One-On-One

1. C1  Q.  What is an acquired physical defect that does not interfere with the horse’s usefulness, but it may diminish its value?
   A.  A blemish
   S.  Evans 157, Lewis 382  620/1

2. C2  Q.  Insulin controls glucose levels in the horse’s body. Where is it produced?
   A.  Pancreas
   S.  Evans 127  490/2

3. C3  Q.  What organ is responsible for the production of estrogen and progesterone?
   A.  The ovaries
   S.  HIH 910-4  510/1

4. C4  Q.  What is the common term for a horse whose toes point inward towards each other?
   A.  Pigeon-toed
   Toed-in
   S.  DET 212  600/1
5. C1  Q.  The 1st phalanx is just below what long bone?
   A.  Cannon Bone (Metacarpal III)
   S.  Kainer plate 6  400/3

6. C2  Q.  How old is a horse where all of the permanent incisors are in wear and the horse has what is termed a full mouth?
   A.  5 to 6 years old (accept anything in that range)
   S.  YLM 205-2, DET 115  430/3

7. C3  Q.  All of the horse’s physiological senses are important in training. What is considered to be the most important of these senses for responding to cues in training?
   A.  Touch
   S.  HIH 1220  910/3

8. C4  Q.  Horses have good hearing. What do they do with their ears to help localize the source of the sounds they detect?
   A.  Horses will turn their ears toward the direction of the sound
   S.  Evans 121  420/2
9. C1 Q. The blood leaving the right ventricle of the heart by the pulmonary arteries flows into what organ?
   A. Lungs  
   S. Kainer plate 57  440/2

10. C2 Q. Name a two-beat diagonal gait.  
    A. Trot  
    Rein-back  
    (Pace is incorrect – is not a diagonal gait)  
    S. Evans 173  640/1

11. C3 Q. At what age of the horse do the permanent 1st or central incisors erupt?  
    A. 2 ½ years  
    S. HIH 240-1, Kainer plate 49  430/2

12. C4 Q. What part of the bridle keeps the crown piece from sliding down the horse’s neck?  
    A. Brow band  
    S. HIH 1100-6  1000/3

End One-On-One
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Begin Open Questions

13. Q. What breed is being described? The head is short and broad with large eyes and short, foxy ears. The muscling is short, compact and powerful, which gives it the ability to gain speed quickly. The disposition is calm.
   A. Quarter horse
   S. HIH 153-1 200/2

14. Q. In horseshoeing, what is the name that describes the most commonly used manufactured or preformed shoes?
   A. Keg Shoes
   S. DET 160 900/2

Toss Up – Bonus Attached

15. Q. The gaskin is located between which two joints of the horse’s rear leg?
   A. Stifle and hock (tarsus) – do not accept knee for stifle
   S. HIH 220-3 400/2

Bonus Question

16. Q. Terms for gaits are sometimes synonymous. Give the other name for each of the following gaits: jog, canter, stepping pace and single foot.
   A. Jog - trot
      Canter - lope
      Stepping pace - slow gait
      Single foot - rack
   S. Evans 172, 178, Lewis 390 640/2
Resume Open Questions

17. Q. What is the foundation of any horse ration?
   A. Good quality forage
   S. HIH 750-1 700/1

18. Q. An adult male horse with no wolf teeth would have how many total teeth?
   A. 40 teeth (also accept 38 – sometimes only one set of canines present - Lewis 177)
   S. Kainer plate 48, HIH 240-3 430/1

19. Q. Gooseneck type trailer hitches and bumper-pull trailer hitches should be attached to what part of your vehicle?
   A. Frame of your truck or tow vehicle
   S. YLM 301-1L 960/2

Toss Up – Bonus Attached

20. Q. What are the three basic parts of a bridle?
   A. Headstall, bit, and reins
   S. HIH 1100-6 1000/2
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Bonus Question

21. Q. Give three advantages of castration.
   A. Can keep several geldings in one paddock
      Geldings are easier to care for
      Easier to transport
      Can keep in pasture w/mares
   S. Evans 385
      520/2

Resume Open Questions

22. Q. Identify the breed from the following description: This breed was essential in the development of the Standardbred, American Saddlebred, and Quarter Horse breeds. The U.S. Department of Agriculture had a farm in Middlebury, Vermont that was used to preserve and improve this breed. The horse is known for its all-purpose ability on the farm or in the show ring, and is the only breed named after a single horse.
   A. Morgan
   S. Evans 36
      200/2

23. Q. You are looking at two egg butt snaffle bits that are identical except for the diameter of the mouthpiece. How would the thickness of the mouth piece affect the severity of the bits?
   A. The smaller the diameter of the mouth piece the more severe the bit
   S. HIH 1100-8
      1000/3

24. Q. Identify the horse color from the following description. Body color yellowish or gold; mane and tail may be black, brown, red, yellow, white or mixed; usually has zebra stripes on legs, a transverse stripe over the withers and a dorsal stripe.
   A. Dun (Buckskins do not have dorsal stripes)
   S. HIH 140-1, DET 42, 86
      300/2
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25. Q. In packing a Decker saddle, what is the name of the piece of canvas used to throw over the load as a protective cover?
   
   A. Manta
   
   S. HIH 1125-3 1020/3

Toss Up – Bonus Attached

26. Q. The horse’s small colon lies in between and adjacent to what two parts of the digestive system?
   
   A. The large colon (transverse colon) and the rectum (Do not accept ascending colon)
   (DET 249 is anatomically wrong – the small colon does not lie next to the cecum)
   
   S. Kainer plate 52, HIH 710-2 430/2

Bonus Question

27 Q. Identify the country of origin for the following breeds – Bashkir Curly, Haflinger, Hanoverian and the Exmoor?
   
   A. Bashkir curly – Russia (do not accept U.S. – see DET 8 ref)
   Haflinger - Austria
   Hanoverian – Germany
   Exmoor – England
   
   S. HIH 169-1, Evans 43, 74, DET 8, 25 200/3

Resume Open Questions

28. Q. What is the common negative behavioral consequence for failing to provide your horse with adequate roughage?
   
   A. Your horse will develop vices such as chewing wood and eating bedding.
   
   S. HIH 710-5 700/2
29. Q. What is the term used for the condition where the sensitive and insensitive laminae separates at the white line at the toe?
   A. Seedy toe
   S. Lewis 402
   815/3

30. Q. The bones that make up the spinal column are classified as what type of bone?
   A. Irregular bones
   S. Evans 90
   410/1

31. Q. What is the name for the structure in the abdomen that is multi-layered, hollow and “y” in shape, and suspended by the broad ligaments?
   A. Uterus
   S. YLM I226-1L, HIH 910-3
   510/2

Last Question of the Round

32. Q. In horse racing, what is the term for finishing second in a race?
   A. Place
   S. DET 213
   1040/2
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One-On-One

1. C1 Q. The long hair around a horse’s fetlock, common in draft horses, is commonly referred to as what?
   A. Feathers
   S. DET 105 220/2

2. C2 Q. What is added to sweet feed to serve as a binder and coating to sweeten the feed?
   A. Molasses
   S. Lewis 98, DET 181 700/1

3. C3 Q. Why is copper sometimes used in the mouthpiece of bits?
   A. It increases salivation and makes the mouth more responsive.
   S. HIH 1100-10 1000/3

4. C4 Q. What is the name for thin-walled sacs at the end of the respiratory tree which are the functional units of the lungs for gas exchange?
   A. Alveoli
   S. YLM 325-1L, HIH 810-1, DET 7 450/2
5. C1  Q. What is the term for a horse that is lying down close to a wall or fence in such a way that its legs are trapped and it is unable to get up without assistance?

A. Cast (casted)

S. DET 51 920/3

6. C2  Q. What is the common term used to describe the physis?

A. Growth plate

S. Kainer plate 13 410/3

7. C3  Q. In regards to barn management, what is the key to successful control of flies and other external parasites of the horse?

A. Good sanitation (also accept good management and control of manure.

S. HIH 415-3 865/3

8. C4  Q. What is defined as the distance between successive imprints of the same foot?

A. Stride (also accept stride length)

S. Lewis 405, Evans 169 640/1
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9. C1  Q.  Most foals are born during what part of the day?
   A.  During the night.
   S.  YLM 112-2L  530/1

10. C2  Q.  What is the term used to describe the reproductive habits of a mare when she undergoes multiple estrous cycles only during a specific portion of the year?
    A.  Seasonally polyestrous (need to provide both words)
    S.  HIH 910-5, Lewis 235  510/2

11. C3  Q.  What term is used to describe a dark chocolate shade of the color chestnut?
    A.  Black or liver chestnut
    S.  Evans 80  300/2

12. C4  Q.  Which gait is faster, the trot or the pace?
    A.  Pace
    S.  Evans 175  640/2

End One-On-One
Begin Open Questions

13. Q. Name this unsoundness. This condition involves the cartilage structures of the horse. It may cause lameness initially, but once fully calcified the horse generally becomes serviceably sound. The condition may cause contracted heels in a younger horse. The lateral cartilages are calcified usually resulting from injuries.

   A. Sidebone

   S. HIH 230-4, Evans 160       620/3

14. Q. What is the proper term for the behavior category that involves the giving of care and attention between the mare and the foal?

   A. Epimeletic (not et-epimeletic-signally for care or attention)

   S. Evans 675           910/3

Toss Up – Bonus Attached

15. Q. What are the names of the first and second cervical vertebrae of the horse?

   A. 1st cervical vertebra – Atlas
       2nd cervical vertebra – Axis
       (Do not accept the Yes and No bones – describes the joint, not the bones)

   S. DET 17, 19           410/2

Bonus Question

16. Q. When you are cleaning and picking out your horse’s hoof, name four things that you would inspect the foot for.

   A. Abnormal Growth       Loose Shoes (if shod)
       Bruises             Loose/Missing Nails
       Diseases (thrush/white line)  Puncture Wounds
       Uneven Wear         Lodged debris (dirt, rocks)
       General condition of hoof wall (cracks, splits, dry)

   S. Evans 70            900/3
Resume Open Questions

17. Q. Name the pony described by the following characteristics – mottled skin around muzzle, eyes and genitals area; white sclera encircling the eyes; striped hooves and one of seven approved coat patterns.

