace mineralized salt.

A. Manganese Iron Cobalt

Copper Iodine Zinc

Selenium

S. Lewis p. 26; YLM 302-2L 750/5

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Round 11

Resume Open Questions

24. Q. What is the name of the cowboy who rides on the side of the steer opposite the wrestler and who keeps the steer from running from the wrestler's horse in a rodeo?
A. Hazer
S. DET p. 130 1060/4
25. Q. The genetic disorder osteochondrosis (OC) usually occurs in what general age of horse?
A. Occurs in young horses (during periods of fast growth) (Thoroughbred, Standardbred, Warmblood, Quarter Horse)
S. ES p. 101 550/4
26. Q. During the second stage of labor, you notice the appearance of a red, velvety bulb at the vulva which looks like a basketball. This is commonly referred to as a "red bag". What does this indicate?
A. Premature placental separation (This is an emergency requiring immediate rupture of this membrane to expedite delivery of the foal)
S. HIH 940-4 500/5

Toss Up – Bonus Attached

27. Q. What are the two **main** symptoms of the "Bob-tail Disease"?
A. Loss of long hair from the mane and tail (roached mane and bobtail appearance); circular horizontal cracks in the hoof wall
S. Lewis p. 329 770/4

2010
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Round 11

Bonus Question

28. Q. (Bonus) Identify the causative agent for each of the following **four** bacterial diseases.

Tetanus Strangles
Botulism Anthrax

- A. Clostridium tetani (tetanus)
Streptococcus equi (strangles)
Clostridium botulinum (botulism)
Bacillus anthracis (anthrax)

S. Lewis p. 168, 173, 175, 362 800/5

Resume Open Questions

29. Q. It is important for a foal to receive colostrum within 36 hours after parturition. What are the **two** things that colostrum provides the foal?

A. Colostrum is a laxative and provides the foal with antibodies

S. Evans p. 427 480/4

30. Q. The Trottingbred is a synthetic pony breed developed for sulky racing. Similar to Standardbreds, some are trotters and others are pacers. What is the difference in the distance that they are raced?

A. They race ½ mile (Standardbreds race 1 mile)

S. Evans p. 67 1040/5

31. Q. What is the medical term for the tiny, finger-like extensions in the small intestine that increase absorption of nutrients by increasing the surface area?

A. Villi

S. DET p.283 430/5

Last Question of the Round

32. Q. What breed is famous for its role in Portuguese bullfights and is found in the colors grey, chestnut and brown?

A. Lusitano

S. DET p. 172 200/4

End of Round 11

One-On-One

- 1

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End of Round 11

2010
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Extra Bonus Questions

1. Q. (Bonus) What are the **four** criteria used to evaluate stallion semen?
A. Volume, concentration, motility and morphology
S. Lewis p. 365 520/3

2. Q. (Bonus) Give the common **and** anatomical name for each of the **three** bones located in the foot.
A. Coffin bone or pedal bone (distal or third phalanx)
Short pastern bone (middle or second phalanx)
Navicular bone or shuttle bone (distal sesamoid)
S. Evans p. 686; DET p. 60, 188; Kainer plate 12 480/4

3. Q. (Bonus) There are many variations of the basic gray coat pattern. Identify **four** different terms that refer to a gray horse.
A. Flea-bitten
Dapple gray
Rosettes (bursts of white on gray)
Blue or steel gray (gray on black, liver chestnut or seal brown)
Rose gray (gray on a chestnut)
S. Evans p. 81; ES p. 45 300/5

4. Q. (Bonus) There are five coriums that nourish the hoof. Identify the **five** coriums **and** the area of the hoof that each corium nourishes.
A. Perioplic corium periople
Coronary corium coronary band
Laminal corium sensitive and insensitive laminae (accept laminae)
Sole corium sole
Frog corium frog
S. Evans p. 696 415/5

5. Q. (Bonus) When referring to a horse's vision, where are the **four** "blind spots" located?
A. Front of the head (directly in front of horse)
Under the head and neck
Over the head, neck and back
Directly behind the horse
S. ES pp. 58-60 825/4

End of Extra Bonus Questions

2010
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Tie-Breaker 1

1. Q. What term refers to the gait defect in which the horse places one forefoot directly in front of the other and the horse appears to be tightrope walking?
A. Winding or rope walking (also accept plaiting)
S. Evans p. 181; DET p. 213 640/3
2. Q. What is another name for the horse's sense of touch?
A. The tactile sense
S. ES p. 64 825/4
3. Q. What term describes a hitch with two wheel horses and a single lead horse?
A. Unicorn hitch
S. DET p. 279 1050/3
4. Q. What organ in the horse is the physiological equivalent of the appendix in humans, but is critical to the function of the horse's digestive tract?
A. Cecum
S. ES p. 113 430/3
5. Q. What is the scientific classification of the domestic donkey?
A. *Equus asinus*
S. ES p. 16 200/3

End of Tie-Breaker 1

2010
NC State 4-H Horse Bowl Contest
Senior Division
Tie-Breaker 2

1. Q. What is the term for the period of time in the canter or lope when all four feet are off the ground?
A. Period of suspension
S. ES p. 74 640/4
2. Q. Rotavirus infection is most common in foals up to 6 months old.
What is the **main** symptom of this type of infection?
A. Diarrhea
S. ES p. 179 830/4
3. Q. What is a jump jockey?
A. A jockey who races over hurdles or steeplechase fences
S. DET p. 159 1040/4
4. Q. What is the medical term for the membrane that covers the outer surface of the lungs?
A. Visceral pleura (also accept pleura)
S. DET p. 214 450/4
5. Q. Identify **one** advantage of using a "Happy mouth" bit.
A. Non-allergenic, very gentle (soft rubber bit), apple-flavored
S. HIH 1100-10; DET p. 207 1000/3

End of Tie-Breaker 2

