

**2015 NC 4-H Horse Program State Horse Bowl Contest
Mixed Division
Round One**

- 1. What is the most accurate method for determining a horse's age?**
A: By examining the teeth
SOURCE: EVANS 2nd (92)
- 2. What is the proper term for the egg stage of lice?**
A: Nits
SOURCE: EVANS 2nd (664)
- 3. How does a horse see objects that are close up?**
A: By raising its head
SOURCE: AYHC 1st (1220-1)
- 4. What is the transparent membrane that covers the front of the eye?**
A: Cornea
SOURCE: NEWHOR (69)
- 5. A horse given a numerical body condition score of "9" would be categorized as what?**
A: Extremely fat
SOURCE: AYHC 1st (710-4, 720-3)
- 6. This unsoundness is an enlargement on the point of the hock, usually caused by bruising.**
A: Capped hock
SOURCE: EVANS 2nd (159, 164-165)
- 7. On what continent did the genus Equus originate?**
A: North America
SOURCE: EVANS 2nd (4)
- 8. What breed is represented by the letters POA?**
A: Pony of the Americas
SOURCE: AYHC 1st (167B-1)
- 9. The tibia and fibula bones form the anatomical basis of which structure?**
A: Gaskin
SOURCE: EVANS 2nd (687)
- 10. What is nephritis?**
A: Inflammation of the kidneys
SOURCE: NEWHOR (189)
- 11. What breed is mainly used today as a harness racing horse?**
A: Standardbred
SOURCE: AYHC YL (110-2)

12. What is the term used to describe a professional specializing in equine hoof care?

A: Farrier
SOURCE: AYHC 1st (555-1)

13. What is another name for excessive granulation tissue?

A: Proud flesh
SOURCE: AYHC YL (109-2)

14. Which state is best known for the development of the Fox Trotting Horse?

A: Missouri
SOURCE: EVANS 2nd (41)

BONUS ATTACHED

15. What is another name for the prepuce of the stallion?

A: Sheath
SOURCE: EVANS 2nd (359)

BONUS

16. Name four (4) vital signs you should assess during an examination of an unhealthy horse.

A: 1. Temperature
2. Pulse
3. Respiration
4. Capillary refill time
5. Mucous membranes
6. Skin pliability
SOURCE: AYHC 1st (425-1)

17. What is the primary site of fiber digestion in the horse?

A: Large intestine (large colon)
SOURCE: EVANS 2nd (199)

18. What is meconium?

A: A foal's first stool
SOURCE: KAINER (52)

19. A concave or sagging back is called what?

A: Swayback or lordosis
SOURCE: EVANS 2nd (152), EVANS 2nd (152)

BONUS ATTACHED

20. What is the major legume harvested for horse consumption?

A: Alfalfa
SOURCE: LEWIS 2nd (63)

BONUS

21. Name four (4) blemishes or unsoundnesses of the hind leg.

- A: 1. Knocked down hip
 2. Stifle lameness or gonitis
 3. Upward fixation of the patella
 4. Stringhalt
 5. Capped hock
 6. Curb
 7. Thoroughpin
 8. Bog spavin
 9. Bone spavin (jack spavin)
 10. Occult spavin (blind spavin)
 11. Blood spavin

SOURCE: EVANS 2nd (164-166), NEWHOR (33)

22. What is the name for a type of removable pad screwed into the horseshoe that is used when medication must be applied to the bottom of the foot?

A: Hospital plate or pad

SOURCE: AYHC YL (231-3)

23. This part of the horse should ideally be hard with a slick, shiny, and slightly waxy appearance. It is commonly called the horse's foot.