   A. Pony of the Americas – POA

   S. YLM 110-3L 200/3

18. Q. What is a double-rigged saddle?

   A. Saddle with 2 cinches

   S. DET 84 1000/2

19. Q. Other than their predominant chestnut color, what other cosmetic feature differentiates the Suffolk from the other two British draft breeds of horse?

   A. The Suffolk has no feathers on its legs

   S. Evans 73 200/2

Toss Up – Bonus Attached

20. Q. The cervix is a highly distensible muscle that serves as a barrier between what two structures in the mare’s reproductive tract?

   A. The vagina and the uterus (uterine body)

   S. HIH 910-1, YLM 326-1L 510/2
Bonus Question

21. Q. Name the 6 joints of the forelimb from proximal to distal.
   A. Shoulder, elbow, knee (carpus), fetlock (ankle), pastern and coffin
   S. Evans 91, Kainer plate 110, 11, 12  410/1

Resume Open Questions

22. Q. What is a combination horse?
   A. A horse that can be ridden or driven in harness
   S. DET 62  1050/2

23. Q. A young horse 8 months of age would have 24 deciduous teeth. What type of teeth does the young horse not have, that it will develop later as permanent teeth?
   A. Molars (also accept canines)
   S. HIH 240-2  430/2

24. Q. Which mineral aids in muscular activity, blood clotting, enzyme activation, and bone formation?
   A. Calcium
   S. DET 45, Lewis 20  750/2
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25. Q. Calks and studs are devices added to horseshoes for what purpose?
   A. Increase traction
   
   S. YLM 231-2  900/2

Toss Up – Bonus Attached

26. Two part Q. What color is the result of a double dilution of bay and what two colors are the results of a single dilution?
   A. Single dilution Dun and Buckskin, double dilution perlino
   
   S. Evans 81  300/2

Bonus Question

27. Q. Horses that are kept in stalls for any length of time depend on a good floor in the stall for comfort and safety. What are four factors you would look for in choosing a flooring material for your horse?
   A. Durable Non-Slip Absorbent
      Easy to Clean Resistant to pawing Expense
      Amount of bedding required Availability
      (do not accept factors for bedding – question is about flooring)
   
   S. YLM 107-2L  920/3

Resume Open Questions

28. Q. What are the first parts of the foal to appear in a normal presentation during parturition?
   A. Front feet or hoof of the forelimb
   
   S. Kainer plate 73, HIH 940-4  510/2
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29. Q. You do not have a crossbuck or Decker saddle available, but want to do packing. What other commonly available saddle could you use with some modifications?

   A. Stock saddle (do not accept McClellan saddle – it is not commonly available)

   S. YLM 118-1L 1020/3

30. Q. When fluorescein dye is applied to the surface of the eye it will indicate any damaged areas to what structure of the eye?

   A. Cornea

   S. DET 110 820/3

31. Q. What is the correct term for eliminating pain from an injured part of the body by cutting a nerve?

   A. Nerving or neurectomy

   S. DET 190 420/2

Last Question of the Round

32. Q. A heart bar shoe would be used temporarily to treat a hoof problem where you want to transfer the weight from the hoof wall to what structure of the hoof?

   A. Frog

   S. HIH 515-4 900/2
One-On-One

1. C1 Q. Horses are very social animals and enjoy living in groups. How is the “pecking order” established in a group of horses?
   A. Through aggression or dominance
   S. Evans 677, Lewis 152 910/3

2. C2 Q. What body cavity does the esophagus travel through on its way to emptying in the stomach?
   A. Thoracic cavity (chest or thorax)
   S. Kainer plate 50 430/2

3. C3 Q. In inches, how tall is a 16 hand horse?
   A. 64 inches
   S. DET 129 220/3

4. C4 Q. The terms transverse process, spinous process, foramen, and arch are used to describe which type of bones?
   A. Vertebra (also accept spinal)
   S. Kainer plate 7 410/2
5. C1  Q. What nutrients are primarily stored in the horse’s body as glycogen?
   A. Carbohydrates (also accept sugar or glucose)
   S. DET 122, Lewis 391 730/3

6. C2  Q. What is the most significant factor in storing hay that will affect the quality of your hay?
   A. Moisture
   S. HIH 710-5 700/2

7. C3  Q. What would the offspring of a mule and a hinny be called?
   A. A miracle – both are sterile.
   S. Evans 76 200/2

8. C4  Q. The appearance of man in North America during the Paleolithic era coincided with the disappearance of the horse from the continent. What early use of the horse by man could have contributed to this?
   A. Use of the horse as food
   S. Evans 5 100/2
9. C1 Q. What is the stimulus for the horse’s winter coat to start to grow?
   A. Decrease in daylight hours (NOT decreased temperature)
   S. YLM 304-2L 460/2

10. C2 Q. To be classified a blaze, the white must cover the full width of which bones?
    A. Nasal bones
    S. Evans 82 310/3

11. C3 Q. What type of medication is used to counteract a poison?
    A. Antidote
    S. DET 12 800/2

12. C4 Q. When comparing the crossbuck and Decker saddles, which is better suited to a sling load that is mantied (mant-teed)?
    A. Decker
    S. YLM 118-1L 1020/3

End One-On-One
Begin Open Questions

13. Q. Where in the horse’s digestive tract are soluble carbohydrates digested to simple sugars and absorbed for use as energy?
   A. Small intestine
   S. HIH 710-1 430/2

14. Q. In draft horses, terrets are rings on the harness. What passes through these rings?
   A. The reins or lines
   S. DET 265 1050/3

Toss Up – Bonus Attached

15. Two part Q Steamed bone meal is considered an excellent natural supplement for what two minerals?
    A. Calcium and phosphorus
    S. YLM 302-4L 750/2

Bonus Question

16. Q. What four bones form the stifle joint?
    A. The femur, patella, tibia, and fibula
    S. Evans 91, Kainer plate 6 410/2
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Resume Open Questions

17. Q. Thoroughpin is a soft, fluid-filled enlargement of the outside of the joint that can be pushed freely from the outside to the inside surface of the joint by palpation. What joint is it found in?
   A. The hock (tarsus)
   S. Evans 165, Lewis 406 620/3

18. Q. How high above the normal resting position of your horse’s head is the recommended minimum height that your trailer should measure?
   A. 10 inches (accept any answer in range 10 – 12 inches)
   S. YLM 301-2L 960/3

19. Q. Name one of the two areas in the world where the early domestication of the horse was believed to have occurred between 4500 and 2500 B.C.
   A. China or Mesopotamia (also accept Asia)
   S. Evans 6 100/3

Toss Up – Bonus Attached

20. Q. Administering drugs to a horse to improve or hinder his performance in a race or competition is known as doping. Name 2 body fluids that may be tested to detect doping.
   A. Urine, saliva, blood
   S. DET 84, 227 800/3
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Bonus Question

21. Q. Foal pneumonia is the major cause of mortality in foals. Name four (4) factors that predispose foals to pneumonia.

A. Dust
   Fluctuations in temperature
   Extremes of temperature humidity
   Parasites
   Stress
   Failure of passive transfer of immunity/no colostrum
   Secondary to other infection ex. Influenza
   Hereditary diseases ex. Combined immunodeficiency
   Prematurity
   Poor nutrition
   Poor ventilation
   Overcrowding
   Dust
   Poor sanitation

S. HIH 950-8, Lewis 259  530/4

Resume Open Questions

22. Q. A properly fitted stirrup iron should allow how much space on each side of the widest part of the rider’s foot?

A. ¼ inch on each side

S. HIH 1100-3  1000/3

23. Q. The first purebred Arabian breeding program in the United States is linked to what United States president who was given two Arab stallions by the Sultan of Turkey?

A. President Ulysses S. Grant

S. HIH 150-1  200/3

24. Q. Which gait is known as the “nearly ideal form of locomotion”, “mother of all gaits, or as “foundation gait”?

A. The walk

S. DET 113, Evans 172  640/2
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25. Q. Frequent urination and eversion of the vulva or winking will occur during what phase of the mare’s reproductive cycle?

A. Estrus or heat cycle

S. HIH 910-1, Lewis 235 510/2

Toss Up – Bonus Attached

26. Two part Q In general terms what is injured in the shoulder to create the muscle atrophy seen in sweeney? What type of horse is this normally found in?

A. A nerve (more specifically the suprascapular nerve)
   Draft breed or horse used in harness

S. Kainer plate 22, DET 260 810/4

Bonus Question

27. Q. In order to register your horse or identify it on a Coggins Test you must provide a description of your horse that will distinguish it from other horses. Other than color and markings, what are four other visual means of horse identification?

A. Muscular dimples/defects  Scars  Cowlicks (hair whorls)
   Lip tattoos  Brands  Chestnut patterns
   Blemishes  Sex  Height

S. Evans 80 960/3

Resume Open Questions

28. Q. What is the common term for the fluid that is produced by the lacrimal glands, collects in the medial canthus, and flows down the nasolacrimal duct?

A. Tears

S. Kainer plate 45, Evans 125 420/3
29. Q. What mineral is synergistic with vitamin E and important in conjunction with vitamin E in protecting body tissues from oxidation induced damage?
   A. Selenium
   S. Evans 234, Lewis 28

30. Q. In rodeo, what is the name for the amount of prize money paid to the winners of each go-round of a competition?
   A. Day money (also accept round money)
   S. DET 78

31. Q. In reference to horse racing, if your horse does not finish in the money what term is used to describe its finish in the race?
   A. Also-ran
   S. DET 7

**Last Question of the Round**

32. Q. What disease is being described? This disease is a rhabdovirus that infects the nervous system of the horse. It can be transmitted to any mammal. There is no treatment and it is fatal if the horse has not been previously vaccinated.
   A. Rabies
   S. Lewis 174, DET 227
**One-On-One**

1. **C1**  Q. Which muscle in the horse separates the abdominal and thoracic cavities?
   
   A. Diaphragm
   
   S. DET 80  410/3

2. **C2**  Q. What is the term for the genetic characteristics that are transmitted to offspring from parents and other ancestors?
   
   A. Heredity or genotype
   
   S. DET 139, 119  550/2

3. **C3**  Q. What vitamin deficiency will result in horses with poor, weak hoof walls?
   
   A. Vitamin A
   
   S. YLM 206-1L  740/3

4. **C4**  Q. Specifically, where are distal spots located?
   
