

2011 NC 4-H Horse Program
District Horse Bowl Questions
Mixed Round One

Toss Up Questions

- 1) **Q- Horses that do not want to leave the barn are called what?**
A- Barn sour
S- AYHCLM (111-2)
- 2) **Q- What two (2) body parts work together to aid in the horse's hearing and sight capabilities?**
A- Eyes and ears
S- HIH (1220-2)
- 3) **Q- Where does the digestive process start?**
A- The mouth
S- EqSci (109)
- 4) **Q- What are the two (2) nutrients required for life by all horses in all situations?**
A- Water and forage
S- Lewis2 (147)
- 5) **Q- List three (3) characteristics a well conformed head should have?**
A- 1) Short Well set ears 2) Large Bold Eyes 3) Short distance from eyes to muzzle
4) Refined muzzle with shallow mouth
S- AYHCLM (323-1L)
- 6) **Q- What are blemishes?**
A- Abnormalities that do not affect the intended use or performance
S- HIH (230-1)
- 7) **Q- What is another name for tetanus?**
A- Lockjaw
S- Lewis2 (168)
- 8) **Q- What two types of vision does the horse utilize?**
A- Monocular and binocular
S- HIH (1220-1)
- 9) **Q- What is the most appropriate action to insure that your horse will remain tetanus free?**
A- Yearly vaccination
S- AYHCLM (beg 114-1)
- 10) **Q- What is a common term for horses whose toes point inward?**
A- Pigeon toed
S- HIH (230-1)

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- 11) **Q- What is the process that reduces the size of food particles and increases their surface area, commonly known as chewing?**
A- Mastication
S- EqSci (109)
- 12) **Q- What is the single most important characteristic in equine conformation?**
A- Balance
S- AYHCLM (223-2)
- 13) **Q- What term describes a red horse with darker red colored points?**
A- Tostado
S- EqSci (41)
- 14) **Q- A two (2) beat gait in which the legs move laterally is known as what?**
A- Pace
S- Evans2 (22)
- 15) **TOSS-UP WITH BONUS ATTACHED**
Q- Identify the three (3) base coat colors.
A- Black, bay and chestnut
S- EqSci (39)
- 16) **BONUS**
Q- What are three (3) advantages of feeding cubed or pelleted hay?
A- less waste, reduced intestinal fill (more can be fed), less storage space, reduced transportation cost, ease of transport for feeding away from home, minimal dust, facilitated automation in harvesting and feeding, reduced feces
S- Lewis2 (67)
- 17) **Q- What is the dominant color of the Lipizzan breed?**
A- Grey
S- HIH (174-1)
- 18) **Q- What is the name for the conformation defect where the upper teeth extend beyond the lower teeth?**
A- Parrot mouth or over-shot jaw
S- Evans2 (93)
- 19) **Q- What three (3) modern equines represent the three (3) evolutionary branches of the genus Equus?**
A- Horses, donkeys and zebras
S- HIH (156 B-1)

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- 20) **TOSS-UP WITH BONUS ATTACHED**
Q- Define the trot.
A- It is a two-beat gait in which the diagonal fore and hind legs move together.
S- Evans2 (173)
- 21) **BONUS**
Q- What are two (2) of the three (3) common names for rhabdomyolysis
A- Tying-up, Monday morning disease, and Azoturia
S- EqSci (100)
- 22) **Q- What type of bit applies pressure directly to the bars and tongue but not to the poll?**
A- Snaffle
S- AYHCLM (1100-8)
- 23) **Q- At what gait is a horse most apt to "crossfire"?**
A- Pace
S- EVANS2 (179)
- 24) **Q- What is the term for the estrus cycle that occurs seven (7) to ten (10) days after parturition?**
A- Foal heat
S- HIH (940-5)
- 25) **Q- List three (3) of the five (5) pieces equipment utilized to protect a horse during transport.**
A- Head bumper, blanket, knee pads, leg wraps, bell boots
S- AYHCLM (1150-3)
- 26) **TOSS-UP WITH BONUS ATTACHED**
Q- What is the term used to describe an atypical behavior that has become a bad habit?
A- Vice
S- Evans2 (182)
- 27) **BONUS**
Q- Name three (3) vices that are dangerous to the horse?
A- Cribbing, wood chewing, eating bedding, manure or dirt, bolting food, fighting, and shying.
S- Evans2 (183-184)
- 28) **Q- What blemish is typically caused by a horse having bench or offset knees?**
A- Splints
S- AYHCLM (230-3)
- 29) **Q- The body condition score system measures a horse's physical condition. Describe a horse with a body condition score of nine (9).**
A- Extremely obese
S- Lewis2 (11)

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- 30) **Q- What are vertical cracks in the hoof wall called?**
A- Sand cracks
S- HIH (540-2)
- 31) **Q- Which of the following feedstuffs is the highest in energy- barley, corn, or oats?**
A- Corn
S- EVANS2 (252)
- 32) **Q- Death can result from the ingestion of what insect in alfalfa hay?**
A- Blister beetle
S- Lewis2 (364)