A: Hoof

SOURCE: AYHC YL (104-2)

24. Chronic Obstructive Pulmonary Disease (or COPD) is also known as what?

A: Heaves

SOURCE: EVANS 2nd (301), AYHC 1st (810-3)

BONUS ATTACHED

25. What color describes a flaxen mane and tail?

A: Yellow to almost white

SOURCE: EVANS 2nd (476)

BONUS

26. Name the five (5) coat color variations.

- A: 1. Dun
 2. Gray
 3. Palomino
 4. Paint/Pinto
 5. Roan

SOURCE: EVANS 2nd (80)

27. The Coggin's test detects what disease?

A: Equine Infectious Anemia (swamp fever)

SOURCE: LEWIS 2nd (175)

28. This type of pack saddle is usually rigged for a double cinch and is best suited for hanging panniers.

A: Crossbuck (sawbuck)

SOURCE: AYHC 1st (1125-1)

29. What is another name for Founder?

A: Laminitis

SOURCE: EVANS 2nd (297)

30. How many furlongs are in a one mile race?

A: 8 furlongs

SOURCE: EVANS 2nd (139)

31. What is the recommended height for a horse stall?

A: 7-8 ft

SOURCE: AYHC YL (107-2), AYHC 1st (320-5)

32. In what organ of the horse's body does blood become saturated with oxygen?

A: Lungs

SOURCE: AYHC 1st (830-1)

END OF ROUND ONE

**2015 NC 4-H Horse Program State Horse Bowl Contest
Mixed Division
Round Two**

- 1. What is the name for an infection of the frog that is common in stabled horses?**
A: Thrush
SOURCE: EVANS 2nd (167)
- 2. In the stallion, what structure near the testicle provides a place for storage and maturation of spermatozoa?**
A: Epididymis
SOURCE: EVANS 2nd (358)
- 3. What is the name for the second cervical vertebrae?**
A: Axis
SOURCE: NEWHOR (19)
- 4. Name the breed used as the foundation stock for remount stations of the Conquistadors; it is also known as the "horse with the fine walk."**
A: Paso Fino
SOURCE: AYHC 1st (165B-1)
- 5. What is the name for a wound that has torn edges and is irregular in shape?**
A: Laceration
SOURCE: AYHC YL (109-1)
- 6. What is the name of the small snaffle bit that is used with a curb bit on the double bridle?**
A: Bridoon (also spelled bradoon)
SOURCE: NEWHOR (39)
- 7. Which animal related to the horse has a great deal more reasoning ability than the horse?**
A: Donkey
SOURCE: AYHC 1st (1240-7)
- 8. Buffalo gnats are another term for which type of fly?**
A: Black flies
SOURCE: AYHC YL (100-2)
- 9. A mare's first estrous cycle after foaling is referred to as what?**
A: Foal heat
SOURCE: LEWIS 2nd (238)
- 10. Wood shavings from which tree can cause laminitis?**
A: Black walnut
SOURCE: AYHC 1st (330-1), LEWIS 2nd (323)

11. What is the name for chaps that extend slightly beyond the knee?

A: Chinks
SOURCE: NEWHOR (55)

12. What disease is a horse most likely to get from a bite from a raccoon, skunk, or bat?

A: Rabies
SOURCE: AYHC 1st (445-7)

13. What English breed of horse most likely descended from the chargers used in the middle ages for jousts?

A: Shire
SOURCE: NEWHOR (243)

14. What is another name for the shoulder blade?

A: Scapula
SOURCE: EVANS 2nd (97)

BONUS ATTACHED

15. Name the paint horse color pattern that is a mixture of the Overo and Tobiano patterns.

A: Tovero
SOURCE: AYHC 1st (159-3)

BONUS

16. Name three (3) symptoms of tetanus.

A: 1. Stiffness of head and neck
2. Constant erectness of ears
3. Stiff tail
4. Prominent third eye lid or prolapse of the third eye lid
5. Inability to eat or drink
SOURCE: GRIFFITHS (172)

17. The mouthpiece of a bridle is better known as what?

A: Bit
SOURCE: AYHC 1st (110-5)

18. The rasping or removal of sharp enamel points on the teeth is known as what?

A: Floating
SOURCE: AYHC 1st (405-2)