   A. The coronet or coronet band
   
   S. Evans 83  310/3
5. C1  Q.  What highly fatal disease is of concern anytime your horse experiences a wound, particularly a puncture wound?
   A.  Tetanus
   S.  Lewis 163 800/2

6. C2  Q.  Why are roping reins one continuous strap?
   A.  To prevent losing or dropping the reins when working the horse
   S.  HIH 1100-8 1000/3

7. C3  Q.  Where is the thickest part and the point of greatest wear of the hoof?
   A.  The toe of the hoof
   S.  YLM 106-1L 480/2

8. C4  Q.  Which of the following common cereal grains fed to horses is the highest in crude fiber – barley, corn, oats or wheat?
   A.  Oats
   S.  Lewis 71 700/2
9. C1 Q. Nails which are driven to attach the horseshoe should exit the hoof how far above the shoe?
   A. ¾ to 1 inch (20 to 25 mm)
   S. HIH 535-5 900/3

10. C2 Q. What survival advantage does the horse have because of its monocular vision?
    A. Monocular vision allows a horse to detect predators from either side without turning its head. This is particularly important while grazing.
    S. HIH 1220-1, YLM 111-1L 420/3

11. C3 Q. When looking at the horse from the rear, how would you describe a horse whose hocks are too close together?
    A. Cow hocked
    S. DET 71, Evans 154 600/3

12. C4 Q. What is the term for a non-infectious inflammation of the sensitive laminae of one or more hooves?
    A. Laminitis
    S. Evans 166, DET 163 810/3

End One-On-One
Begin Open Questions

13. Q. What vitamin deficiency can result in abnormal hoof growth and development, and can be eliminated by feeding green roughage.
   A. Vitamin A
   S. HIH 505-2 480/3

14. Q. Name the breed from the following description. This breed is distinguished by its balanced agility, temperament and good character. It has a rectangular compact body and powerful crested neck. The eyes are large and wide set. Grey is the dominant color. It has been associated with the Spanish Riding School in Vienna.
   A. Lipizzan (Lipizzaner)
   S. HIH 174-1 200/3

Toss Up – Bonus Attached

15. Q. Give two advantages of using high tensile vinyl fencing.
   A. Safe Strong/Durable Low maintenance
      Longevity Cost effective
   S. HIH 350-5 920/3

Bonus Question

16. Q. You are running your hand down the lateral surface of the foreleg of your horse. Just below the knee you feel a swelling that is firm, but non-painful. What two bones are involved in this swelling, what is this condition called, and is it likely to cause a serious lameness?
   A. Cannon bone (metacarpal 3) and splint bone (metacarpal 4)
      Splints
      No
   S. Evans 159 620/3
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Resume Open Questions

17. Q. What grain is being described? This grain is high in protein and energy. Because of its small kernel it must be processed before feeding. Never allow this grain to be more than fifty percent of the grain mix due to the possibility of forming a gluten ball in the stomach.

   A. Wheat.

   S. YLM 302-2L 700/3

18. Q. What is the name of the vaccine used in horses for prolonged protection against tetanus?

   A. Tetanus toxoid (not tetanus antitoxin – this is temporary protection only)

   S. DET 266 805/3

19. Q. When horses are handicapped in racing, what is done to try to equalize the performance of the horses in that race?

   A. Weight is added – more to the better horses

   S. DET 129 1040/3

Toss Up – Bonus Attached

20. Q. What two ways can the term “broom tail” be used to describe a horse?

   A. A heavy, coarse, full tail.
   An ill-kept horse of uncertain breed and inferior quality
   A Western range horse

   S. Evans 83, DET 41 300/5
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Bonus Question

21. Q. Bandages are one of the common forms of treating an open wound in a horse. What are four reasons for using a bandage?

A. Immobilizes the wound     Promotes healing
Keeps wound clean     Absorbs any drainage
Protects from infection     Keeps medication on/in wound
Protects from further trauma     Reduce swelling
Controls hemorrhage

S. YLM 109-2L                800/3

Resume Open Questions

22. Q. Ideally, in a balanced horse what should be the relationship between the height of the horse at the withers and the length of the body from the point of the shoulder to the point of the hip?

A. They should be the same

S. Evans 133                 600/4

23. Q. A normal healthy mature horse without foot problems has its feet trimmed every six to eight weeks. How often should a foal’s feet be trimmed?

A. Once a month (also accept 30 days or 4 weeks)

S. HIH 535-1, 525-3, Evans 720 900/3

24. Q. What is the term used to describe the nitrogen-containing organic compounds that are the building blocks of proteins?

A. Amino Acids

S. Lewis 380, DET 10          760/2
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25. Q. What disease is being described? There is no effective treatment or vaccination for this disease, but a horse may survive the acute phase of the disease and remain a carrier for the remainder of its life. The virus attacks cells in the horse’s body including the red blood cells and causes anemia and jaundice. All horses should be periodically tested for this disease using the Coggins Test.

   A. Equine Infectious Anemia (EIA)

   S. HIH 630-1, 2

Toss Up – Bonus Attached

26. Q. In reference to actions of the horse, what are two ways the term bolting can be used?

   A. Gulping food rapidly without chewing
      Charging or running off, or an unexpected move or jump

   S. Lewis 382, DET 34

Bonus Question

27. Q. Where are each of the three serous membranes called the pleura, peritoneum, and pericardium found in the horse?

   A. Thoracic cavity – pleura (covers the outer surface of the lungs)
      Abdominal cavity – peritoneum (surrounding the internal organs)
      Surrounding the heart – pericardium

   S. Kainer plate 56

Resume Open Questions

28. Q. What bit is being described? This bit is made out of a material that is non-allergenic. It is a mouthpiece that is very gentle to use and is a soft, apple-flavored rubber.

   A. Happy mouth

   S. HIH 1100-10
29. Q. In bench knee, the cannon bone is set too far to the outside of the knee joint. What defect is this most likely to cause?

A. Splints

S. YLM 229-1L 620/3

30. Q. What structure do the three membranes – allantois, amnion, and chorion – form?

A. The fetal placenta

S. Evans 340 510/2

31. Q. What is the common name for the medication magnesium sulfate that is used to treat hoof abscesses or as a laxative?

A. Epsom salts

S. DET 98 800/3

Last Question of the Round

32. Q. When riding dressage, what is a two-track exercise in which the horse moves forward and sideways at the same time?

A. Half pass (do not accept leg yielding or shoulder in – they are part of the half pass, but do not adequately answer the question)

S. DET 128 1010/3
2007 Eastern National 4-H Horse Bowl
Round One

One-On-One

1. C1  Q. What is the name of the pigment that is responsible for the color of the skin, hair, and eyes?
   A. Melanin (not melatonin)
   S. DET 178, Evans 129  300/3

2. C2  Q. Considering the digestive tract anatomy of the horse, why is it recommended to feed a horse two or three times a day instead of once a day?
   A. The horse has a relatively small stomach.
   S. Evans 202  700/3

3. C3  Q. The genotype of the horse is its genetic makeup. What would be the term used to describe its outward appearance and the physical traits that are visible?
   A. Phenotype
   S. DET 211  550/2

4. C4  Q. The forces exerted by muscles in the distal foreleg are transmitted by tendons. Generally muscles are not found below what joint of the foreleg.
   A. Carpus (knee)
   S. Kainer plate 19  410/3
5. C1  Q. The Jockey Club maintains the registry of Thoroughbreds for the United States, Canada and Puerto Rico. What is the proper name of the register?
   A. The American Stud Book
   S. HIH 157-1  200/3

6. C2  Q. Ehrlichia risticii (air-lick-e-ah ris-tee-chee) is the causative agent of what equine disease?
   A. Potomac Horse Fever
   S. HIH 650-1  800/3

7. C3  Q. Curb is an inflammation of the long plantar ligament of the hock. What conformational defect predisposes a horse to a curb?
   A. Sickle Hocks
   S. HIH 230-7, DET 74, Kainer plate 32  620/3

8. C4  Q. You have just finished installing a beautiful white painted board fence around your pastures but you have a problem. Your horses are fighting over the fence and leaning into it and over it. What can you do to keep the horses off the fence?
   A. Install electric wire on top board inside each side of the fence
   S. Evans 766, Lewis 184-5  920/3
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Round One

9. C1 Q. What is the best way to carry a load on a crossbuck saddle?
   A. In panniers
   S. HIH 1125-1 1020/3

10. C2 Q. Saddle chafes and shoulder rubs from poorly fitted saddles or other tack will create what type of wound on your horse?
    A. Abrasion
    S. YLM 109-1L 860/2

11. C3 Q. The poison cantharidin (can-thar-i-din) is a highly irritating substance that produces inflammation and blistering within hours of contact. What common pest of alfalfa is this toxin found in?
    A. Blister beetle
    S. Lewis 365, DET 46 770/3

12. C4 Q. A weight evaluation of your horse can be made more valuable in assessing the overall health of your horse by using what technique to determine your horse’s body fat level?
    A. Body condition score
    S. HIH 720-3 700/3

End One-On-One
2007 Eastern National 4-H Horse Bowl
Round One

Begin Open Questions

13. Q. The long pastern, cannon, and proximal sesamoid bones comprise what joint of the horse?
   A. The fetlock joint (ankle)
   S. Kainer plate 12, 14 410/2

14. Q. What bit is being described? This bit is sometimes called a cowboy snaffle. It is a curb bit with short, straight, swivel shanks and a broken mouthpiece.
   A. Tom Thumb bit
   S. DET 270 1000/4

Toss Up – Bonus Attached

15. Q. Name two by-products that can be added to a horse’s ration as a source of additional fiber.
   A. Beet pulp, wheat bran, or brewer’s dried grains
   S. HIH 760-8 700/3

Bonus Question

16. Q. Compare the normal heart rate and respiratory rate of the adult horse at rest to the one week old foal.
   A. Accept any answers in the following ranges
      Adult horse 35 – 60 beats/min   Foal 70 to 100 beats/min
      Adult horse 8-16 breaths/min   Foal 20-40 breaths/min
   S. YLM 115-1L, HIH 950-3, Evans 108, 111 530/3
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Round One

Resume Open Questions

17. Q. What sound does a horse make in response to anger?
   A. Squeal
   S. Lewis 153, DET 253 910/3

18. Q. What is the common name for the disease being described? It is caused by anaerobic bacteria, usually as a result of wet and unsanitary conditions. The area of the commissures or sulcus is black and has a pungent odor and the frog is being damaged.
   A. Thrush
   S. YLM 334-1L, DET 268 815/3

19. Q. If you are using a stock saddle for packing, what piece of equipment that goes around the base of the horse’s tail and attaches to the saddle would you use to keep the pack load centered?
   A. Croupier (crupper)
   S. YLM 118-2L, DET74 1020/3

Toss Up – Bonus Attached

20. Q. Name two clear or translucent structures that light must pass through to reach the retina in the horse’s eye.
   A. Cornea and lens
   S. DET 102, Evans 123 420/3
**Bonus Question**

21. Q. From distal to proximal, name the seven joints of the caudal leg.
   
   A. Coffín, pastern, fetlock (ankle), hock, stifle (not knee), hip, and sacroiliac

   S. Evans 98 410/3

**Resume Open Questions**

22. Q. What is the most common use of a liverpool bit?
   
   A. Used for driving (reference specifies heavy harness or plow horses, but research finds it is used in all disciplines of driving)

   S. DET 170 1000/4

23. Q. What is the term for the pivot point of the back that is the area between the last rib and the croup?
   
   A. Coupling or loin

   S. HIH 220-6, DET216 600/2

24. Q. Sweating and lactation are two physiological functions that will increase the free choice consumption of water and what other mineral supplement?

