

2013 District Horse Bowl Contest Mixed Division Round One

- 1) Q: The conformational defect known as "pigeon-toed" causes the horse to track with what deviation?**
A: Paddling
Source: CAHA (plate 39)

- 2) Q: What is the single most important consideration when selecting a horse?**
A: Purpose for which it will be used
Source: Evans2 (204)

- 3) Q: What is the primary method of parasite transmission?**
A: Through the manure (ingestion)
Source: HIH (430-4)

- 4) Q: What are the steps one would perform to correctly pick up the horse's left front foot?**
A: Run your hand down the front leg starting at the shoulder; once the cannon bone is reached lean into the horse with your shoulder, ask the horse to pick up that foot, and cradle the front of the hoof in your hand.
Source: AYHC (I206-2L)

- 5) Q: Describe a coronet leg marking.**
A: A narrow white strip covering the coronet band
Source: Evans2 (83)

- 6) Q: What breed of horse is registered by the Jockey Club?**
A: Thoroughbred
Source: Evans2 (21)

- 7) Q: What is a maiden mare?**
A: A mare that has never been bred
Source: HIH (940-1)

- 8) **Q: What is the base coat color of a red roan?**
A: Bay
Source: EqSci (47)
- 9) **Q: A horse with a heavy, coarse, full tail is referred to as what?**
A: A broom tail
Source: Evans2 (83)
- 10) **Q: What do you call a foal that has not yet been weaned?**
A: A suckling
Source: IDET (258)
- 11) **Q: Since the gray coat color is controlled by a dominant gene, each gray horse must have at least one (1) parent of what coat color?**
A: Gray
Source: HIH (1040-3)
- 12) **Q: What term describes a horse that stands closer at the ground than the base of the chest?**
A: Base-narrow
Source: HIH (230-2)
- 13) **Q: A horse that stands 14.2 hands or less at the withers is considered a what?**
A: A pony
Source: EqSci (20)
- 14) **Q: What is the term used to indicate a healthy, glossy hair coat?**
A: Bloom
Source: Lewis2 (382)
- 15) **Q: What is a foal?**
A: A young horse less than six (6) months of age
Source: HIH (110-5)

16) **Q: In what part of the cell is the genetic material contained?**

A: Nucleus

Source: HIH (1020-1)

17) **Q: What term applies to a horse that belongs to a specific breed and has "papers" to document its ancestry?**

A: Registered (or purebred)

Source: AYHC (110-5)

TOSS-UP WITH BONUS ATTACHED

18) **Q: What is the most common type of feed that provides fiber to the horse's diet?**

A: Forage

Source: Lewis2 (112)

19) **BONUS**

Q: A healthy horse's diet should contain what five (5) basic nutrients?

A: Water, protein, vitamins, minerals, energy (carbohydrates and fats)

Source: EqSci (114-115)

20) **Q: What are the two (2) distinct coat color patterns of the paint horse?**

A: Overo and tobiano (sabino also allowed)

Source: Evans2 (46)

21) **Q: What is another name for the "plantation gait" of the Tennessee Walking Horse?**

A: Running walk

Source: Evans2 (178)

TOSS-UP WITH BONUS ATTACHED

22) **Q: What is the term given to a castrated male horse?**

A: Gelding

Source: Evans2 (384)

23) **BONUS**

Q: Name three (3) colors of horse that may have dorsal stripes.

A: Dun, red dun, grulla, buckskin

Source: HIH (140-1)

24) **Q: Animals that eat only plant material are called what?**

A: Herbivores

Source: HIH (710)

25) **Q: What coat color describes a horse that has a golden body, a black mane and tail and a dorsal stripe?**

A: Dun

Source: EqSci (42)

26) **Q: What color of horse may have a flaxin mane and tail?**

A: Chestnut or palomino

Source: Evans2 (476 & 493)

TOSS-UP WITH BONUS ATTACHED

27) **Q: Why is a horse or mule with little or no withers undesirable as a pack animal?**

A: Because their conformation allows the saddle to turn and rub, creating painful sores.

Source: AYHC (B118-1L)

28) **BONUS**

Q: Name the five (5) regions of the spinal column.

A: Cervical (neck), thoracic (back), lumbar (loin), sacral (croup), coccygeal (tail or caudal)

Source: Evans2 (96)

29) **Q: How many inches are in a hand?**

A: Four (4) inches

Source: Evans2 (81)

- 30) Q: What is the average pulse rate of a mature horse at rest?**
A: Thirty-Five (35) beats per minute (range is 35-45 bpm)
Source: Evans2 (111)
- 31) Q: What does the term "phenotype" mean?**
A: The outward appearance or physical characteristics of an animal
Source: Evans2 (458)
- 32) Q: Describe a horse who is camped under.**
A: A horse whose forelimb is too far under its body
Source: AYHC (230-5)

END OF ROUND ONE

2013 District Horse Bowl Contest Mixed Division Round Two

- 1) Q: What is the most common cause of colic?**
A: Parasite infection
Source: Evans2 (606)

- 2) Q: When judging a horse's conformational balance, what does the term "walking downhill" describe?**
A: A horse that stands lower at the withers and higher at the hip
Source: Evans2 (135)