19. The growth of what in a pasture would indicate overgrazing or inadequate fertilization?

A: Weeds
SOURCE: AYHC 1st (730-2), LEWIS 2nd (107)

BONUS ATTACHED

20. Erythrocytes are another name for what?

A: Red blood cells

SOURCE: EVANS 2nd (117)

BONUS

21. Name four (4) horse colors that result from dilution of a base color.

- A:
1. Buckskin
 2. Dun
 3. Grulla
 4. Palomino
 5. Cremello
 6. Perlino

SOURCE: EVANS 2nd (481-482)

22. Goiter can be caused by ingestion of too much or too little of this mineral.

A: Iodine

SOURCE: LEWIS 2nd (34)

23. What occurs during the third (3rd) stage of labor or parturition?

A: The expulsion of the afterbirth or placenta

SOURCE: EVANS 2nd (421)

24. Name the official foundation sire of the Tennessee Walking Horse.

A: Allan F-1 or Black Allan

SOURCE: EVANS 2nd (40)

BONUS ATTACHED

25. When using a western saddle it is important for it to fit properly, especially across what part of the horse?

A: Withers

SOURCE: AYHC YL (108-1)

BONUS

26. List four (4) methods of processing grain.

- A:
1. Grinding
 2. Dry rolling
 3. Crimping
 4. Roasting
 5. Pelleting
 6. Soaking
 7. Steam rolling
 8. Extruding

SOURCE: AYHC 1st (760-9)

27. What color is a horse with a golden body color, white mane and tail, and no dorsal stripe?

A: Palomino

SOURCE: AYHC 1st (164B-1)

28. What insect commonly causes problems with alfalfa hay?

A: Blister beetle

SOURCE: AYHC 1st (760-2), LEWIS 2nd (364-365)

29. If a horse has a retained cap, what is its problem?

A: It failed to shed (lose) deciduous teeth

SOURCE: AYHC 1st (405-2)

30. What is the name for milk produced by the mare for the first few days after foaling?

A: Colostrum

SOURCE: NEWHOR (62)

31. What is the muscle that separates the abdominal and thoracic cavities?

A: Diaphragm

SOURCE: NEWHOR (80)

32. This type of wound is superficial and results from scraping against an irritant surface.

A: Abrasion

SOURCE: AYHC YL (109-1)

END OF ROUND TWO

**2015 NC 4-H Horse Program State Horse Bowl Contest
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Round Three**

- 1. Which cereal grain is available in regular, heavy and hull-less types?**
A: Oats
SOURCE: LEWIS 2nd (73)
- 2. A horse has several blind spots. Name a situation when a rider would need to take the visual limitations of their horse into consideration.**
A: Nearing a jump, crossing a stream, approaching a barrel in a barrel pattern, stepping over an object on a trail
SOURCE: GRIFFITHS (58)
- 3. Why would an owner administer an anthelmintic to their horse?**
A: For internal parasite control or to de-worm them
SOURCE: LEWIS 2nd (159), NEWHOR (12)
- 4. What pony breed is known for its jumping ability?**
A: Connemara
SOURCE: EVANS 2nd (65)
- 5. Dressage is the French term meaning what?**
A: Training
SOURCE: AYHC 1st (181D-1), NEWHOR (84)
- 6. If you see a horse prick up its ears in a certain direction, why should you pay attention?**
A: Horses can hear sounds in ranges that humans cannot; horses can move their ears and hear in almost any direction
SOURCE: GRIFFITHS (64)
- 7. Name the contagious disease caused by infection with *Streptococcus equi*?**
A: Strangles (distemper)
SOURCE: EVANS 2nd (596), AYHC 1st (615-1)
- 8. What is the term for a mare that has never been bred?**
A: Maiden
SOURCE: NEWHOR (174)
- 9. What is the common name for the second and fourth metacarpal bones?**
A: Splint bones
SOURCE: EVANS 2nd (685)
- 10. The esophageal sphincter muscle is responsible for the horse's inability to do what two things?**
A: Vomit and burp
SOURCE: GRIFFITHS (110)