   A. Salt (Sodium and chloride)

   S. Evans 236, Lewis 25-6 750/3
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Round One

25. Q. What is the proper name for the layer of the uterus that is responsible for the powerful contractions that expel the foal at birth?

A. Myometrium

S. HIH 910-3 510/4

Toss Up – Bonus Attached
26. Two part Q Name two diseases caused by the bacteria Clostridia.

A. Tetanus
   Botulism
   Foal septicemia (umbilical cord infection)
   Entererotoxaemia (overeating disease)
   Gangrene (anaerobic muscle infection and septicemia)

S. Lewis 168, 251 & 361, DET 118, Evans 305 800/3

Bonus Question
27. Q. Straw is popular bedding for horses. Give three advantages or situations where straw is preferred and three disadvantages of using straw as a bedding material.

A. Advantages  Foaling stalls  Very absorbent
   Comfortable for horse  Relatively dust free

Disadvantages  Horses eat straw  High labor in cleaning
   Highly combustible  Lg. Amount of storage
   Lg. Volume of debris  Difficult to dispose of

S. HIH 330-1 920/4

Resume Open Questions
28. Q. You reach into your tool box looking for your hoof nippers and grab what looks like nippers, but they have knobs on the ends of the handles. What tool do you have in hand?

A. Pull-offs (pinchers, shoe pullers)

S. HIH 530-1 900/3
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Round One

29. Q. What supplement is the preferred plant-source feed supplement in young growing horses because it has a high level of lysine and in general is considered the most economical protein supplement for all horses?
   A. Soybean meal (do not accept soybeans – they are not high in protein and are not recommended for young horses)
   S. YLM 302-1L, Lewis 83, HIH 760-7 760/3

30. Q. The rear third of the coffin bone does not attach directly to the hoof wall. What elastic structure provides the bridge for this attachment and is important in reducing the concussive forces to the hoof?
   A. Lateral Cartilages
   S. HIH 505–4 480/4

31. Q. Which breed registry is the oldest registry for an American breed of horse? It was founded in 1891 in Louisville, KY.
   A. American Saddlebred Horse Association
   S. HIH 156-1 200/4

Last Question of the Round

32. Q. What is the bacterium responsible for the disease being described? This is an acute, highly contagious disease of the upper respiratory tract. It is characterized by fever, depression, nasal discharge and swelling or abscessation of the lymph nodes in the throat area. Its common name is strangles or shipping fever.
   A. Streptococcus equi
   S. Lewis 173 850/3
One-On-One

1. C1  Q.  If you were able to check the heart rate of your horse on a prolonged gallop, how high would you expect your horse’s heart rate to be?
   A.  Accept any answer in the range 200 to 250 beats per minute
   S.  HIH 851-4  800/4

2. C2  Q.  What breed registry is attempting to maintain the bloodlines of horses brought to the New World by the Spanish 500 years ago?
   A.  The Spanish Mustang Registry (do not accept Mustang Registry – must say Spanish in the answer)
   S.  HIH 183-1  210/4

3. C3  Q.  What is wrong with this statement – The umbilical cord stump should be dipped in a 2% solution of iodine after you cut the umbilical cord.
   A.  The umbilical cord should never be cut – it should be broken. If cut there will be excessive hemorrhage from the stump
   S.  HIH 950-1, Lewis 250  530/3

4. C4  Q.  Why would you examine the wear pattern on the shoe that was just removed from your horse’s hoof?
   A.  An uneven wear pattern on the horseshoe indicates that the foot is breaking over at a point other than at the toe, or that the foot is landing out of balance.
   S.  Evans 742  900/4
2007 Eastern National 4-H Horse Bowl
Round One

5. C1  Q. What is the name of the process of heating a food material, usually
a liquid, to a specific temperature for a specific length of time for the
purpose of destroying bacteria?
   A. Pasteurization
   S. DET 205 700/3

6. C2  Q. What is a characteristic of wire mesh, high tensile wire, and
electric fences that can result in injury to the horses confined by this type of fencing?
   A. These types of fencing are difficult for the horses to see.
   S. HIH 350-4 920/3

7. C3  Q. Why do you measure a horse’s height at the withers?
   A. It is the tallest, reasonably immobile, and most constant part of the
horse’s topline.
   S. Evans 151 400/3

8. C4  Q. What common term would be used to describe a situation where the
superficial flexor tendon is swollen due to tendonitis?
   A. Bowed tendon
   S. Kainer plate 19, DET 36 620/3
9. C1  Q.  What perennial weed has five bright yellow petals and five green sepals and may cause diarrhea and colic if ingested by the horse?
   A.  Buttercups
   
S.  Lewis 306  770/3

10. C2  Q.  When driving a horse and turning right, which rein is the bearing rein?
   A.  Bearing rein is the left rein (rein opposite the direction of the desired movement)
   
S.  DET 25  1050/3

11. C3  Q.  If a horse suddenly starts rubbing its tail or rump, it is commonly thought to be caused by pinworms. However, there are other parasites that can cause this. Name one other parasite that would cause this behavior in the horse?
   A.  Lice, mange mites, biting midges
   
S.  Evans 640, Lewis 158  865/4

12. C4  Q.  What is the part of the brain that controls basic body functions such as temperature, respiration, and heart rate?
   A.  The brain stem (medulla oblongata)
   
S.  DET 37  420/3

End One-On-One
Begin Open Questions

13. Q. In horse racing, what is the term used for a jockey in training?
   A. Apprentice or bug boy
   S. DET 14, 42 1040/3

14. Q. What procedure is being described? Anesthetic injections are given to numb certain parts of the body. This is used to diagnose the location of lameness or to facilitate standing surgeries.
   A. Nerve block, block, or local anesthetic (do not accept nerving)
   S. DET 32, 189 820/3

Toss Up – Bonus Attached

15. Q. Both base wide and base narrow stances place weight unevenly on the hoof. Name two orthopedic conditions that tend to develop due to this uneven weight distribution.
   A. Ringbone and sidebone
   S. HIH 230-3 620/5

Bonus Question

16. Q. Name five ways you can evaluate the fitness and soundness of your horse for training prior to a work or exercise period.
   A. Heart rate  Temperature (not typical, but would accept)
      Respiratory rate  CRT (Capillary refill time – crude measurement of blood pressure)
      Visual observation of the horse at a walk or trot
      Soreness or sensitivity of the back or loin noted while grooming
      Soreness or lameness on flexion testing
      Soreness or lameness on warm-up ride
   S. HIH 851-3 800/3
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Round One

Resume Open Questions

17. Q. In what joint would you find a fibrocartilage structure called a meniscus that is located between the articulating surfaces of that joint?
   A. Stifle or femorotibial joint
   S. Kainer 13 410/5

18. Q. Why is immature hay at the pre-bloom or boot stage more desirable as a feed for horses than mature hay?
   A. At this stage of growth the hay is most easily digested by the horse – the highest leaf to stem ratio and has the highest nutrient value
   S. YLM 337-2L, Lewis 68 700/3

19. Q. What bit is being described? This bit looks like a snaffle bit, but it has slots at the top of the rings for the headstall to be attached and hooks for curb chain attachment.
   A. Kimberwicke
   S. HIH 1100-10, DET 161 1000/3

Toss Up – Bonus Attached

20. Q. Name two organs where you might find Parascaris equorum as adults or larvae.
   A. Small Intestine, lungs, liver
   S. Lewis 157 835/3
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Bonus Question

21. Q. Name the parts of the horse’s foregut in correct order starting from the mouth and including the three parts of the small intestine.

    A. Mouth (not necessary to name)
    Esophagus
    Stomach
    Duodenum
    Jejunum
    Ileum

    S. HIH 710-2, DET 249  430/3

Resume Open Questions

22. Q. What is the term when a horse intentionally canters on the opposite lead to the direction of travel?

    A. Countercanter (not wrong lead)

    S. DET 70  640/3

23. Q. What set of upper and lower teeth appear in the interdental space and are often absent or rudimentary in the mare?

    A. Canine teeth, tushes, or tusks

    S. Kainer plate 48, HIH 240-3, DET 46  430/2

24. Q. Which breed of draft horse has extensive white face and leg markings, long strides with extreme flexion of the knees and hocks, long silky hair on the lower legs and originated in Scotland?