- 3) Q: When traveling out of state with your horse, what are the two (2) mandatory documents you must carry with your horse at all times?**
A: Proof of a negative Coggins test and a health certificate no more than thirty (30) days old
Source: HIH (21-2)

- 4) Q: What is the name of the second cervical vertebrae?**
A: Axis vertebrae
Source: Evans2 (96)

- 5) Q: Pawprints, bear paws and ink spots are seen on what coat color?**
A: Paints or pintos
Source: EqSci (39)

- 6) Q: How many pairs of chromosomes does the horse have?**
A: 32 pairs
Source: HIH (1060-7)

- 7) Q: Fill in the blank. The grulla is a subgroup of _____-colored horses.**
A: Dun
Source: EqSci (43)

- 8) **Q: Where on the horse are tactile hairs located?**
A: Around the eyelids, nostrils and lips
Source: CAHA2 (4)
- 9) **Q: Describe a "half-stocking" leg marking.**
A: White hair extends from the coronet band to the middle of the cannon bone
Source: Evans2 (83)
- 10) **Q: What color breed carries the gene for Lethal White Foal Syndrome?**
A: The Paint or Pinto horse (those of the overo color pattern)
Source: EqSci (98)
- 11) **Q: What farrier's tool is used to pare away dead sole from the hoof?**
A: Hoof knife
Source: HIH (530-1)
- 12) **Q: Parasites that attack the skin and body openings of the host animal are called what?**
A: External parasites or ectoparasites
Source: Evans2 (617)
- 13) **Q: What do the initials "AQHA" stand for?**
A: American Quarter Horse Association
Source: Evans2 (26)
- 14) **Q: What are three (3) characteristics of high quality hay?**
A: Green in color, no dust or mold, have fine stems and lots of leaves, no weeds, no blister beetles, must not have been rained on
Source: HIH (750-1)
- 15) **Q: How soon after birth is a newborn foal ready to nurse?**
A: Within a few minutes after birth
Source: Evans2 (427)

16) **Q: What type of bit applies direct pressure on the corners of the horse's mouth and tongue, but not on the poll?**

A: Snaffle bit

Source: HIH (1100-8)

17) **Q: The term "headstall" includes all parts of the bridle with the exception of what three (3) things?**

A: Noseband, bit and reins

Source: IDET (136)

TOSS-UP WITH BONUS ATTACHED

18) **Q: What are the two (2) definitions of a "paddock?"**

A: A small, fenced area used for exercise or the area where racehorses are saddled and viewed before a race

Source: Lewis2 (398)

19) **BONUS**

Q: Name three (3) parts of a horseshoe.

A: Heel, web, quarter, nail holes, toe, branch and fullering

Source: Evans2 (730)

20) **Q: What are genes made up of?**

A: DNA that contains different amino acids and proteins

Source: EqSci (87)

21) **Q: What parasite deposits small, yellow eggs on the hairs of horses' legs, face and flanks?**

A: Bot flies

Source: Evans2 (587)

TOSS-UP WITH BONUS ATTACHED

22) **Q: What is the offspring of a jack and mare?**

A: A mule

Source: Evans2 (76)

23) **BONUS**

Q: List three (3) reasons for castrating a male horse.

A: Eliminates need for separate stallion turnout paddock, improves attitude, protects gene pool, minimizes risk of injury

Source: Evans2 (385)

24) **Q: Name two (2) functions of a stall guard.**

A: Allows for more air circulation into a stall, and allows the horse to hang its head over or out of a stall with a solid door (socialization)

Source: HIH (1100-12)

25) **Q: The "Flehmen behavior" is pronounced in stallions. What purpose does it serve?**

A: To investigate the urine and vaginal secretions of a mare that is in heat or as a behavioral response

Source: CAHA (65)

26) **Q: The Connemara is famed for what ability?**

A: Jumping

Source: Evans2 (65)

TOSS-UP WITH BONUS ATTACHED

27) **Q: What are vertical cracks in the hoof wall called?**

A: Sand cracks

Source: HIH (540-2)

28) **BONUS**

Q: What five (5) factors influence hoof growth?

A: Age, temperature, irritation or injury, increased exercise or wear, feed intake

Source: AYHC (505-6)

29) **Q: What type of saddle is most commonly used by huntseat equitation riders?**

A: Forward saddle with knee rolls (huntseat saddle or close contact saddle)

Source: Evans2 (145)

- 30) Q: What is a common name for nematodes?**
A: Roundworms
Source: Evans2 (618)
- 31) Q: What part of the female reproductive system houses the foal during gestation?**
A: Uterus
Source: Evans2 (340)
- 32) Q: The speed of the horse is determined by what two (2) factors?**
A: Stride frequency and length
Source: Evans2 (169)

END OF ROUND TWO

2013 District Horse Bowl Contest Mixed Division Round Three

- 1) Q: Fill in the blank. The process of passing genetic material to the next generation is known as _____.**
A: Inheritance
Source: EqSci (89)

- 2) Q: From proximal to distal, name the three (3) joints common to all four (4) legs.**
A: Fetlock, pastern and coffin
Source: Evans2 (98)

- 3) Q: Who reintroduced the horse to the North American continent?**
A: The Spanish Conquistadors
Source: Evans2 (7)