11. Spermatozoa are transported from the tail of the epididymis to the urethra by what structure?

A: Vas deferens
SOURCE: EVANS 2nd (358)

12. A horse can become infected with this parasite after ingesting an oribatid mite while grazing.

A: Tapeworms
SOURCE: AYHC 1st (430-4)

13. What is a vector?

A: A living or non-living thing that can transmit infective agents
SOURCE: GRIFFITHS (169)

14. Linseed meal is a by-product of what seed?

A: Flax
SOURCE: LEWIS 2nd (85)

BONUS ATTACHED

15. The travel distance to a fire extinguisher from any point in the barn should be no more than how many feet?

A: 75 feet
SOURCE: AYHC 1st (340-2)

BONUS

16. List four (4) of the seven (7) macro-minerals needed by the body.

A: 1. Calcium
2. Phosphorus
3. Sodium
4. Chlorine
5. Potassium
6. Magnesium
7. Sulfur
SOURCE: LEWIS 2nd (19)

17. In what year was the AQHA (American Quarter Horse Association) formed?

A: 1940
SOURCE: AYHC 1st (153-1)

18. What is the term commonly used to describe the behavioral signs of abdominal pain in horses?

A: Colic
SOURCE: AYHC 1st (635-1)

19. What surface should you never stand a horse on when measuring height?

A: Dirt or gravel
SOURCE: GRIFFITHS (27)

BONUS ATTACHED

20. The sex of a foal is determined by which parent?

A: Sire

SOURCE: GRIFFITHS (74)

BONUS

21. List four (4) advantages of feeding cubed or pelleted hay.

- A:
1. Less wastage
 2. Reduced intestinal fill (thus horse can consume more)
 3. Less storage space needed
 4. Reduced transportation cost
 5. Ease of transport for feeding away from home
 6. Minimal dust (when made properly)
 7. Reduced feces
 8. Reduced mold spores
 9. Reduced cost compared to hay (region dependent)

SOURCE: LEWIS 2nd (67)

22. What is the term for the louder and deeper vocalization of the donkey?

A: Bray

SOURCE: GRIFFITHS (21)

23. Name the parasite that mainly infects young foals and is ingested via larvae in the mare's milk.

A: Threadworms (strongyloides westeri)

SOURCE: AYHC 1st (430-3)

24. Muscles are classified into three (3) categories. Which one is under voluntary control and functions in the movement of the horse?

A: Skeletal muscle

SOURCE: AYHC 1st (840-1)

BONUS ATTACHED

25. Chewing wood, eating bedding, or eating feces are behaviors seen in horses that do not have sufficient amounts of what in their diets?

A: Long-stemmed roughage or hay

SOURCE: AYHC 1st (710-5)

BONUS

26. Name four (4) of the five (5) basic coat colors.

- A:
1. Black
 2. Bay
 3. Brown
 4. Chestnut
 5. White

SOURCE: EVANS 2nd (90)

27. 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 30 seconds

SOURCE: AYHC 1st (160-1)

28. What part of the brain controls coordination of movement?

A: Cerebellum

SOURCE: NEWHOR (53)

29. What is the function of vitamin K?

A: It is needed to produce factors that ensure proper blood clotting

SOURCE: GRIFFITHS (125)

30. Which bacterium causes tetanus or lockjaw?

A: Clostridium tetani

SOURCE: EVANS 2nd (601)

31. Describe what is meant by the term "singlefoot gait."

A: There is a brief moment where the horse has only 1 foot on the ground

SOURCE: GRIFFITHS (81)

32. What is the maximum height of a Shetland pony in inches?

A: 46 inches

SOURCE: EVANS 2nd (58)