    A. Clydesdale

    S. Evans 72, DET 59  200/3
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25. Q. In general, what is the main difference in the design of a cart and a carriage?
   A. Cart has two wheels and a carriage has four wheels
   S. DET 48, 49 1050/2

Toss Up – Bonus Attached

26. Q. What are two prerequisites necessary for the fly’s life cycle to be successful?
   A. Breeding materials
      Moisture
      Warmth
   S. YLM 300-1L, HIH 415-3 865/3

Bonus Question

27. Q. Open front shelters or run-in sheds have become increasingly popular because of the many advantages they offer. Name five advantages.
   A. Inexpensive to build
      Require less labor
      Less fire hazard
      Can be cleaned w/tractor
      More exercise
      Inexpensive to maintain
      Good ventilation
      Less bedding/horse
      Decreased behavior problems
      Less space/horse compared to stalls
   S. Evans 772 920/3

Resume Open Questions

28. Q. Which bone of the horse am I describing? “The bone is very porous and blood vessels pass into and out of the pores. Lateral cartilages are attached to the wings of this bone.”
   A. The third phalanx, also known as the distal phalanx, pedal, or coffin bone
   S. Evans 686, Kainer plate 12, DET 60 410/3
29. Q. What is the common name for the “four-in-hand knot” that is tied the same as the knot in a man’s tie and is used to secure a saddle in place when a buckle is not used?

A. Cinch knot

S. DET 57 1000/3

30. Q. There are four different types of spavin involving the horse’s hock joint. Which spavin forms a soft distension of the joint due to synovial membrane inflammation?

A. Bog spavin

S. Lewis 404, Evans 165, DET 34 810/3

31. Q. When trailering your horse long distances, it is recommended you offer water to your horse every three to four hours. Since you cannot carry enough water for the entire trip, how can you deal with taste changes in water?

A. Use additives to the water to mask the taste changes such as lemonade, sports drink powder, electrolyte solutions or soft drinks.

S. YLM 301-2 960/4

Last Question of the Round

32. Q. Which chamber of the heart does blood returning from the body by the cranial and caudal vena cava enter first?

A. Right atrium

S. Kainer plate 57 440/3
One-On-One

1. C1  Q. Mycotoxin poisonings from sweet clover produce high levels of dicoumarol which causes a clotting problem by creating a deficiency of what vitamin?
   A. Vitamin K
   S. Lewis 348  770/3

2. C2  Q. What is the proper anatomical name for the three bones of the horse that are found between the knee and the fetlock joints?
   A. Metacarpal bones (II, III and IV) (do not accept metatarsals)
   S. Evans 142, Kainer plate 1, 12, DET 179  410/3

3. C3  Q. What is the difference between the dressage movements of the piaffe and the passage?
   A. The piaffe is done in place while the passage has forward movement
   S. DET 205, 211  1010/4

4. C4  Q. An American Miniature Horse is registered on a temporary basis until they reach five years of age. What requirement must they meet at that age to be permanently registered?
   A. Not exceed the 34 inch height requirement.
   S. HIH 154-1  200/4
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5. C1  Q. In striding leg interference, a moving leg makes contact with another moving leg. What is this called when it occurs at a slow trot, disappears at a faster trot, and causes a characteristic clicking sound?

A. Forging

S. Evans 179 620/4

6. C2  Q. What is a common term for the vallate, foliate and fungiform papillae found on the tongue?

A. Taste buds

S. Kainer plate 50 430/3

7. C3  Q. When looking at infectious diseases in the horse, what is the term for the time period between the exposure to an infectious agent and the development of the first clinical signs?

A. Incubation or incubation period

S. Lewis 393, DET 151 800/3

8. C4  Q. The formula of heart girth squared times the body length divided by 330 will give you a good approximation of what for your horse?

A. Body weight

S. YLM 303-2L 700/3
9. C1 Q. What type of water testing would be done at an equine facility to determine potential fecal contamination of a water source?
   A. Fecal coliform counts
   S. HIH 360-1 920/4

10. C2 Q. Name one area on which a “leverage” bit places pressure that a “non-leveraged” bit does not.
    A. Poll or under the chin (curb groove)
    S. HIH 1100-8 1000/3

11. C3 Q. What is the term for the mucous membrane that lines the inside of the eyelid?
    A. Conjunctiva
    S. DET 67 420/3

12. C4 Q. A cool down period of activity is essential after vigorous exercise to allow your horse to eliminate any accumulated lactic acid. What will be the consequence for the next 24 to 48 hours if you do not do this?
    A. Sore muscles
    S. HIH 851-9, 895-1 810/4

End One-On-One
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Round One

Begin Open Questions

13. Q. What color pattern would your paint horse be classified given the following description? All four legs are white below the knees and hocks. Your horse has a star and stripe. The white body markings are regular, oval-shaped, distinct, and extend down the neck and chest. White crosses the back.

   A. Tobiano

   S. HIH 159-3, Evans 48 310/4

14. Q. Short, straight pasterns are associated with what other conformation problem?

   A. A straight shoulder (also accept upright)

   S. Evans 146 620/3

Toss Up – Bonus Attached

15. Two Part Question. Explain how the plant maturity of grass hay and legume hay are visually determined.

   A. The amount of seed heads of grasses and the amount of flowers present on legumes (note that color is not correct – color can be influenced by factors other than maturity)

   S. YLM 337-1L, Lewis 68, 69 700/3

Bonus Question

16. Q. A farrier generally uses two different types of hammers. What are their proper names and what are the differences in their use? Which one is heavier?

   A. Rounding or turning hammer – used for making and shaping shoes

   Driving hammer – used for driving nails and forming and finishing the clinches. The claws of the driving hammer are used for wringing off the nails.

   The rounding hammer weighs 2 to 2 ½ pounds and the driving hammer weighs less than one pound

   S. HIH 530-2, 530-4, Evans 728 900/3
Resume Open Questions

17. Q. Where is the occipital crest located on the horse?
   A. At the top of the head between the ears
   S. DET pg. 194

18. Q. Cribbing is one of the more common vices found in horses. If you detect this vice in your horse early, what is the best and most successful method of eliminating it?
   A. Cause alleviation – eliminate the motivation or common causes of frustration and boredom (do not accept cribbing straps – they are punishment or discipline methods that never eliminate the motivation)
   S. Lewis 375

19. Q. Using the proper name (genus and species), what parasite is being described. The life cycle takes six to seven months with the adult ending up in the large intestines. The larvae migrate to the anterior mesenteric artery and may cause problems within the digestive tract by forming clots. They are the most dangerous of the three large strongyles.
   A. Strongylus vulgaris
   S. HIH 430-2

Toss Up – Bonus Attached

20. Two part Q What is the name for the “bump” in the middle of a curb mouthpiece and what does it do?
   A. Port and it relieves pressure on the tongue, applies pressure to the roof of the mouth
   S. HIH 1100-10
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Round One

Bonus Question

21. Q. Name the breed associated with each of the following five horses – Figure, Hambletonian, Black Hand #1, Allan F-1 and Janus.

   A. Figure – Morgan  
   Hambletonian – Standardbred  
   Black Hand #1 – POA  
   Allan F-1 – Tennessee Walking Horse  
   Janus – Quarter Horse

   S. HIH 151-1, Evans 24, 28, 36, 40  200/3

Resume Open Questions

22. Q. The coronary arteries are the first branch off of the aorta and carry blood to what structure?

   A. The heart muscle

   S. Kainer plate 58  440/3

23. Q. In good pasture management, to maximize regrowth of pasture and minimize weed invasion, what should be prevented?

   A. Overgrazing

   S. Lewis 105  970/3

24. Q. What is the proper name for the cranial nerve that provides the horse with a sense of smell?

   A. Olfactory nerve

   S. Kainer plate 78  420/3
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Round One

25. Q. What term is used to describe the unsoundness that is rarely found in ponies and is less common in the light breeds than in the draft breeds? It is a calcification of the lateral cartilages of the coffin bone.

A. Sidebone

S. Evans 160, Lewis 403 620/4

Toss Up – Bonus Attached

26. Q. What two bones articulate with the distal sesamoid bone?

A. Short pastern (middle phalanges, second phalanx)
Coffin bone (distal phalanges, third phalanx, pedal bone)

S. Kainer Plate 12, Evans 98 410/3

Bonus Question

27. Q. What are the eight letters of the small (20m X 40m) dressage ring starting with the entry point and going clockwise?

A. A-K-E-H-C-M-B-F

S. DET 85 1010/4

Resume Open Questions

28. Q. What medication is being described? This medication may be used to treat severe asthma or anaphylactic reactions. It causes contraction of capillaries and arteries by “stimulating” the sympathetic nervous system. It causes an increase in the heart rate and blood pressure.

A. Adrenalin (epinephrine)

S. DET 4 800/4
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Round One

29. Q. What breed of horse that originated in the Ural Mountains of Russia, is especially well adapted to extremely cold weather, and noted for its long, curly coat of hair?

   A. American Bashkir Curly (accept Bashkir Curly)

   S. DET 8, Evans 57

   200/3

30. Q. What is the primary function of the “short bones”?

   A. Absorb concussion

   S. Evans 90

   410/3

31. Q. It is January and you are looking at a new boarding facility for your horse. It is clean, warm and comfortable in the barn. What might be the problem with this barn if you see condensation dripping from parts of the ceiling and there is a significant ammonia odor?

   A. Poor ventilation

   S. Lewis 183

   920/3

Last Question of the Round

32. Q. What thin plate of cartilage sits in front of the larynx and prevents swallowed materials from going down the trachea?