- 4) Q: What term describes the six (6) foot length of rope used in calf roping to tie the calf's legs?**
A: Piggin' String
Source: Evans2 (438)

- 5) Q: What is the flexible, distensible muscular organ used for urine storage?**
A: Bladder
Source: Evans2 (119)

- 6) Q: What is the difference between an oil and a fat?**
A: An oil has a melting temperature lower than room temperature and fats have a melting temperature above room temperature
Source: Lewis2 (18)

- 7) Q: What are the two (2) major functions of the equine digestive tract?**
A: Digestion and absorption
Source: EqSci (108)

- 8) **Q: What breed of horse is most susceptible to accidents and attacks by packs of dogs or other animals?**
A: Miniature Horses
Source: Evans2 (67)
- 9) **Q: Fill in the blank. To determine height, a horse is always measured at the top of the _____.**
A: Withers
Source: Evans2 (139)
- 10) **Q: What are the minimum recommended dimensions for a horse stall?**
A: 10 foot by 10 foot
Source: HIH (204-2)
- 11) **Q: Muscles are attached to bones by what type of tissue?**
A: Tendons
Source: Evans2 (90)
- 12) **Q: A horse produces and expels large quantities of what substance? This substance is primarily composed of carbon dioxide and methane.**
A: Gas
Source: CAHA (55)
- 13) **Q: When determining what species of grass to plant in a pasture, what are the two (2) most important factors that should be considered?**
A: Local soil and climate conditions
Source: Evans2 (275)
- 14) **Q: What is a "brumby?"**
A: Australian wild horses
Source: IDET (41)
- 15) **Q: What is a common conformation fault of the rear limbs that puts strain on the plantar ligament, often leading to formation of a cub?**
A: Sickle-hocked (or cow-hocked)
Source: Evans2 (165)

16) **Q: What is the "angle of bite?"**
A: The outer angle at which the upper and lower incisors meet
Source: IDET (11)

17) **Q: How large, in feet, is the blind spot directly in front of the horse?**
A: 4-6 feet
Source: EqSci (59)

TOSS-UP WITH BONUS ATTACHED

18) **Q: Horses with heat stroke must immediately receive first aid treatment that focuses on reducing the horse's body temperature quickly. Give two (2) ways this can be done.**
A: Hosing the horse down and scraping repeatedly or applying ice on the horse's topline
Source: HIH (410-1 & 2)

19) **BONUS**

Q: Name four (4) causes of hyperthermia.
A: Hot weather, over work, obesity, prolonged exposure to direct sun light, high humidity, transport, and poor stable ventilation
Source: AYHC (I204-2L)

20) **Q: In reference to showing, what is an "aged" horse?**
A: A horse that is six (6) years of age or older
Source: IDET (5)

21) **Q: What are the two (2) most dangerous vices to man?**
A: Biting and nipping
Source: Evans2 (182)

TOSS-UP WITH BONUS ATTACHED

22) **Q: What coat color is a single dilution of black?**
A: Grulla
Source: Evans2 (81)

23) **BONUS**

Q: Name four (4) of the six (6) black coat color modifications.

A: Bay, seal brown, buckskin, dun, grulla and perlino

Source: Evans2 (473)

24) **Q: What anatomical directional term refers to a structure located at the end of a limb?**

A: Proximal

Source: CAHA (2)

25) **Q: What term is used to describe a mare or stallion that is infertile?**

A: Sterile

Source: IDET (255)

26) **Q: The Thoroughbred breed originates from what county?**

A: England

Source: Evans2 (21)

TOSS-UP WITH BONUS ATTACHED

27) **Q: What small, insect-like parasite attacks both plants and animals? It causes severe itching by burrowing into the skin, or biting and sucking blood.**

A: Mites

Source: IDET (181)

28) **BONUS**

Q: Name five (5) types of internal parasites. Please use common names.

A: Stomachworms, tapeworms, threadworms, large and small strongyles, bots, lungworms, pinworms, ascarids (bloodworms)

Source: EqSci (189-190)

29) **Q: An infection of the foot that causes necrosis of the frog and a foul, blackish discharge is called what?**

A: Thrush

Source: Evans2 (167)

- 30) Q: What artery carries blood from the heart to the lungs?**
A: Pulmonary artery
Source: Evans2 (194)
- 31) Q: It is said that one (1) year of a dog's life is approximately equal to seven (7) human years. How many "human years" are equivalent to one (1) horse year?**
A: Three
Source: HIH (450-1)
- 32) Q: Why would you carry Vick's Vapor Rub in your horse trailer?**
A: To rub in the nostrils of two (2) unfamiliar horses to prevent them from smelling each other and fighting
Source: Evans2 (816)