END OF ROUND ONE

2011 NC 4-H Horse Program
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Toss Up Questions

- 1) **Q- Where is the horse's digital pulse taken?**
A- Above or below the pastern
S- EqSci (161-162)
- 2) **Q- Your horse is restless, sweating, pawing with its front feet, and kicks at its abdomen with hind feet. What are these signs of?**
A- Colic
S- AYHCLM (228-2)
- 3) **Q- What is done to remove sharp enameled points on the horse's teeth?**
A- Float or rasp the teeth
S- HIH (405-2)
- 4) **Q- "Pawprints," "bear paws" and "ink spots" are seen on what kind of horse?**
A- Paints/pintos
S- EqSci (39)
- 5) **Q- What is the best method for measuring a horse's grain?**
A- By weight
S- Lewis2 (109)
- 6) **Q- The horse has thirty-two (32) pairs of chromosomes. How many pairs does the donkey have?**
A- 31 pairs
S- Evans2 (429)
- 7) **Q- What condition, common on the horse's foot, is compared to athlete's foot in humans?**
A- Thrush
S- HIH (540-1)
- 8) **Q- What breed of horse is most likely to have Equine Night Blindness?**
A- Appaloosa
S- EqSci (101)
- 9) **Q- What are the three (3) basic parts of the bridle?**
A- Headstall, bit, and reins
S- AYHCLM (108-2)
- 10) **Q- The failure of one (1) or both testes to descend completely into the scrotum is called what?**
A- Cryptorchidism
S- Evans2 (520)

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Mixed Round Two

- 11) **Q- In degrees, what is the total range of vision for the horse?**
A- 350 degrees
S- EqiSci (56)
- 12) **Q- Mares that have never been bred are called what?**
A- Maiden mares
S- AYHCLM (230-1L)
- 13) **Q- Horses primarily get vitamin D from what source?**
A- From the sun
S- Evans2 (218)
- 14) **Q- How do the chestnuts on Zebras and donkeys differ from those of horses?**
A- Zebras and donkeys have chestnuts on the front legs only
S- EqSci (17)
- 15) **TOSS-UP WITH BONUS ATTACHED**
Q- What part of the hoof bears horse's weight?
A- The hoof wall
S- AYHCLM (221-1)
- 16) **BONUS**
Q- What are the four (4) physical characteristics a horse must have to be a registered Appaloosa?
A- Coat pattern, mottled skin, vertically striped hooves, white sclera around eye
S- HIH (158-1)
- 17) **Q- What is "pulmonary hemorrhage?"**
A- Bleeding from the lungs
S- Evans2 (111)
- 18) **Q- What type of western rein is connected with a flexible quirt or romal?**
A- Closed or California reins
S- AYHCLM (1100-8)
- 19) **Q- Name an acute, infectious, viral disease of the central nervous system that nearly always results in death.**
A- Rabies
S- IDET (227)
- 20) **TOSS-UP WITH BONUS ATTACHED**
Q- In each foreleg or hind leg, horses have one (1) large functional metacarpal or metatarsal bone. What is another name for this bone?
A- The cannon bone
S- EqSci (203)

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- 21) **BONUS**
Q- Name three (3) types of western saddles.
A- Endurance, trail/pleasure, western pleasure/equitation/show, reining, barrel racing, cutting
S- AYHCLM (1100-5)
- 22) **Q- What breed is most readily identified by a finely chiseled head and dished face, long arching neck, high tail carriage and small build?**
A- An Arabian
S- AYHCLM (110-1)
- 23) **Q- What is often considered the most common form of malnutrition in horses in the United States?**
A- Obesity
S- Evans2 (218)
- 24) **Q- What is your horse suffering from if he has dryness of the mucous membranes and eyes, decreased jugular vein distensibility, decreased rate of capillary refill and decreased skin elasticity?**
A- Dehydration
S- Lewis2 (200)
- 25) **Q- What does a farrier put on horseshoes to help hold the shoe more securely to the horse's hoof?**
A- Clips
S- HIH (525-2)
- 26) **TOSS-UP WITH BONUS ATTACHED**
Q- What is another term for reward training?
A- Positive reinforcement
S- AYHCLM (220-2)
- 27) **BONUS**
Q- Name three (3) artificial gaits.
A- Amble rack, stepping pace, pacing walk, slow gait, running walk, paso single foot
S- Evans2 (178)
- 28) **Q- What is a localized collection of pus in the tissues of the body, often accompanied by swelling and inflammation called?**
A- Abscess
S- Lewis2 (380)
- 29) **Q- Why should a potential horse farm site have a slope of two (2) to six (6) percent?**
A- For good drainage
S- AYHCLM (320-2)

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- 30) **Q- What is the grain most preferred by horsemen?**
A- Oats
S- Evans2 (251)
- 31) **Q- Approximately what percent of the total body calcium is contained in the skeleton and teeth?**
A- 99%
S- Lewis2 (20)
- 32) **Q- At what stage does the energy requirements of a pregnant mare increase?**
A- During the last third of gestation.
S- EVANS2 (295)