   A. Epiglottis

   S. DET 97

   450/3
One-On-One

1. C1  Q.  Conformation of the forelegs is particularly important because they carry what percent of the horse’s weight?
   A.  65% (accept any answer in the range 60 – 65%)
   S.  HIH 230-1  600/4

2. C2  Q.  Flunixin meglumine (flu-nix-in meg-lu-mine), ketoprofen and phenylbutazone are used in the treatment of laminitis. What type of medication are these drugs?
   A.  NSAID (N-Said) non-steroidal anti-inflammatory drug (would also accept anti-inflammatory)
   S.  HIH 640-2  810/4

3. C3  Q.  When a horse is fed a balanced hay-grain ration, it generally takes about how many hours for the ingested material to pass through the digestive tract and be passed as fecal material?
   A.  72 hours (accept any answer in range 64 to 80 hours)
   S.  Evans 194  700/4

4. C4  Q.  At around nine years of age, what marker on the occlusal or grinding surface of the horses tooth is revealed when the tooth is worn down to the level of the pulp cavity?
   A.  Dental star
   S.  Kainer plate 48, HIH 240-3  430/4
5. C1  Q. You have a mare that weighed 1,000 lb prior to breeding. How much do you estimate her foal will weigh at birth?
   A. 90 to 100 lb (9 % to 10% of the mare’s body weight)
   S. HIH 940-5

6. C2  Q. In dressage, what type of walk is being described? The head and neck nod up and down twice during each stride. The gait is ground-covering and the head and neck extended. The rear feet overreach the prints of the front feet.
   A. Extended walk
   S. Evans 172

7. C3  Q. What is the term for a specialized type of horseshoe pad that can be removed to treat or apply medication to the hoof and then reattached?
   A. Hospital pad
   S. HIH 515-5

8. C4  Q. What is the proper name for the eye formed on the end of the lariat through which the rope is passed to form a loop?
   A. Honda
   S. DET 141
9. C1  Q.  In the horse’s muscles, the anaerobic break down of glucose creating the waste product lactic acid during hard exercise is performed in the absence of adequate levels of what specific element?
   A.  Oxygen

S.  HIH 850-1  410/3

10. C2  Q.  Open front shelters or run-in sheds have become increasingly popular because of the many advantages they offer. However, there are several disadvantages. Name one.
   A.  Unable to monitor diet
   Unable to control exercise
   Safety issues/increased risk of injury to horses

S.  Evans 772  920/3

11. 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 188  200/3

12. C4  Q.  What is the name of a common skin condition of the horse that can resemble an ulcerated wart and may be caused by a virus?
   A.  Sarcoid

S.  DET 240  860/3

End One-On-One
Begin Open Questions

13. Q. There are no specific treatments for some poisonings, but horses are usually given activated charcoal and a saline laxative by stomach tube. What is the reason for giving these medications?

A. To prevent further absorption of the toxin in the gastrointestinal tract (the activated charcoal binds with the toxin and the saline laxative speeds passage of any toxins through the digestive tract).

S. Lewis 339 830/4

14. Q. Ventilation of a stable area is important for many reasons. In the hot summer it can provide cooling for the horses. The temperature in a properly ventilated barn should be no more than how many degrees above the outside temperature?

A. 5 degrees Fahrenheit

S. YLM 107-2L 920/4

Toss Up – Bonus Attached

15. Q. What two organs deliver enzymes and products into the duodenum to assist in the digestive process?

A. Pancreas and liver

S. Kainer Plate 54 430/3

Bonus Question

16. Q. Name the breed that is identified with the following five names or identifications:
Peacock of the horse world
Prince of ponies
Breed of blacks and grays
Palouse horse
Aristocrat of the show ring

A. American Saddlebred, Hackney Pony, Percheron, Appaloosa, and Hackney Horse (horse not pony)

S. Evans 38, 61, 69, HIH 158-2, 170-1 200/4
2007 Eastern National 4-H Horse Bowl
Round One

Resume Open Questions

17.  Q.  What bit is being described? This bit uses four reins. It is a one piece bit that functions like both a snaffle and a curb combined into one mouthpiece. One set of reins is attached to the rings and work like a snaffle and one set attaches to the shanks to provide a leveraged action.

   A.  Pelham

   S.  HIH 1100-10, DET 207                      1000/3

18.  Q.  In the horse’s renal system, what structure connects the kidney to the bladder?

   A.  The ureter

   S.  Kainer 68                                 470/3

19.  Q.  A buck-kneed horse is sprung forward or over at the knee. This is considered a less serious fault than what type of knee conformation where the horse is back at the knee?

   A.  Calf-kneed

   S.  Evans 147                                  620/3

Toss Up – Bonus Attached

20.  Q.  Name two types of teeth in the male horse that never occur as deciduous teeth and are only found as permanent teeth.

   A.  Molars
       Wolf teeth
       Canine teeth

   S.  HIH 240-1                                  430/3
2007 Eastern National 4-H Horse Bowl
Round One

Bonus Question

21. Q. Name two of the three striding leg interferences in which the toe of the foreleg hits the hind leg on the same side, and describe where on the rear leg the striking is occurring.

A. Scalping – cornet
   Speedycutting – pastern or fetlock
   Shin hitting – cannon bone
   Hock-hitting – hock

S. Evans 179, 180 620/4

Resume Open Questions

22. Q. The molds Penicillium, Aspergillus and Fusarium are responsible for most mycotoxin production. They are found sporadically in harvested and unharvested feeds. What is the most significant environmental factor in determining if the molds will grow and produce mycotoxins?

A. Moisture

S. Lewis 347 770/4

23. Q. The frog is a wedge-shaped mass that occupies the area between what structures at the heel of the foot?

A. The bars (also accept commisures, lateral sulci or collateral groove)

S. Evans 695, DET 62, Kainer plate 24 480/3

24. Q. Muscles that work together to accomplish a movement are called synergists. What is the term for muscles that oppose each other and limit movement?

A. Antagonists

S. Evans 696 410/4
25. Q. You are trying to decide between straw and wood shavings for bedding for your ten horse boarding facility. Straw is cheaper, but why might you still think it would be more economical to use shavings?

A. Shavings are less labor intensive and may pay for their extra cost by savings in labor expense

S. HIH 330-1 920/3

Toss Up – Bonus Attached

26. Two part Q. Name and give the function of the large muscle located on either side of the face, sitting beneath the ear, and covering the mandible.

A. Masseter muscle; chewing – closes the jaws

S. Kainer plate 16, DET 176 410/4

Bonus Question

27. Q. Name four nutrients that a good quality legume hay would be higher in than a good quality grass hay.

A. Energy Calcium Vitamin B
   Protein Vitamin A
   (will accept Phosphorus – only marginally higher)

S. YLM 202-1L, HIH 750-3 700/3

Resume Open Questions

28. Q. What structure in the brain controls the release of hormones by the pituitary gland?

A. Hypothalamus

S. Evans 126 490/3
29. Q. During pregnancy what structure in the mare protects the fetus from contamination and infection by serving as an impermeable barrier between the vagina and the body of the uterus?
   A. The cervix
   S. Evans 321, HIH 910-3 510/3

30. Q. What is the name for the special, flowing movement in which the forelegs roll to the outside as the horse strides forward that is performed by the Peruvian Paso?
   A. Termino
   S. Evans 43 640/3

31. Q. What condition is being described? This condition usually occurs in the horse’s front legs and is found between the knee and the fetlock. It is more common in young horses in rigorous training. It starts as a soreness but can persist and forms a swelling on the front of the cannon bone.
   A. Bucked shins
   S. Evans 159-160 810/3

Last Question of the Round

32. Q. What do the following terms describe – pelican, gourd, appleton, dinner plate, and dally?
   A. Types of horns on saddles
   S. DET 14, 77, 81, 123, 207 1000/4
2007 Eastern National 4-H Horse Bowl
Round One

One-On-One

1. C1  Q. As a non-ruminant herbivore, the horse needs to forage or chew long stem roughage. As a rule of thumb what is the minimum amount of roughage as a percent of body weight your horse should receive daily?
   A. ¾ to 1% (accept anything in that range)
   S. HIH 710-4, Lewis 147 700/4

2. C2  Q. To what famous Thoroughbred, unbeaten in twenty four races in 1764, do 90% of all modern Thoroughbreds trace their ancestry?
   A. Eclipse
   S. DET pg. 88 200/4

3. C3  Q. When the sum of a number of genes are required to produce a trait, what type of gene action is this considered?
   A. Quantitative
   S. HIH 1020-3 550/4

4. C4  Q. Fescue poisoning affects pregnant mares in the late stages of gestation. What is the best and easiest way to rapidly alleviate the effects of fescue toxicosis?
   A. Removing mares from infected fescue pasture and access to infected hay
   S. Lewis 354 770/3
5. C1  Q.  In the horse’s eye, focused light rays which form the image on the retina are transmitted to the brain by what nerve?

A.  Optic nerve

S.  DET 167, Kainer 78  420/3

6. C2  Q.  The angle of the slope of the shoulder is essential to the overall balance of the horse. As the slope of the shoulder becomes straighter what effect does this have on the length of the back?

A.  The back gets longer – the top line becomes longer

S.  YLM A323-2L  600/4

7. C3  Q.  When a pacer hits the sole or shoe of a front foot with the diagonal rear foot, this interference is called what?

A.  Cross-firing

S.  Evans 179, DET 73  620/3

8. C4  Q.  What type of hernia only occurs in a male horse?

A.  Scrotal hernia (not inguinal hernia)

S.  Evans 168  880/3
2007 Eastern National 4-H Horse Bowl
Round One

9. C1 Q. As the owner of a horse boarding and training operation, what type of insurance do you need to carry to protect you from situations where you may be held responsible for bodily injury or property damage, particularly where negligence may be claimed?

A. Liability Insurance

S. HIH 1340–5 940/4

10. C2 Q. What is the proper term for the blood vessel rich, bone producing membrane that covers bone except at the articular surfaces?

A. Periosteum

S. Kainer plate 9, DET 209 410/3

11. C3 Q. What is the name of the glandular organ located near the stomach which serves as a reservoir for red blood cells and assists the body in combating infectious organisms?

A. Spleen

S. Lewis 404 440/4

12. C4 Q. What is the name of the area on the horse’s jaw where the curb chain should rest?

A. Curb groove

S. DET 75 1000/4

End One-On-One
Begin Open Questions

13. Q. Rain rot is a common term used to describe a condition where moisture and dirt allow a commonly found bacteria to cause an infectious situation, causing the hair coat to separate from the skin at its roots and slough off in sections? This is often confused with rain scald which is caused by an infection with what organism?

   A. Fungus

   S. DET 228 860/5

14. Q. A clinch block can be used to turn the head of the nail to start the clinch. If your horse objects to this procedure, what other tool could be used to turn the clinch?

   A. Clinchers or clinching tongs (gooseneck, alligator or saddle horse clinchers)

   S. HIH 530-3, Evans 745 900/4

Toss Up – Bonus Attached

15. Q. The common factor between these two unsoundnesses is that the type of tissue at each location that becomes infected is a bursa. What are the two unsoundnesses?