END OF ROUND THREE

2013 District Horse Bowl Contest Mixed Division Round Four

- 1) Q: What is the average pulse rate of a foal at rest?**
A: 80 to 90 beats per minute
Source: EqSci (155)
- 2) Q: What nutrients are often referred to as "the building blocks of the body?"**
A: Amino Acids
Source: Evans2 (219)
- 3) Q: Samples of what two (2) substances can be submitted for DNA testing?**
A: Blood or hair
Source: EqSci (103)
- 4) Q: What five (5) gaits are called in an American Saddlebred 5-gaited pleasure class?**
A: Flat walk, trot, slow gait, canter, rack
Source: Evans2 (40)
- 5) Q: What term describes a ring-like band of muscle fibers that constrict to close a passageway?**
A: Sphincter
Source: IDET (251)
- 6) Q: Approximately 65 to 75% of a horse's total body weight is made up of what basic nutrient?**
A: Water
Source: EqSci (115)
- 7) Q: What is the most common infectious respiratory disease of the horse?**
A: Influenza (rhinopneumonitis acceptable as well)
Source: AYHCLM (101-103)

- 8) **Q: What term describes the rhythmic opening and closing of the labia? This behavior is typically shown by mares in heat.**
A: Winking
Source: Lewis2 (408)
- 9) **Q: What is a common name for hyperthermia?**
A: Heatstroke, sunstroke, heat exhaustion or heat cramps
Source: AYHC (410-1)
- 10) **Q: What is scours?**
A: Diarrhea caused by stress, improper nutrition, etc. Scours typically refers to diarrhea in foals
Source: IDET (240)
- 11) **Q: What are two (2) signs of a horse with a diet deficient in protein?**
A: Weight loss, reduced performance ability, slowed hair growth, shedding, a coarse, unkempt appearance, slow hoof growth, hoof splitting, hoof cracking
Source: Lewis2 (14)
- 12) **Q: What type of animals are included in the order Perissodactyla?**
A: Hoofed, odd-toed non-ruminants
Source: Evans2 (13)
- 13) **Q: What is the purpose of a hardy?**
A: A farrier tool used to cut hot metals, such as the heels of a shoe
Source: Evans2 (727)
- 14) **Q: What do the initials, "GnRH" stand for?**
A: Gonadotropin releasing hormone
Source: Evans2 (337)
- 15) **Q: Borreliosis is commonly referred as what?**
A: Lyme's Disease
Source: HIH (655-1)

16) **Q: Name one (1) function of the body, other than bone formation, that requires calcium.**
A: Normal muscular activity, blood clotting, blood pressure regulation, brain & nerve function
Source: Evans2 (221)

17) **Q: What term describes a horse trained to mount from the off side?**
A: Indian Broke
Source: IDET (151)

TOSS-UP WITH BONUS ATTACHED

18) **Q: The length of a horse's stride is influenced greatly by the slope of its shoulder. A very steep shoulder angle results in what type of stride length?**
A: Short stride
Source: HIH (220-6)

19) **BONUS**

Q: Name three (3) conformation faults that would predispose a horse to ringbone.
A: Base wide, base narrow, toe-in (pigeon-toed), toe-out (splay-footed)
Source: HIH (220-6)

20) **Q: What is the main function of bone marrow?**
A: Production of red and some white blood cells
Source: IDET (34)

21) **Q: How much does a horse's hoof grow, in inches, per month?**
A: 1/4 - 1/2" per month
Source: Evans2 (720)

TOSS-UP WITH BONUS ATTACHED

22) **Q: For approximately how many years have humans utilized the horse for work?**
A: Approximately 5,000 years
Source: EqSci (13)

23) **BONUS**

Q: Throughout history, what were the five (5) major uses of the horse?

A: Food, transportation, work, war, recreation (competition)

Source: EqSci (1)

24) **Q: What term describes a muscular depression of unknown origin? These marks are often seen on the neck, but may occur on the shoulder or quarters.**

A: Prophet's thumb or mark

Source: IDET (221)

25) **Q: What are the two (2) classes of vitamins?**

A: Fat and water soluble

Source: EqSci (122)

26) **Q: What is the major site of bacterial infection in the newborn foal?**

A: Navel stump

Source: AYHC (950-1)

TOSS-UP WITH BONUS ATTACHED

27) **Q: What are four (4) uses of a saddle blanket?**

A: To protect the horse's back, absorb sweat and moisture, protect the saddle, and help the saddle fit better

Source: HIH (1100-1)

28) **BONUS**

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 three (3) different metals. Name the metals found in German Silver.

A: Copper, nickel, and stainless steel

Source: HIH (1100-10)

29) **Q: What mineral is found in large quantities in hemoglobin and myoglobin?**

A: Iron

Source: Lewis2 (38)

30) Q: Name three (3) light breeds of horse that originated in Germany.

A: Trakehner, Hanoverian, Holsteiner

Source: Evans2 (74)

31) Q: What is another term for the oviducts?

A: Fallopian tubes

Source: AYHC (I226-2L)

32) Q: What is the major site of nutrient absorption?