END OF ROUND TWO

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Toss Up Questions

- 1) **Q- What type of artifact appears at the gum margin of the upper corner incisors at about ten (10) years of age?**
A- Galvaynes's Groove
S- AYHCLM (105-2)
- 2) **Q- What is pole bending?**
A- A timed event in which the horse must travel a pattern with six poles.
S- Evans2 (156)
- 3) **Q- The ideal slope of the shoulder is how many degrees?**
A- 45 to 50 degrees
S- HIH (220-6)
- 4) **Q- What are the three (3) vital signs a skilled horseman needs to know how to take?**
A- Temperature, pulse, and respiration
S- EqSci (155)
- 5) **Q- Name three (3) classic rodeo events.**
A- Saddle bronc riding, bareback riding and bull riding.
S- Evans (162)
- 6) **Q- What parasite lay eggs on the horse's hair around forelegs, shoulders, check, neck, throat, jaws, and lips?**
A- Bot flies
S- Lewis2 (157)
- 7) **Q- What is the coil-like structure of DNA called?**
A- Double helix
S- EqSci (87)
- 8) **Q- Bones and joints make up the what?**
A- The skeletal system
S- Evans2 (181)
- 9) **Q- How many permanent teeth does the mare have?**
A- 36 teeth
S- AYHCLM (205-1)
- 10) **Q- During foaling, name the malpresentation for when the foal's rump or hind feet are presented first in the birth canal?**
A- Breech birth
S- IDET (38)

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- 11) **Q- What macromineral is needed for oxygen storage and transport in the cells of the horse?**
A- Iron
S- EqSci (139)
- 12) **Q- What is the most common infectious respiratory disease of the horse?**
A- Influenza
S- AYHCLM (101 -103)
- 13) **Q- How many toes did eohippus have on each foot?**
A- 4 toes on the front feet and 3 toes on the hind feet
S- EqSci (6)
- 14) **Q- What is another name for the shoulder blade?**
A- Scapula
S- Evans2 (97)
- 15) **TOSS-UP WITH BONUS ATTACHED**
Q- How many amino acids are there?
A- 22 amino acids
S- EqSci (117)
- 16) **BONUS**
Q- Name the five (5) basic nutrients a horse requires.
A- Water, protein, vitamins, minerals, energy-producing nutrients(energy) with includes carbohydrates, starch, sugar, fiber and fat
S- EqSci (114)
- 17) **Q- What are alleles?**
A- Genes that are located at the same physical position on a chromosome
S- Evans2 (209)
- 18) **Q- Infection of the cranial nuchal bursa is commonly referred to as what?**
A- Poll evil
S- CAHA2 (20)
- 19) **Q- What is a blood mark?**
A- A dark-colored "splotch" o the basic coat color, generally brown or red in color and seen on a lighter base coat color, but can also be seen on darker base colors.
S- EqSci (169)
- 20) **TOSS-UP WITH BONUS ATTACHED**
Q- What is the difference between a "sign" and a "symptom" of a disease?
A- Sign- objective, measurable evidence of a health issue (ex- temperature, pulse, respiration, etc); Symptom- subjective evidence of a health issue perceived by an observer (ex- animal not eating, lowered activity rate, lying down, etc)
S- EqSci (166)

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- 21) **BONUS**
Q- List three (3) types of closed wounds.
A- Bruises, contusions, sprains, and muscle and tendon rupture
S- HIH (440-5)
- 22) **Q- In reference to an english saddle, what is the "gullet"?**
A- The channel that runs down the center of the underside of the saddle, between the bars of the tree.
S- AYHCLM (1100-2)
- 23) **Q- What is the term used for an unbranded, stray horse?**
A- Maverick
S- IDET (176)
- 24) **Q- From what breed does almost every other breed of horse originate?**
A- Arabian
S- Evans2 (17)
- 25) **Q- What type of stall door is the safest and easiest to use?**
A- Sliding door
S- AYHCLM (320-6)
- 26) **TOSS-UP WITH BONUS ATTACHED**
Q- What is the name of a rubber or leather ring that lies between the horse's cheek and the bit ring or shank to prevent skin pinching?
A- Bit guards
S- IDET (29)
- 27) **BONUS**
Q- Name three (3) classes of horses that might require supplemental nutrients in addition to good pasture, fresh water and trace mineral salt.
A- Lactating mares, foals, breeding stallions & hardworking/performance horses
S- AYHCLM (730-1)
- 28) **Q- Where is the primary site of protein digestion?**
A- Small intestine
S- Evans2 (196)
- 29) **Q- What is the most important consideration when formulating a creep ration for a foal?**
A- Palatability (taste)
S- HIH (781-1)
- 30) **Q- What is the major cause of death in foals?**
A- Pneumonia
S- Lewis2 (258)

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- 31) **Q- At what age does a mare's reproductive ability decrease?**
A- After age 16
S- HIH (940-1)
- 32) **Q- What was the original name of the Standardbred breed?**
A- The American Trotting Horse
S- Evans2 (28)