   A. Poll evil and fistulous withers

   S. Kainer plate 20, Evans 168 640/4

Bonus Question

16. Q. Name five conformational defects whose common name refers to another species of animal.

   A. Parrot mouthed  Pigeon-toed  Hound-gutted
   Monkey mouthed  Cow-hocked  Rat-tailed
   Ewe-neck  Coon-footed  Walleyed
   Goose-rumped  Pig-eyed  Wasp-Waisted
   Roach-back  Herring-gutted  Cow-eyed
   Calf-kneed  Mule ears

   S. HIH 620/3
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Round One

Resume Open Questions

17. Q. Name one of the two endocrine glands that are attached to the brain.
   A. Pituitary gland or pineal gland
   S. Kainer plate 77 420/3

18. Q. What does the term “blow a stirrup” refer to?
   A. To lose a stirrup iron
   S. DET 33 1000/4

19. Q. What is the proper name (genus) of the parasite causing this disease? Adult horses rarely have clinical problems from this parasite – it primarily affects nursing foals. The small thread like adult worms in the small intestine can cause diarrhea and unthriftiness.
   A. Strongyloides (Strongyloides westeri)
   S. Lewis 158 835/4

Toss Up – Bonus Attached

20. Two part Q. What term describes the 45-50 foot long rope that is used with a lash cinch to secure a pack load and what are three types of hitches with which it can be used to secure the load?
   A. Lash rope
   Single diamond, double-diamond, half-diamond, triple diamond, squaw, or Arizona
   S. HIH 1125-1 1020/4
2007 Eastern National 4-H Horse Bowl  
Round One

Bonus Question

21. Q. Cob – C O B or – cobby C O B B Y are terms used in the horse industry. Give 3 examples of how you might use these terms.

A. Cob-tailed – an English custom of docking the tail to a 6 inch length. Cob-tail class – one of two classes Hackney ponies are divided into for show. Cob as a type rather than breed description – short legged, max height 15.1 hands with the bone and substance of a heavyweight hunter. Cobbly – as a description of a close coupled and stoutly built horse. Cob – form of feed – “corn cob”. Welsh Cob – a division of Welsh pony and horse based on type.

S. Evans 63-64, DET 60, HIH 184-1       200/4

Resume Open Questions

22. Q. What hormone does the maturing follicle on the ovary release to stimulate the sexual behavior of the mares during heat?

A. Estrogens

S. HIH 910-6, YLM 326-3       510/3

23. Q. Which martingale combines the action of both the snaffle rein and draw reins?

A. German martingale

S. DET 120       1000/4

24. Q. What serious unsoundness is described as an enlargement that appears on the inside and front of the hind leg where the hock tapers into the cannon bone?

A. Bone Spavin or Jack Spavin

S. DET 35, HIH 230-4       620/3
2007 Eastern National 4-H Horse Bowl
Round One

25. Q. Identify one of the two different places in the horse’s skeletal structure where you would find an interosseus ligament.

A. Attachment of the radius to the ulna (present only in foals and is later ossified) or the cannon bones to the splint bones.

S. Kainer plate 14, Evans 158-9, DET 154 410/4

Toss Up – Bonus Attached
26. Two part Q. What is the proper term for the fluid that suspends the red blood cells in whole blood and what term is used for the fluid that remains once the red blood cells have clotted?

A. Plasma – fluid in whole blood
   Serum – in clotted blood

S. Lewis 401, 403 440/4

Bonus Question
27. Q. Identify the bone or joint where the following blemishes or unsoundness would occur – sidebone, osselets and high and low ringbone.

A. Sidebone – calcification of the lateral cartilages of the coffin bone
   Osselets is a thickening of the joint capsule and/or adjacent bone at the front of the fetlock.
   Low ringbone – bony growth of the second phalanx (short pastern) just above the coronary band – at the coffin joint
   High ringbone – bony growth of the first phalanx (long pastern) just above the pastern joint – at the pastern joint

S. Evans 160-1, Lewis 401, HIH 455-6 620/4

Resume Open Questions
28. Q. In what part of the vascular system does the majority of exchange of substances into and out of blood occur?

A. Capillaries

S. HIH 830-1 440/3
2007 Eastern National 4-H Horse Bowl
Round One

29. Q. In the eastern U. S. rotational grazing can double the amount of forage you can generate from the same size pasture. Each area should be grazed for 10 to 14 days and then allowed to rest for how long?

A. One month (accept four weeks or 30 days, also accept until grass grows to at least 3 inches)

S. Lewis 105-6 970/5

30. Q. Your horse has been kicked by another horse and has a contusion. The trauma is sufficient to break blood vessels resulting in an abnormal pocketing and collection of blood in body tissues. What is this formation called?

A. Hematoma (do not accept bruise – term synonymous with contusion and does not describe the situation in the question)

S. HIH 440-5, Lewis 392 840/3

31. Q. To what structure does the 12th cranial nerve – the hypoglossal nerve – provide motor control?

A. The tongue

S. Kainer plate 78 420/4

Last Question of the Round

32. Q. What is the last event to occur in the last stage of labor in the mare?

A. Expulsion of the placenta or afterbirth

S. Kainer plate 73, Lewis 246 510/3
One-On-One

1. C1  Q. Justin Morgan was the foundation sire for the Morgan breed. What reproductive term would be used to describe his ability to pass his type on to his offspring regardless of the type of mare he was bred to?
   A. Prepotent
   S. HIH 151-1  200/4

2. C2  Q. A racehorse that runs well on wet, sloppy, or heavy tracks is known by what term?
   A. Mudder
   S. DET 183  1040/4

3. C3  Q. What bony structure in the oral cavity separates the oral cavity from the nasal cavity?
   A. Palate
   S. Kainer plate 50  430/3

4. C4  Q. Veins from the stomach, spleen, intestines and pancreas all join to form the portal vein which carries blood to an important organ in the abdominal cavity where essential metabolic functions are performed. What organ does the portal vein run to?
   A. Liver
   S. Kainer plate 60  440/4
5. C1 Q. If a pair of alleles is identical what is that individual considered to be with respect to those genes?
   A. Homozygous
   S. YLM 335-1, HIH 1020-2 550/4

6. C2 Q. What is a horse doing when it is engaging in coprophagia?
   A. Eating feces
   S. Lewis 375, DET 68 930/3

7. C3 Q. What term is used to indicate that a horse may have a structural problem or deviation which has only a limited effect on the horse’s ability to perform?
   A. Serviceably sound
   S. HIH 230-1 600/4

8. C4 Q. Give one other term that can be used to describe the condition of Exercise Induced Pulmonary Hemorrhage (EIPH) which is the presence of blood in the respiratory tract of the horse.
   A. Bleeders (do not accept epistaxis – is a term for nose bleed)
   S. YLM 325-2, HIH 810-2 850/4
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Round One

9. C1 Q. Why is it important that you know where the transverse facial artery and facial artery run on your horses head?
   A. These are two important sites for taking your horses pulse
   S. Kainer plate 62 440/3

10. C2 Q. This is the largest and most common group of toxins affecting horses, occurring in both harvested and unharvested feeds.
    A. Mycotoxins
    S. Lewis 346 770/4

11. C3 Q. The term diaphysis refers to what part of a long bone?
    A. The shaft of the bone
    S. Kainer plate 9, DET 80 410/4

12. C4 Q. In response to GnRH release from the hypothalamus what structure releases FSH and LH?
    A. Pituitary gland
    S. HIH 910-6 510/3

End One-On-One
2007 Eastern National 4-H Horse Bowl
Round One

Begin Open Questions

13. Q. What breed of horse is known for its distinctive gait, in which the horse performs a brisk walk with the front legs and trots with the back legs and originated in the Ozark Mountains of Missouri and Arkansas?

   A. Missouri Foxtrotter (also accept Fox Trotting Horse – Evans)

   S. DET 181, Evans 41-42 200/4

14. Q. What is the horse racing term for a type of wagering where the person placing the bet must pick the win and place finishers in a race in exact order?

   A. Exacta

   S. DET 100 1040/4

Toss Up – Bonus Attached

15. Q. What two sets of bones serve as pulleys to change the direction of the deep digital flexor tendon?

   A. Proximal sesamoids and distal sesamoid (Navicular bone or shuttlebone)

   S. Kainer plate 12, DET 188 410/4

Bonus Question

16. Q. There are three types of Gastrophilus – horse bot flies. Give either their common names or scientific names and identify one area on the horse where they deposit their eggs.

   A. G. intestinalis – Common horse bot fly – forelegs, chests, neck, stomach, hind legs & flanks
      G. nasalis – Throat bot fly – under horse’s jaws and throat
      G. hemorrhoidalis – Nose bot fly – upper & lower lips

   S. YLM 300-3L 835/4
Resume Open Questions

17. Q. If a horse is afraid of something and is unable to run away from the source of fear, it is left with a choice of fighting or submission. What can you do to encourage submission to things that may happen repetitively such as the use of a twitch?

A. Make the event end with a pleasurable, positive, or non-fearful experience

S. Lewis 376 930/5

18. Q. The two color genes – lethal white and dominant lethal roan – cause early embryonic death in fetuses when found in what pairing of alleles?

A. Homozygous

S. Evans 511-3 550/4

19. Q. What is the name of the iron-containing protein found in erythrocytes that binds to oxygen?

A. Hemoglobin

S. HIH 830-1 440/3

Toss Up – Bonus Attached

20. Two Part Q. The “Plantation Gait” was a smooth ground covering gait that made the Tennessee Walking Horse popular in the south. What is the proper name for the gait and how many beats is it?

A. The running walk
4 beats

S. Evans 178 640/3
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Round One

Bonus Question

21. Q. Correctly identify the four teams of horses in an eight-horse hitch in order from the lead team back.
   A. Leaders, point (body) team, swing team, and wheelers
   S. DET 166, 215, 261, 292  1050/4

Resume Open Questions

22. Q. What is the proper term for filters found in the horse’s body that can remove bacteria, cancer cells and foreign material from circulation and are connected to the vascular system by the thoracic duct?
   A. Lymph nodes
   S. Kainer plate 64, Evans 112, DET 173  440/5

23. Q. The amount of energy used in muscle contraction is a function of how fast it is contracting. What is the energy unit used to drive this at the muscle fiber level?
   A. ATP (Adenosine triphosphate)
   S. HIH 840-2  410/5

24. Q. Identify this breed from the following description. This breed will have a mature weight of 1,400 to 1,800 pounds for females and 1,800 to 2,000 pounds for males. They average 15.1 to 16.3 hands at maturity. As a breed their numbers are small and they trace their foundation to a mare from Iowa. They hold the distinction of being the draft breed that was developed in the United States. They are all cream in color.
   A. American Cream
   S. HIH 163-1  200/5
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Round One

25. Q. What event triggers the end of the estrus or heat cycle usually within 24 hours?

A. Ovulation

S. Lewis 235, Evans 323, HIH 930-1 510/3

Toss Up – Bonus Attached

26. Q. Two part question. Hay baled at a moisture level of 17-20% is ideal. Give one reason why moisture content above and one reason why moisture content below this amount would potentially reduce the quality of baled hay.