A: Small intestine

Source: HIH (710-1)

END OF ROUND FOUR

**2013 District Horse Bowl Contest
Mixed Division Round Five**

- 1) **Q: Mycotoxins are toxic substances produced by what?**
A: Molds or fungi
Source: Lewis2 (346)

- 2) **Q: What two (2) minerals are required for the regulation of all body fluids?**
A: Sodium and chloride
Source: Lewis2 (25)

- 3) **Q: What is drenching?**
A: Giving liquid medication to a horse by pouring it down its throat
Source: IDET (84)

- 4) **Q: What type of base of support does the horse have at the walk?**
A: A triangular base of support
Source: EqSci (70)

- 5) **Q: What is hypoxia?**
A: A lack of blood oxygen
Source: AYHC (940-2)

- 6) **Q: What is another term for the deciduous teeth?**
A: Baby or milk teeth
Source: EqSci (216)

- 7) **Q: What are the tubes called that carry urine from the kidneys to the bladder?**
A: Ureters
Source: Evans2 (119)

- 8) **Q: Why is it necessary for the horse to have a diet adequate in fats and oils?**
A: For the absorption of the fat soluble vitamins A,D,E,K
Source: Lewis2 (18)

- 9) **Q: What is a chronic purulent inflammation of the lateral cartilage of the hoof, characterized by draining tracts at or just above the coronary band, that periodically heal and reopen?**
A: Quittor
Source: Lewis2 (401)
- 10) **Q: What is anaerobic exercise?**
A: High intensity exercise where the heart rate exceeds 150 bpm. Examples include short sprints and long fast gallops
Source: HIH (895-1)
- 11) **Q: What part of the mare's reproductive tract acts as a physical barrier between the vagina and the uterus?**
A: Cervix
Source: HIH (910-1)
- 12) **Q: What was the horse's greatest contribution to human history?**
A: Use as a war machine
Source: Evans2 (6)
- 13) **Q: What is myelitis?**
A: Inflammation of the spinal cord
Source: IDET (184)
- 14) **Q: What are the two (2) different uses of the term "haw" when referring to the horse?**
A: The third eyelid, and a teamster's term for signaling a term to the left
Source: IDET (130)
- 15) **Q: At what age does a mare's reproductive ability decrease?**
A: After sixteen (16) years of age
Source: HIH (940-1)
- 16) **Q: What two (2) bones make up the gaskin?**
A: Tibia and fibula
Source: Evans2 (687)

- 17) **Q: What is the shape of the horse's incisors at age twenty (20)?**
A: Triangular
Source: EqSci (218)

TOSS-UP WITH BONUS ATTACHED

- 18) **Q: What is the average weight of a draft horse?**
A: 1,600-2,200 pounds
Source: Evans2 (69)

- 19) **BONUS**

Q: Name five (5) draft horse breeds.
A: Belgian, Shire, Percheron, Clydesdale, Suffolk
Source: EqSci (47)

- 20) **Q: How long after ovulation is an egg viable?**
A: 12-24 hours
Source: Evans2 (396)

- 21) **Q: What type of palates are found in the mouth?**
A: Hard and soft
Source: Evans2 (106-107)

TOSS-UP WITH BONUS ATTACHED

- 22) **Q: Rhabdomyolysis is mostly seen in the draft breeds. What is another term for rhabdomyolysis?**
A: Tying-up, monday morning sickness, or azoturia
Source: EqSci (100)

- 23) **BONUS**

Q: What do the initials "TPR" stand for and what are the normal TPR ranges?
A: Respiration rate- 8-16 breaths per minute, pulse rate- 32-44 beats per minute, and temperature- 99-100.5°F
Source: HIH (410-1)

24) **Q: The cauda equina is the collection of spinal nerve roots that extend from the end of the spinal cord within the vertebral canal. What does the term "cauda equina" mean?**

A: Latin for "horse's tail"

Source: CAHA (plate 79)

25) **Q: What type of Equine Encephalomyelitis has the lowest mortality rate?**

A: Western

Source: AYHC (625-3)

26) **Q: What is the term used to describe an unbranded stray horse?**

A: Maverick

Source: IDET (176)

TOSS-UP WITH BONUS ATTACHED

27) **Q: Perlino is a double dilution of what coat color?**

A: Bay

Source: Evans2 (482)

28) **BONUS**

Q: Name three (3) colors that are eligible for registration in the Buckskin Registry.

A: Buckskin, dun, grulla or red dun

Source: Evans2 (51)

29) **Q: At what age are male horses usually castrated?**

A: Between birth and two (2) years of age

Source: Evans2 (384)

30) **Q: How many bones are in the carpus?**

A: Seven (7) or eight (8)

Source: Evans2 (684)

31) Q: What is a sex-linked genetic disorder?
A: The genetic disorder is carried on a sex chromosome
Source: EqSci (99)

32) Q: How much urine does an average horse excrete per day, in quarts?
A: Approximately four (4) to seven (7) quarts
Source: HIH (425-2)

END OF ROUND FIVE

2013 District Horse Bowl Contest Mixed Division Round Six

- 1) Q: What are the two (2) general classifications of abortions?**
A: Infectious and non-infectious
Source: Evans2 (425)
- 2) Q: How many players are on a polo team?**
A: Four (4)
Source: Evans2 (163)
- 3) Q: Describe a tostado colored horse.**
A: Red coat color with dark red points
Source: EqSci (41)
- 4) Q: When muscle fibers are relaxed, what do they do?**
A: Lengthen (they shorten when the muscle contracts)
Source: Evans2 (99)
- 5) Q: What does the term "integumentary" refer to?**
A: The skin and associated structures
Source: Evans2 (181)
- 6) Q: Increased risk of laminitis has been linked to what component of the horse's diet?**
A: Increased sugar or carbohydrate levels (high non-structural carbohydrates)
Source: EqSci (67)
- 7) Q: Under normal circumstances, approximately how long is the second stage of parturition?**
A: 15-30 minutes (ranges from 10 minutes to 1 hour)
Source: AYHC (940-4)