END OF ROUND THREE

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Toss Up Questions

- 1) **Q- What is the legume most commonly fed as hay to horses?**
A- Alfalfa
S- AYHCLM (102-1)
- 2) **Q- What tool would the farrier use to trim the hoof wall?**
A- Nippers
S- HIH (535-3)
- 3) **Q- What is another name for "Swamp Fever"?**
A- Equine Infectious Anemia
S- EqSci (176)
- 4) **Q- What vice is described? The horse places its upper incisors on a horizontal solid surface, presses down, arches its neck and pulls back with a gulping air sound.**
A- Cribbing
S- Lewis2 (373)
- 5) **Q- Thrush is a black, strong smelling infection of the hoof that causes destruction of the frog. What type of bacteria is it caused by?**
A- Anaerobic bacteria
S- AYHCLM (334-1)
- 6) **Q- What is the primary way that parasites are spread?**
A- Through manure
S- HIH (430-4)
- 7) **Q- What is a term to describe a horse's general attitude toward its handlers and other horses?**
A- Disposition
S- IDET (82)
- 8) **Q- What is the difference between the skin color of a white horse and a gray horse?**
A- A white horse has pink skin and a gray horse has dark colored or pigmented skin.
S- EqSci (45)
- 9) **Q- Ductless glands responsible for the chemical control of the body make up what?**
A- The endocrine system
S- Evans2 (181)
- 10) **Q- How many times a year is the frog naturally shed?**
A- Twice, every 6 months
S- Evans2 (696)

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- 11) **Q- What is the “master gland” of the horse?**
A- The pituitary gland
S- EqSci (213)
- 12) **Q- The small intestine of a mature horse is approximately how long, in feet?**
A- 70 feet
S- HIH (710-2)
- 13) **Q- Name two (2) of the possible causes for the disappearance of horses from the prehistoric North American continent.**
A- Sudden climate change, disease epidemic, parasitic epidemic, competition for available food sources, failure to adapt to the environment
S- EqSci (8)
- 14) **Q- When muscle fibers are relaxed, what do they do?**
A- Lengthen
S- Evans2 (99)
- 15) TOSS-UP WITH BONUS ATTACHED
Q- A horse, under normal conditions, is able to cool off from the evaporation of sweat. Under what condition is sweating not very efficient?
A- High humidity
S- HIH (410-1)
- 16) BONUS
Q- Name four (4) internal and four (4) external parasites.
A- External- Flies, mosquitoes, Lice, Mites, Ticks, Ringworm,
Internal- Bloodworms (Strongyles), Large Strongyles, Small Strongyles, Bots, Lungworms,
Pinworms, Large roundworms, Stomach worms, Tapeworms, Threadworms
S- EqSci (186)
- 17) **Q- Muscles are attached to bones by what?**
A- Tendons
S- Evans2 (90)
- 18) **Q- The life cycle of the stable fly is longer than a house fly. How long does it take for the stable fly to mature from the egg to adult stage?**
A- 3 to 4 weeks
S- HIH (415-2)
- 19) **Q- At rest, what is the normal respiration rate of the horse?**
A- 8-16 times per minute
S- Evans2 (108)

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- 20) **TOSS-UP WITH BONUS ATTACHED**
Q- Vitamin A's main function is to assist with what sense?
A- Vision
S- EqSci (123)
- 21) **BONUS**
Q- Name the three (3) types of negative reinforcement.
A- Punishment, escape and avoidance
S- Evans2 (665)
- 22) **Q- It is estimated that 25% of Arabians carry the gene for which hereditary disease?**
A- Combined Immune Deficiency (CID)
S- AYHCLM (1060-4)
- 23) **Q- What is another name for vitamin A?**
A- Ascorbic Acid
S- EqSci (130)
- 24) **Q- The speed of the horse is determined by what two (2) things?**
A- Stride frequency and stride length
S- EVANS2 (169)
- 25) **Q- How many body types are recognized by the American Miniature Horse Associate and what are they?**
A- 2 types; Arabian and Quarter Horse
S- AYHCLM (154-1)
- 26) **TOSS-UP WITH BONUS ATTACHED**
Q- What does the term "supple" mean?
A- Flexible, the ability of the horse to bend and flex its entire body
S- IDET (259)
- 27) **BONUS**
Q- Name five (5) factors that can affect respiration rate of the horse.
A- Excitement, exercise, age, size, environmental temperature, pregnancy, a full digestive tract and disease
S- CAHA2 (67)
- 28) **Q- When taking a horse's pulse on his leg, you would lightly press the artery against which bone?**
A- Sesamoid
S- AYHCLM (505-5)
- 29) **Q- What minerals are needed for the formation of bone?**
A- Calcium and phosphorous
S- Evans2 (221)

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- 30) **Q- What is another name for the grain sorghum?**
A- Milo
S- HIH (760-6)
- 31) **Q- What is the most nutritious part of the hay?**
A- Leaves
S- AYHCLM (710-5)
- 32) **Q- Janus was a foundation sire for two (2) different breeds. Name these breeds.**
A- Quarter horse and Thoroughbred
S- Evans2 (24)