A. Below this level the hay is dry and will lose leaves during baling and storage – this decreases nutritional value and palatability. Above this moisture level the potential for mold production increases (also increased heat is produced which decreases protein levels)

S. YLM 337-2L, Lewis 69 700/4

Bonus Question

27. Q. Name three ways the term “points” can be used in relation to horses and the horse industry?

A. Sharp edges on the cheek teeth
Coloring of the mane, tail and legs
Values for winning or placing at approved shows
On an English saddle the part of the pommel arch that extends below the stirrup bar
On a western saddle the lower part of the tapadera
Team in the back of the leaders in an eight horse hitch
Type of race – point-to-point
“Pointing” – perceptible extension of the stride with little flexion
Standing position when one of the front legs is extended ahead of the other (sore foot is put in front to take the weight off of it)

S. DET 215, Kainer plate 48, HIH 1100/2 1070/4

Resume Open Questions

28. Q. What conformation defect is predisposed to a carpal chip, especially in young racehorses?

A. Calf knees

S. Kainer plate 11 620/4
29. Q. What specific type of insurance would you need to purchase in order to insure your horse against death from sickness, injuries, disease or old age?

A. Full mortality or all risks mortality insurance (do not accept only mortality insurance – does not cover the specified items. Specified insurance would also not be correct as it covers only one specific event)

S. HIH 1340-1 940/5

30. Q. How does the spleen help the race horse increase its level of arterial oxygen and maintain levels of physical exertion?

A. The spleen contracts releasing additional red blood cells to carry oxygen

S. HIH 830-2, Evans 114 440/4

31. Q. Your horse is experiencing recurrent mild colic. Your veterinarian is auscultating the right side of your horse’s abdomen for borborygmus. What specific part of the digestive tract is he listening to?

A. Cecum

S. HIH 710-2, DET 35 430/5

Last Question of the Round

32. Q. What is the purpose of a half breed on a Decker saddle?

A. Provides extra padding, holds the pack away from the horse’s side

S. HIH 1125-1 1020/3
2007 Eastern National 4-H Horse Bowl
Round One

One-On-One

1. C1 Q. What vein running in the neck of the horse and returning blood to the cranial vena cava is commonly used to draw blood samples from the horse?
   A. Jugular vein
   S. Kainer plate 59, 61 440/4

2. C2 Q. If the mare is having difficulty with delivery of the foal – dystocia – what is the one thing you can do to slow down the parturition process while waiting for the veterinarian to arrive?
   A. Walk the mare (also accept tranquilize)
   S. HIH 940-4 510/4

3. C3 Q. The ilium and ischium are two of the bones that make up what structure of the horse?
   A. Pelvis
   S. Kainer plate 28, DET 156 410/4

4. C4 Q. As forages mature, and the percentage of lignin and structural carbohydrates increases, what happens to the digestibility of the forage?
   A. Digestibility decreases
   S. YLM 337-1L, Lewis 68, 700/4
5. C1  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
   S. DET 14, 237 1050/4

6. C2  Q. What organ, that produces lymphocytes and is located in the cranial mediastinum of the thorax is at its largest in the foal at six to eight weeks and decreases in size with age, becoming difficult to find in older horses?
   A. Thymus
   S. Kainer plate 63 440/5

7. C3  Q. Botulism is a relatively uncommon, but very acute and highly fatal feed related toxicity in horses, particularly foals. What is the term used to describe a foal with this problem?
   A. Shaker foal
   S. Lewis 347 770/4

8. C4  Q. What function does the sinoatrial node in the wall of the right atrium perform that is essential to the heart?
   A. It is the pacemaker for the heart
   S. Kainer plate 58 440/5
9. C1 Q. Which breed of horse originated in Mexico as a result of crossing Andalusian stallions with Quarter Horse mares?

   A. Azteca (not Galiceno – pony)

   S. DET 19  

10. C2 Q. What is the proper term for the layers of loose and dense fibrous connective tissue that are found superficially under the skin and deep covering the muscles?

   A. Fascia

   S. Kainer plate 15  

11. C3 Q. What can be inserted into the horse through the ventral meatus?

   A. Nasogastric tube or endoscope

   S. Kainer plate 65  

12. C4 Q. Even in winter, access to water is absolutely essential for horses. The horse will willingly consume adequate quantity of water in the winter if the water is kept above what minimum temperature?

   A. 45 degrees Fahrenheit (accept anything in range 40 to 50 degrees F or 7 to 9 degrees C)

   S. YLM 104-1L  

End One-On-One
2007 Eastern National 4-H Horse Bowl
Round One

Begin Open Questions

13. Q. The stay apparatus is a system of muscles, ligaments and tendons that’s purpose is commonly thought to lock the legs to allow a horse to rest while standing. Name one of the two other functions this apparatus performs.

   A. Helps reduce concussion or prevent overextension

   S. DET 254, Evans 708, Kainer 21, 36 410/5

14. Q. Once the follicle has ruptured and released the ova the luteal phase begins. The corpus luteum begins to form and is responsible for the release of what hormone?

   A. Progesterone

   S. HIH 910-6. YLM 326-3L 510/3

Toss Up – Bonus Attached

15. Q. Toss Up Question - What two features made the Percheron a popular draft breed?

   A. The lack of feathers on their legs and their speed at the walk

   S. Evans 69 200/5

Bonus Question

16. Q. Name four advantages of feeding oats to your horse.

   A. Difficult to over feed – less likely to cause founder
      Most palatable of grains
      Soft kernel means processing is not necessary
      Stores better than other grains
      Less likely to have molds/mycotoxins
      Not considered a “hot” feed – horse is less likely to become too spirited

   S. Lewis 73 700/4
2007 Eastern National 4-H Horse Bowl
Round One

Resume Open Questions

17. Q. Name one of the structures the hyoid bones support?
   A. The larynx, base of the tongue, guttural pouches, and pharynx
   S. Kainer plate 42, DET 146 410/4

18. Q. What hormone produced by the pituitary gland increases during the second stage of parturition and works to increase uterine contractions and encourage milk let-down?
   A. Oxytocin
   S. Evans 340, Lewis 398, DET 200 510/4

19. Q. Why is a five diamond V-mesh wire considered the safest wire fencing to be used for all horses?
   A. The close weave (small openings) keeps even foals from catching their foot in it.
   S. HIH 350-3 920/3

Toss Up – Bonus Attached

20. Two part Q. What does “TDS” stand for? What does TDS indicate about water quality?
   A. Total Dissolved Solids. High TDS indicate water that may be contaminated or unfit for consumption or have a high salinity.
   S. Lewis 7 700/5
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Bonus Question

21. Q. When hitching horses one in front of the other, what are the correct terms for a two, three, and four horse hitch?
   A. Two-tandem
      Three-random
      Four-quadrem
   S. DET 225, 229, 263 1050/5

Resume Open Questions

22. Q. What is the name of coat markings or areas of the skin where there is no pigment?
   A. Flesh marks
   S. DET 110 310/4

23. Q. The Sertoli cells in the stallion’s testes stimulate spermatogenesis in the stallion. What hormone from the pituitary gland controls the Sertoli cells?
   A. FSH (Follicle Stimulating Hormone)
   S. YLM 327-1 520/5

24. Q. A coon-footed horse has too much slope at what joint?
   A. Pastern
   S. YLM 323-2L 600/3
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25. Q. Equine Herpes Virus causes the respiratory disease in horses. One strain of the virus, EHV-1 can also cause what other problem?
   
   A. Abortion in pregnant mares (also accept either birth of weak foals or a paralytic neurological disease)
   
   S. HIH 445-6 880/3

Toss Up – Bonus Attached

26. Q. The autonomic nervous system regulates many of the internal operations of the body and unconscious responses to external stimuli. What are the two divisions the autonomic nervous system is divided into?
   
   A. Sympathetic and parasympathetic
   
   S. DET 18, Kainer 80 420/5

Bonus Question

27. Q. Name four things whose length is determined by shoulder angle.
   
   A. Length of neck  Length of Stride
   Length of back  Depth of hearth girth
   (do not accept angle of pastern – is not a change in length)
   
   S. YLM 223-2L 620/4

Resume Open Questions

28. Q. Which part of the horse’s brain controls the coordination of movement?
   
   A. Cerebellum
   
   S. DET 53 420/4
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29. Q. What type of protective boots would reining or roping horses wear to protect the rear portion of the fetlocks from injury or abrasion during sliding stops?
   A. Skid boots
   S. DET 246 1000/4

30. Q. Why is the hoof wall harder at the toe than at the quarters?
   A. Because the toe is further from the coronary band and therefore more keratinized
   S. HIH 505-4 480/3

31. Q. The seminiferous tubule is the functional unit of what organ in the horse?
   A. Testicle
   S. HIH 357 520/3

Last Question of the Round

32. Q. In measuring respiratory capabilities of the horse, tidal volume and respiratory rate are used to determine what respiratory parameter?
   A. Minute volume (total amount of air inspired or expired per minute)
   S. HIH 810-1 450/3
1. Q. The costal cartilages of the first eight ribs articulate with what bony structure?
   
   A. The sternum
   
   S. Kainer plate 8 410/3

2. Q. Which type of harness racing is most frequently seen in the United States today?
   
   A. Pacing
   
   S. Evans 29 200/2

3. Q. What term would be used to describe a horse that is cantering on one lead in front and a different lead in the rear?
   
   A. Disunited (also accept cross firing or cross canter)
   
   S. DET 82 640/3

4. Q. What hormone released by the uterus if the mare is not pregnant is responsible for the regression of the corpus luteum and the return of the mare cycling?
   
   A. Prostaglandin (prostaglandin F2 alpha, PGF2 alpha)
   
   S. HIH 910-6. Kainer plate 71 510/4

5. Q. What is the name of the small ring snaffle used on a full, or Weymouth bridle?
   
   A. Bradoon (Bridoon also accepted spelling)
   
   S. HIH 1100-10, DET 39 1000/3