- 8) **Q: Prior to ovulation, from where are the estrogenic hormones secreted?**
A: From the follicles
Source: Evans2 (201)
- 9) **Q: Describe the difference between a sign and a symptom of disease and give an example of each.**
A: A sign is an objective, measurable evidence of a health issue (ex. temperature, pulse, respiration). A symptom is subjective evidence of a health issue as perceived by an observer (ex. lack of appetite, lessened activity level, pacing in circles)
Source: EqSci (166)
- 10) **Q: What is the buccal cavity?**
A: The mouth
Source: Evans2 (92)
- 11) **Q: Iron is an important component of hemoglobin. What is the purpose of iron in the bloodstream?**
A: Iron is needed for oxygen storage and transportation in the cells of the body
Source: EqSci (139)
- 12) **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 mold growth and mycotoxin production?**
A: Moisture
Source: Lewis2 (347)
- 13) **Q: How many days does estrus last?**
A: Five (5) to seven (7) days
Source: HIH (910-5)
- 14) **Q: What is the most widely used hormone for reproductive therapy in mares?**
A: Prostaglandin
Source: AYHC (930-3)

- 15) **Q: What are the two (2) major vectors around the barn responsible for transmission of stomach worms?**
A: Horseflies and stableflies
Source: Lewis2 (158)
- 16) **Q: What term refers to a disease of the muscle?**
A: Myopathy
Source: Evans2 (104)
- 17) **Q: What are the proteins found in body fluids, such as colostrum, that produce an immunity or resistance to foreign substances such as bacteria or viruses?**
A: Immunoglobulins
Source: Lewis2 (393)

TOSS-UP WITH BONUS ATTACHED

- 18) **Q: What term describes drugs that are administered to control parasite infection?**
A: Anthelmintics
Source: Evans2 (646)
- 19) **BONUS**
Q: What are four (4) factors that would influence your deworming program?
A: Climate, humidity, rainfall, season, stocking rate, class of horse, grazing system, etc.
Source: HIH (430-7)
- 20) **Q: When referencing the dental formula, what do the initials "I," "C," "P," and "M" stand for?**
A: I-incisors, C-canines, P-premolars, M-molars
Source: Evans2 (92)
- 21) **Q: Which two (2) types of equine herpesvirus can cause rhinopneumonitis?**
A: EHV strains one (1) and four (4)
Source: HIH (610-1)

TOSS-UP WITH BONUS ATTACHED

- 22) **Q: Describe three (3) characteristics of healthy equine urine.**
A: Somewhat thick and syrupy, cloudy and colored yellow to orange
Source: CAHA (68)

23) **BONUS**

- Q: The volume of urine excreted by a horse varies depending on what four (4) factors?**
A: Quantity of water consumed, type of feed, amount of work and environmental temperature
Source: CAHA (68)

- 24) **Q: Where did the Trakehner breed originate?**
A: East Prussia
Source: HIH (166-1)

- 25) **Q: Approximately how long, in feet, is the small intestine of the horse?**
A: Approximately seventy (70) feet
Source: EqSci (111)

- 26) **Q: How does the gestation length of the jennet compare to that of the mare?**
A: It is approximately thirty (30) days longer
Source: Evans2 (76)

TOSS-UP WITH BONUS ATTACHED

- 27) **Q: What is alopecia?**
A: Local or general loss of hair, usually associated with some type of inflammatory skin disease
Source: Evans2 (377)

28) **BONUS**

- Q: What are the nine (9) body systems of the horse?**
A: Digestive, nervous, skeletal, muscular, respiratory, circulatory, endocrine, reproductive, integumentary
Source: Evans2 (89)

- 29) **Q: Bacteria in the horses's hind gut can synthesize all vitamins except which two (2)?**
A: Vitamins A and E
Source: EqSci (122)
- 30) **Q: What organ serves a number of functions, such as transporting spermatozoa and other contributions of the testes to semen, concentrating the spermatozoa as a result of water absorption, and providing a place for maturation and storage of spermatozoa?**
A: Epididymus
Source: Evans2 (358)
- 31) **Q: What three (3) anatomical structures compose the mare's vulva?**
A: Labia, clitoris, and vestibule
Source: AYHCLM (326-1)
- 32) **Q: The meconium should be passed by the foal within twelve (12) hours of birth. What should be done if this does not occur?**
A: Give the foal an enema
Source: Evans2 (428)

END OF ROUND SIX

2013 District Horse Bowl Contest Mixed Division Round Seven

- 1) Q: What was the name of the foundation sire for the Tennessee Walking Horse Breeders Association in 1935?**
A: Allan F-1 (accept Black Allan)
Source: Evans2 (40)

- 2) Q: Name two (2) feedstuffs high in vitamin E.**
A: Green, growing forage, good- quality hay, cereal grains, and wheat germ oil
Source: Evans2 (219)

- 3) Q: List three (3) symptoms of Equine Cushing's Disease.**
A: Abnormal hair coat, lack of ability to shed hair, frequent urination, ravenous appetite, obesity, excessive drinking of water, muscle weakness, depressed attitude, bulging pad of fat above the eyes, lowered immune system making them susceptible to secondary infection
Source: EqSci (181)