END OF ROUND FOUR

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Toss Up Questions

- 1) **Q- Where is fiber digested?**
A- The large intestine
S- Evans2 (199)
- 2) **Q- What is the most common equine internal parasite?**
A- Strongyles (bloodworms)
S- HIH (430-1)
- 3) **Q- Chromosomes are located in what part of the cell?**
A- The nucleus
S- EqSci (86)
- 4) **Q- What is the "chestnut rule" when discussing genetics?**
A- Mating a chestnut mare to a chestnut stallion can only produce a chestnut foal
S- Evans2 (479)
- 5) **Q- Why is an excess intake of fat soluble vitamins more dangerous than an excess intake of water soluble vitamins?**
A- Fat soluble vitamins are poorly excreted from the body whereas water soluble vitamins are more readily excreted
S- Lewis2 (42)
- 6) **Q- Name three (3) types of martingales.**
A- Standing, running, and Irish
S- Evans2 (655)
- 7) **Q- Fill in the blank. Horses and humans are known as "dead-end" carriers of _____, meaning that they have so few virus particles in their bloodstream that they cannot pass it on to another mammal.**
A- West Nile Virus
S- HIH (665-1)
- 8) **Q- What "organ" is used for prehension?**
A- The upper lip
S- Evans2 (93)
- 9) **Q- Wood chewing is an example of a behavior that is contagious or infectious in horses. What is the scientific name for this type of behavior?**
A- Allelomimetic (Mimicry)
S- EVANS 2 (676)
- 10) **Q- Horses with EIPH (Exercise Induced Pulmonary Hemorrhage) are often referred to as what?**
A- Bleeders
S- HIH (810-2)

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- 11) **Q- What is the primary nerve of the front limbs?**
A- Brachial plexus
S- EqSci (212)
- 12) **Q- What is the primary function of the respiratory system?**
A- To oxygenate blood so oxygen can be carried to the tissues
S- Evans2 (104)
- 13) **Q- Where are the intercostal muscles located?**
A- Between the ribs
S- AYHCLM (895-1)
- 14) **Q- What is a common water soluble vitamin supplement used to promote healthy hoof growth?**
A- Biotin
S- EqSci (128)
- 15) **TOSS-UP WITH BONUS ATTACHED**
Q- What is the measurement of nitrogen contained in the feed called?
A- Crude protein
S- Evans2 (212)
- 16) **BONUS**
Q- What are the three (3) distinct spotted coat patterns of the American Paint Horse?
A- tobiano, overo or tovero
S- HIH (159-3)
- 17) **Q- What is an "obligate parasite"?**
A- A parasite that cannot survive away from the host animal
S- AYHCLM (300-1)
- 18) **Q- What organic acid is produced by anaerobic muscle metabolism?**
A- Lactic acid
S- IDET (163)
- 19) **Q- What is the main function of the large colon?**
A- To absorb water
S- EqSci (113)
- 20) **TOSS-UP WITH BONUS ATTACHED**
Q- What is another term for the sinoatrial node (S-A node) in the wall of the right atrium?
A- Pacemaker
S- CAHA2 (58)

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- 21) **BONUS**
Q- What are the bones of the thigh and leg above the hock joint?
A- Femur, patella, tibia, and fibula
S- CAHA2 (29)
- 22) **Q- The dilution gene affecting color is an example of what type of gene action, which results in an intermediate state?**
A- Partial dominance
S- AYHCLM (1020-3)
- 23) **Q- In reference to racing, what is a "sleeper?"**
A- A horse that unexpectedly wins a race having previously shown poor form
S- IDET (248)
- 24) **Q- Horses may eat dirt as a sign of what mineral deficiency?**
A- Iron
S- Evans2 (303)
- 25) **Q- What material are "never-rust" bits and hardware made of?**
A- Solid nickel
S- AYHCLM (1100-10)
- 26) **TOSS-UP WITH BONUS ATTACHED**
Q- Specifically, what type of horses run in the All American Futurity?
A- 2 year old Quarter Horses
S- IDET (6)
- 27) **BONUS**
Q- Name four (4) different types of horse trailers?
A- Side-by-side, in-Line, slant-load, stock, horse van
S- AYHCLM (301-1)
- 28) **Q- What is another name for heaves?**
A- Chronic Obstructive Pulmonary Disease
S- Evans2 (301)
- 29) **Q- If a horse has "pediculosis," what is he infested with?**
A- Lice
S- Lewis2 (165)
- 30) **Q-What are the three (3) segments of the epididymis?**
A- The head (caput), body (corpus) and tail (cauda)
S- AYHCLM (227-2L)
- 31) **Q- What is the major advantage of using artificial insemination?**
A- More mares can be bred per season
S- Evans2 (376)

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- 32) Q- A deficiency in what vitamin may impair reproductive ability?
A- Vitamin E
S- Lewis2 (33)