- 4) Q: Name General Ulysses S. Grant's favorite horse.**
A: Cincinnatus
Source: Evans2 (8)

- 5) Q: Name two (2) types of test used to verify parentage.**
A: Blood-group tests, lymphocyte tests, DNA tests
Source: EqSci (102-103)

- 6) Q: Imagine your horse received a puncture wound and lost a tremendous amount of blood. What mineral deficiency would they be in danger of developing?**
A: Iron
Source: Lewis2 (39)

- 7) **Q: What specific part of alfalfa hay is either lost or has a lower nutritional value when baled too dry?**
A: The leaves
Source: AYHC (760-4)
- 8) **Q: What disease causes abnormal bone growth affecting the horse's joints and may cause cyst-like lesions of the bone or flat areas of joints?**
A: Osteochondrosis
Source: EqSci (101)
- 9) **Q: In what year was the American Paint Horse Association formed?**
A: 1962
Source: HIH (159-1)
- 10) **Q: When and where was Peter McCue foaled?**
A: 1895; Illinois
Source: Evans2 (25)
- 11) **Q: Explain what the term “single-foot gait” means.**
A: There is a brief moment when tracking that a horse has only one (1) foot on the ground
Source: EqSci (81)
- 12) **Q: In what county did the Halflinger originate?**
A: Austria
Source: Evans2 (74)
- 13) **Q: What is the capacity of the horse's stomach in gallons?**
A: Approximately 2-4 gallons
Source: EqSci (110)
- 14) **Q: What is another name for a single-rig pack?**
A: A center fire
Source: IDET (246)

- 15) **Q: How long does it take for the fertilized ovum to migrate from the oviduct to the mare's uterus?**
A: Approximately six (6) days (5-8 days)
Source: Evans2 (340)
- 16) **Q: The National Intercollegiate Rodeo Association, or NIRA, was founded in what year?**
A: 1949
Source: IDET (153)
- 17) **Q: Two (2) part question. Equine exertional myopathy is a condition affecting what type of muscle? When does it usually occur?**
A: It affects the skeletal muscles (those required for movement) and the heart muscle. It usually occurs shortly after beginning exercise
Source: Lewis2 (211)

TOSS-UP WITH BONUS ATTACHED

- 18) **Q: What two (2) distinct strains of Equine Influenza A have been identified?**
A: Equine 1 (H7N7) and equine 2 (H3N8)
Source: HIH (605-1)
- 19) **BONUS**
Q: List four (4) symptoms of equine influenza.
A: Fever, nasal discharge, rapid breathing, cough, loss of appetite
Source: EqSci (49)
- 20) **Q: What is the C locus responsible for?**
A: Expression of color genes
Source: Evans2 (477-478)
- 21) **Q: Blood is supplied to the lungs by what artery?**
A: Pulmonary artery
Source: EqSci (208)

TOSS-UP WITH BONUS ATTACHED

- 22) **Q: What is entropion?**
A: Inversion or turning inward of the eyelid
Source: Evans2 (523)
- 23) **BONUS**
Q: Name six (6) parts of the horse's eye.
A: Ciliary muscle, corpora nigra, pupil, cornea, iris, anterior chamber, lens, vitreous humor, optic nerve
Source: Evans2 (122)
- 24) **Q: What term describes the yellow-brown disc-like structure found in the placental fluids after parturition?**
A: Hippomane
Source: Evans2 (342)
- 25) **Q: Name three (3) systems in the horse's body that use smooth muscles.**
A: Digestive, circulatory, respiratory, urogenital
Source: HIH (840-1)
- 26) **Q: Snails are an intermediate host for the vector that carries what disease?**
A: Potomac Horse Fever
Source: HIH (445-11)

TOSS-UP WITH BONUS ATTACHED

- 27) **Q: *Musca domestica*, *Stomoxys calcitrans*, *Musca autumnalis* and *Haematobia irritans* are different species of what parasite?**
A: Flies
Source: AYHCLM (415-1)

28) BONUS

Q: What three (3) electrolytes are essential to maintain fluid balance, nerve and muscle function, and acid-base balance?

A: Sodium, potassium and chloride

Source: HIH (820-2)

29) Q: Approximately how long, in feet, is the horse's large intestine?

A: Twenty-five (25) feet

Source: Evans2 (192)

30) Q: If a mare is not pregnant after estrus what hormone is released from the uterus fourteen (14) to sixteen (16) days following ovulation? This hormone travels to the ovary where it causes destruction of the corpus luteum.

A: Prostaglandin F_{2α} (must be specific)

Source: AYHC (910-6)

31) Q: What is the purpose of annular ligaments?

A: They support and hold tendons in place

Source: CAHA2 (35)

32) Q: What two (2) types of vaccine are available to prevent tetanus?