END OF ROUND FIVE

2011 NC 4-H Horse Program
District Horse Bowl Questions
Mixed Round Six

Toss Up Questions

- 1) **Q- Fill in the blank. The two (2) most important dietary energy components in feeds are _____ and _____.**
A- Carbohydrate and fat
S- HIH (820-1)
- 2) **Q- What type of wound always requires the administration of a tetanus vaccine?**
A- Puncture
S- AYHCLM (109-1)
- 3) **Q- What ancestor of the horse walked the earth approximately twenty-eight (28) million years ago on three toes and was about the size of a modern Shetland pony?**
A- Merychippus
S- EqSci (9)
- 4) **Q- A horse should be fed approximately how many pounds of grain and forage for every 100 pounds of weight?**
A- 2 pounds
S- EqSci (106)
- 5) **Q- Why are fats and oils needed in the horse's diet?**
A- For the absorption of the fat soluble vitamins A,D,E,K and as a source of the unsaturated fatty and linoleic acid.
S- Lewis2 (18)
- 6) **Q- "Borreliosis" is commonly referred as what?**
A- Lyme disease
S- HIH (655-1)
- 7) **Q- Imagine your horse received a puncture wound and lost a tremendous amount of blood. What mineral deficiency would your horse be in danger of developing?**
A- Iron
S- Lewis2 (39)
- 8) **Q- At what age should a vaccination program begin?**
A- 3 months
S- Evans2 (564)
- 9) **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
S- Lewis2 (393)

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- 10) **Q- What is another name for *Streptococcus equi*?**
A- Strangles
S- HIH (615-1)
- 11) **Q- Which breed of horse would be most likely to be missing a vertebra?**
A- Arabian
S- Evans2 (97)
- 12) **Q- What disease is described as an incompatibility between the mare's and foal's blood group that results in foal anemia and destruction of the foal's red blood cells by the mare's immune system?**
A- Neonatal isoerythrolysis or NI
S- EqSci (102)
- 13) **Q- The ovary is responsible for the production of what two (2) hormones?**
A- Estrogen and progesterone
S- HIH (910-4)
- 14) **Q- Riding with one (1) stirrup leather shorter than the other by jockeys is called acey-deucey. What is the purpose of this?**
A- To keep balance around sharp turns
S- IDET (2)
- 15) **TOSS-UP WITH BONUS ATTACHED**
Q- The atlanto-axial joint is what type of joint?
A- Pivot joint
S- CAHA2 (7)
- 16) **BONUS**
Q- Name three (3) issues that can be caused by a horse chewing wood.
A- Excessive tooth wear, colic, mouth infections, possibly choke
S- Evans2 (183)
- 17) **Q- What are the three (3) major types of hay?**
A- Legumes, grasses and cereal grains
S- Lewis2 (63)
- 18) **Q- What type of colic is produced by abnormal accumulations of gas in the intestines?**
A- Distension colic
S- CAHA2 (55)
- 19) **Q- What are the four (4) classifications of bones?**
A- Long, short, flat and irregular
S- Evans2 (90)

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- 20) **TOSS-UP WITH BONUS ATTACHED**
Q- Which part of the brain controls reproduction?
A- Hypothalamus
S- HH (910-5)
- 21) **BONUS**
Q- Name the five (5) regions of the spinal column.
A- Cervical, thoracic, lumbar, sacral and coccygeal
S- Evans2 (96)
- 22) **Q- Are roan horses homozygous or heterozygous and why is this true?**
A- Heterozygous; the homozygous ones die before or shortly after birth
S- AYHCLM (1040-3)
- 23) **Q- The hypoglossal nerve controls the muscles of what organ?**
A- The tongue
S- CAHA2 (78)
- 24) **Q- Which English breed of horse is most likely descended from the chargers used in the Middle Ages for jousting?**
A- Shire
S- IDET (243)
- 25) **Q- Rations containing what percentage of forage will likely contain sufficient levels of magnesium for unstressed horses?**
A- 50%
S- AYHCLM (1150-1)
- 26) **Q- The addition of which amino acid into the diet will increase growth rate?**
A- Lysine
S- Evans2 (219)
- 27) **Toss-up with a bonus attached!**
Q- Who was the first racehorse to win two (2) million dollars?
A- Affirmed
S- IDET (4)
- 28) **BONUS**
Q- There are two (2) different meanings for the word "haw" when talking about horses. What are they?
A- The third eyelid, and a teamster's term for signaling a team to the left
S- IDET (130)
- 29) **Q- At what stage are red maple leaves toxic to horses?**
A- When they are wilted or dried
S- Lewis2 (331)

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Mixed Round Six

- 30) **Q- Hambletonian 10 is listed in ninety-nine percent (99%) of all pedigrees in what breed?**
A- Standardbred
S- Evans2 (29)
- 31) **Q- What are the four (4) stages of a parasite's life cycle?**
A- Egg, larvae, pupa and adult
S- EqSci (184)
- 32) **Q- What is a symptom of vitamin A deficiency in the horse?**
A- Excessive tearing and night blindness
S- Lewis2 (47)

END OF ROUND SIX

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District Horse Bowl Questions
Mixed Round Seven