A: Antitoxin and toxoid

Source: EqSci (172)

END OF ROUND SEVEN

2013 District Horse Bowl Contest Mixed Division Round Eight

- 1) Q: The small intestine is the primary site of digestion and absorption of what four (4) nutrients?**
A: Protein, vitamins, minerals, and energy
Source: EqSci (111)
- 2) Q: What is the formula for estimating a horse's weight?**
A: Heartgirth diameter squared times the length of the horse divided by 241.3
Source: Evans2 (296)
- 3) Q: What tendon prevents the knee from buckling forward?**
A: Lacertus fibrosus tendon
Source: Evans2 (712)
- 4) Q: What hormone causes the cervix of the mare to become relaxed during estrus?**
A: Estrogen
Source: Evans2 (127)
- 5) Q: The markers by which strains of Influenza A virus are designated are called what?**
A: Surface viral proteins
Source: HIH (605-1)
- 6) Q: Define the term "idiopathic."**
A: Arising from an unknown cause
Source: IDET (149)
- 7) Q: What is the volume of blood ejected from the heart with each contraction?**
A: Approximately one (1) liter
Source: Evans2 (111)

- 8) **Q: What term describes abnormal growth of the periosteum?**
A: Exostosis
Source: Evans2 (90)
- 9) **Q: How many acres are in a square mile?**
A: 640 acres
Source: Lewis2 (402)
- 10) **Q: What does the term "wry tail" indicate?**
A: A tail that is carried to one side rather than being held straight
Source: IDET (295)
- 11) **Q: Name one (1) place where the horse was first domesticated 6,000 years ago.**
A: Ukraine, Western Europe, or Central Asia
Source: EqSci (13)
- 12) **Q: What is hip dysplasia and how does it present in the horse?**
A: Hip dysplasia is when the upper hind leg fits into a flattened, shallow hip joint rather than a normal rounded cupped joint. The horse will have a mincing gait and severe lameness.
Source: Evans2 (519)
- 13) **Q: How many quarts of milk does the average mare produce daily?**
A: 9-11 quarts
Source: CAHA2 (69)
- 14) **Q: In what year did the Jockey Club stop registering Arabians and Anglo-Arabs?**
A: 1943
Source: Evans2 (17)
- 15) **Q: What is the function of the horse's nictitating membrane?**
A: Wipes foreign matter from the eye
Source: Evans2 (126)

16) **Q: What ligament connects the splint bone to the cannon bone?**

A: Interosseous ligament

Source: IDET (154)

17) **Q: What is the term for the carbohydrate present in plants and that cannot be digested by the horse?**

A: Cellulose

Source: IDET (52)

TOSS-UP WITH BONUS ATTACHED

18) **Q: List two (2) conditions caused by a vitamin C deficiency.**

A: Impaired wound healing, weak brittle bones, hemorrhage

Source: Lewis2 (59)

19) **BONUS**

Q: Give three (3) reasons why fats or oils may be added to the horse's diet.

A: Decrease dust, lubricate and lessen wear on feed preparation and mixing equipment, as a binder for pelleting, to give a horse a glossier hair coat, to increase the energy density of the diet

Source: Lewis2 (89)

20) **Q: Corn contains approximately what percent crude protein?**

A: Nine (9) percent

Source: AYHC (790-7)

21) **Q: What supplement may assist older horses in the digestion of fiber and has also been shown to enhance phosphorus absorption?**

A: Cultured yeast

Source: HIH (450-2)

TOSS-UP WITH BONUS ATTACHED

22) **Q: What is the difference between COPD and CPO?**

A: COPD- Chronic Obstructive Pulmonary Disease, CPO- Certified Pedigree Option (for Appaloosa horses without spots)

Source: Evans2 (108)

23) **BONUS**

Q: What are the three (3) basic types of horseshoe nails?

A: City, regular, frosthead

Source: Evans2 (738)

24) **Q: In cutting, what is it called when the horse stops working a cow even though the cow is still moving?**

A: Hot quit

Source: IDET (144)

25) **Q: How many days after foaling does the mare usually exhibit foal heat?**

A: 3-12 days

Source: AYHC (940-5)

26) **Q: What two (2) forms of Equine Encephalomyelitis may infect cows and pigs?**

A: Eastern and Venezuelan

Source: AYHC (625-3)

TOSS-UP WITH BONUS ATTACHED

27) **Q: What are alleles?**

A: Alleles are genes that are in a chromosome pair and are responsible for a particular genetic trait

Source: EqSci (90)

28) **BONUS**

Q: Name four (4) neurotoxic plants.

A: Sagebrush, locoweed, milkvetch, yellow star thistle, Russian knapweed, horsetail, snake grass, bracken fern, sensitive fern, white snakeroot, crofton weed, jimmyweed, burrow weed, Johnson grass, Sudan grass

Source: Lewis2 (315)

29) **Q: To be classified as a roughage, a feed must have more than what percent crude fiber?**

A: Greater than eighteen (18) percent

Source: Lewis2 (402)

- 30) Q: What are the three (3) primary types of qualitative gene action?**
A: Dominance, co-dominance and partial dominance
Source: HIH (1020-2)
- 31) Q: Mycotoxins are poisons produced by molds. Name the three (3) general molds that most commonly produce mycotoxins.**
A: Penicillium, Asperigillus and Fusarium
Source: Lewis2 (347)
- 32) Q: What part of the horse serves as a major fluid reservoir?**
A: Gastrointestinal tract
Source: Evans2 (118)

END OF ROUND EIGHT