Toss Up Questions

- 1) **Q – This poisoning, also referred as blind staggers, comes from ingesting what moldy feed?**
A – Moldy corn
S - Lewis2 (357)
- 2) **Q - What is a poultice used for?**
A – To increase blood supply to an area or to draw out infection
S - HIH (440-6)
- 3) **Q – Cryptorchidism is a condition in which there is a failure of one (1) or both testes to descend completely into the scrotum of the horse. Give the names for the two (2) types of cryptorchidism and state if the types are usually fertile or sterile.**
A - Unilateral-Fertile, Bilateral-Sterile
S - Evans2 (520)
- 4) **Q - What is the term for the luteal phase of estrus?**
A – diestrus
S - CAHA2 (71)
- 5) **Q - What gene restricts color distribution to the “points,” ie the mane, tail, lower legs and ear rims, by means of a pair of alleles?**
A - Agouti Gene
S - EqSci (95)
- 6) **Q - What is another name for the digital cushion?**
A - Plantar cushion
S - Evans2 (696)
- 7) **Q - Why is vitamin C not essential in the horse's diet?**
A – It is synthesized in the horse's digestive tract
S - IDET (284)
- 8) **Q - What organ is being described? It is dark purple, with a soft consistency; glandular; oblong in shape; located near the stomach; serves as reservoir for red blood cells and assists the body in combating infectious organisms?**
A - Spleen
S - LEWIS2 (404)
- 9) **Q - The mating of a chestnut with a cremello should produce offspring what color?**
A - Palomino
S - Evans2 (67)
- 10) **Q – What vertebrae compose the lowest part of the spinal column which extends into the rump area?**
A – Sacral vertebrae
S - IDET (239)

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Mixed Round Seven

- 11) **Q - What is the master gland of the horse?**
A - The pituitary gland
S - EqSci (213)
- 12) **Q - What is the meconium?**
A - A foal's first stool
S - CAHA2 (52)
- 13) **Q - How many vertebrae are present in the normal horse?**
A - 54
S - CAHA2 (54)
- 14) **Q - Name the three (3) gaits of the Paso Fino.**
A - Paso Fino (fine walk), Paso Corto (short walk), Paso Largo (long walk)
S - EqSci (82)
- 15) **TOSS-UP WITH BONUS ATTACHED**
Q - Name two (2) things that good quality legume hay is higher in than good quality grass hay.
A - Energy, protein, calcium, vitamin A, B vitamins
S - AYHCLM (202-1)
- 16) **BONUS**
Q - Name the four (4) cavities of the horse's skull.
A - Orbital, cranial, nasal and bucal
S - Evans2 (90)
- 17) **Q - What is a "mecate" and how long is it?**
A - A long combination lead rope and reins attached to the heel of a bosal; 21 feet
S - IDET (178)
- 18) **Q - In what year did Secretariat win the Triple Crown?**
A - 1973
S - Evans2 (24)
- 19) **Q - One of the first requirements for registration in the United States Trotting Association is the ability to trot or pace a mile in what amount of time?**
A - 2 minutes and 30 seconds
S - HIH (160-1)
- 20) **TOSS-UP WITH BONUS ATTACHED**
Q - What two (2) options does an owner of a horse with a positive Coggins test have?
A - 1) Horse is freeze branded & kept in quarantine; 2) Horse is euthanized
S - Lewis2 (175)

2011 NC 4-H Horse Program
District Horse Bowl Questions
Mixed Round Seven

- 21) **BONUS**
Q - Name the three (3) foundation sires of the thoroughbred.
A - Byerly Turk, Godolphian Arabian (or Barb), Darley Arabian
S - Evans2 (21)
- 22) **Q - What two (2) types of vaccines are available to treat tetanus?**
A - Antitoxin and toxoid
S - EqSci(172)
- 23) **Q - What are the two (2) most important considerations when selecting a horse trailer?**
A - Comfort and safety
S - HIH (1155-2)
- 24) **Q - The forearm of the horse is composed of what two (2) bones?**
A - The radius and the ulna
S - Evans2 (684)
- 25) **Q - Give the common name for the tarsal joint.**
A - Hock
S - Lewis2 (393)
- 26) **TOSS-UP WITH BONUS ATTACHED**
Q - What an average reining score?
A - 70
S - HIH (162-1)
- 27) **BONUS**
Q - The Jockey Club registers Thoroughbred horses foaled in what three (3) countries?
A - United States, Puerto Rico, and Canada
S - HIH (157-1)
- 28) **Q - What term describes fermented forage plants?**
A - Silage
S - LEWIS2 (403)
- 29) **Q - What is the purpose of the meiotic cycle?**
A - To produce gametes or sex cells
S - EqSci (70)
- 30) **Q - What are signals called that travel from the afferent nerves, and instead of reaching the brain, go directly to the spinal cord and then back to the efferent nerves and the muscles?**
A - Reflexes
S - EqSci (114)
- 31) **Q - What is the minimum size requirement for a foaling stall, in feet?**
A - 12 feet by 16 feet
S - Evans2 (780)

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District Horse Bowl Questions
Mixed Round Seven

- 32) Q – Why are the cecum and colon so large in the horse?
A – So that food moves slower to give bacteria time to break down cellulose
S – EqSci (92)

END OF ROUND SEVEN

2011 NC 4-H Horse Program
District Horse Bowl Questions
Mixed Round Eight

Toss Up Questions

- 1) **Q – What is the depression on the bottom of the frog called?**
A - Central sulcus or cleft
S - Evans2 (695)
- 2) **Q - What disease is an uncommon, rapidly fatal septicemic disease caused by *Bacillus anthracis* contracted through biting fleas or by ingestion?**
A – Anthrax
S - Lewis2 (175)
- 3) **Q – A common complication in the healing of leg wounds is the formation of what?**
A – Excessive granulation
S – AYHCLM (109-2)
- 4) **Q - Name the breed that is a solid, sturdy, docile horse that was originally developed for Army use. It hails from West Germany and is used for show jumping, dressage and combined training.**
A – Trakehener
S - IDET (273)
- 5) **Q – In what country was polo developed?**
A - Persia
S - Evans2 (162)
- 6) **Q – A horse’s body contains approximately how much blood?**
A – 13.2 gallons for 50 liters
S - HIH (830-1)
- 7) **Q - What is the normal equine hearing range, in kilohertz?**
A – 55 hertz to 33.5 kilohertz
S - EqSci (64)
- 8) **Q - What is the fluid that lubricates a joint?**
A - Synovial fluid
S - Evans2 (182)
- 9) C1 **Q – When talking about equine insurance, what does "ASD" stand for?**
A - Accident, Sickness, Death
S - HIH (1340-3)
- 10) **Q - Name one (1) area where the horse was first domesticated 6,000 years ago.**
A – Ukraine, Western Europe, or Central Asia
S - EqSci (13)

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District Horse Bowl Questions

Mixed Round Eight

- 11) **Q – What is the lining of the uterus called?**
A - Endometrium
S - CAHA2 (70)

- 12) **Q – What disease is caused by a tumor on the pituitary gland?**
A – Cushing’s disease
S - EqSci (181)

- 13) **Q - An endurance horse can get thumps from a deficit of what two (2) minerals?**
A – Calcium and Potassium
S - Evans2 (273)

- 14) **Q - What is the most common cause of heaves, Chronic Obstructive Pulmonary Disease, asthma or broken wind in horses?**
A – Hypersensitivity or allergy to fungal spores in hay or bedding
S - Lewis2 (291)

- 15) **TOSS-UP WITH BONUS ATTACHED**
Q - What two (2) colors of horses are always heterozygous because the homozygote fetuses die early during fetal development and are almost never born?
A – White and roan
S – AYHCLM (1040-3)

- 16) **BONUS**
Q – What are the six (6) organs in the respiratory system?
A - Nasal cavity, pharynx, larynx, trachea, bronchi and lungs
S - Evans2 (192)

- 17) **Q - What disease is caused by excessive phosphorous and a low level of calcium?**
A – Big head disease
S - Evans2 (228)

- 18) **Q – To be considered a business rather than a hobby by the IRS, how many years must a horse business make a profit?**
A – 2 out of every 7 years
S - HIH (1360-2)

- 19) **Q –A poorly ventilated barn can result in a horse having what type of respiratory problem?**
A – Pneumonia or breathing problems
S - AYHCLM (320-7)

- 20) **TOSS-UP WITH BONUS ATTACHED**
Q –In what type of horse is tying up most common?
A – Very fit horses that are on regular daily exercise but have missed a few days and stayed on full feed
S - Evans2 (611)

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Mixed Round Eight

- 21) **BONUS**
Q - As of 2007, there are five (5) known genetic mutations possible in horses. Name three (3) of the five (5).
A - HYPP (Hyperkalemic Periodic Paralysis) SCID (Severe Combined Immunodeficiency), OLWS (Overo Lethal White Syndrome), JEB (Junctional Epydermolysis Bulosa), GBED (Glycogen Branching Enzyme Deficiency)
S - HIH (1095-1)
- 22) **Q - Name one (1) of the three (3) states with the highest equine population.**
A - Texas, California or Florida
S - EqSci (34)
- 23) **Q - The four (4) primary paths of water loss from the horse body are what?**
A - Urine, feces, sweat and respiration
S - Evans2 (244)
- 24) **Q - Name two (2) issues associated with using concrete as a stall floor.**
A - More bedding is needed to soak up urine that does not drain, cold, slippery, increased leg problems
S - HIH (320-3)
- 25) **Q - What are the soft swellings on the front or sides of the fetlock joint, caused by injury to the joint capsule of the fetlock, called?**
A - Osselets
S - EqSci (141)
- 26) **TOSS-UP WITH BONUS ATTACHED**
Q - What is an inflammation of the sesamoid called?
A - Navicular disease
S - EVANS2 (98)
- 27) **BONUS**
Q - What are four (4) of the six (6) factors that can influence a deworming program?
A - Climate, humidity, rainfall, season, concentration of horses per land area, age of horses
S - HIH (430-7)
- 28) **Q - What is it important conformationally for a horse to have a "clean" throatlatch?**
A - Enhances the ease of breathing and allows for maximum flexion of the chin without binding the jaws on the neck
S - EqSci (164)
- 29) **Q - The body of the horse is made up of many systems. Which system includes the brain, spinal cord and associated nerves and special sensors?**
A - The nervous system
S - Evans2 (89)

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- 30) **Q – What is “histogenesis?”**
A – The process of tissue formation
S – EqSci (73)
- 31) **Q – How much longer is the gestation period of the jennet compared to a mare, in days?**
A – App 30 days longer
S – EVANS2 (76)
- 32) **Q – A horse requires a minimum of how many gallons of water per 100 pounds of body weight per day?**
A – 1 gallon per 100 lbs
S – EqSci (271)

END OF ROUND EIGHT