END OF ROUND THREE

**2015 NC 4-H Horse Program State Horse Bowl Contest
Mixed Division
Round Four**

- 1. Body condition in horses is measured on what numerical scale?**
A: 1 to 9
SOURCE: LEWIS 2nd (11), AYHC 1st (720-3)
- 2. The oviducts connect the ovary to what structure in the mare?**
A: Uterus
SOURCE: LEWIS 2nd (403)
- 3. What is a true Navajo blanket made from?**
A: Wool
SOURCE: AYHC 1st (1100-5)
- 4. What is considered to be the normal resting respiration rate of a foal?**
A: 20-40 breaths per minute
SOURCE: GRIFFITHS (155)
- 5. This appears at the gum margin of the upper corner incisors at about 10 years of age.**
A: Galvayne's groove
SOURCE: AYHC YL (105-2); EVANS 2nd (93)
- 6. 2 part question: How many times should you vaccinate a pregnant mare for rhinopneumonitis during her pregnancy and do you need to vaccinate her foal for rhinopneumonitis once it is born?**
A: 3 times (5, 7, and 9 months); yes
SOURCE: EVANS 2nd (614)
- 7. Following ovulation, this structure forms on the ovary and secretes progesterone.**
A: The corpus luteum (CL)
SOURCE: LEWIS 2nd (236)
- 8. What type of wound is characterized by a small skin opening with soft tissue penetration to various depths?**
A: Puncture wound
SOURCE: AYHC YL (109-1)
- 9. Name the hormone secreted by one animal that alters the behavior of another animal.**
A: A pheromone
SOURCE: NEWHOR (211)

10. The leaves of what tree are toxic in the wilted or dried state but are safe for horses to eat when fresh and green?

A: Red maple tree
SOURCE: LEWIS 2nd (331)

11. What breed was developed for its smooth gaits, such as the flat foot walk, running walk, and “rocking chair” canter?

A: Tennessee Walking Horse
SOURCE: AYHC YL (110-1)

12. Hambletonian is a famous sire from which breed?

A: Standardbred
SOURCE: EVANS 2nd (28-29)

13. What is the bedding of choice for foaling stalls?

A: Straw
SOURCE: AYHC 1st (330-1)

14. A diet with excessive phosphorus may cause what condition?

A: Big Head Disease (osteodystrophia fibrosa) or hyperparathyroidism
SOURCE: GRIFFITHS (132, 135)

BONUS ATTACHED

15. What is the title of the cowboy who helps the rodeo rider off a bronc when the ride is completed?

A: Pickup man
SOURCE: NEWHOR (211)

BONUS

16. Name five (5) types of corrective and therapeutic shoes or modifications that can be made to shoes.

A:

1. Half-rim
2. Square toe
3. Calk at first outside nail hole
4. Heel calks
5. Lateral toe extension
6. Shoe with trailer
7. Half shoe
8. Bar across break over point
9. Rolled toe
10. Bar shoe
11. Slipped heels
12. Chadwick spring
13. Heart bar shoe

SOURCE: EVANS 2nd (166-168)

17. If a horse is cantering in the clockwise direction, what lead would be correct?

A: Right lead
SOURCE: GRIFFITHS (76)

18. Describe the term “tostado.”

A: A red-colored horse with darker red-colored points
SOURCE: GRIFFITHS (45)

19. Melanoma tumors are most commonly associated with what coat color?

A: Gray
SOURCE: EVANS 2nd (514)

BONUS ATTACHED

20. This type of bit has a mouthpiece that is jointed with a ring at each end, giving direct pressure on the corners of the horse’s mouth.

A: Snaffle bit
SOURCE: AYHC YL (108-3)

BONUS

21. Name four (4) body areas where fat cover is assessed when using the body condition scoring system for horses.

A: 1. Back
2. Ribs at midbarrel
3. Neck
4. Behind the shoulders at the forerib
5. Withers
6. Tailhead
SOURCE: AYHC YL (203-2)

22. What is the color marking that extends from the coronary band almost to the knee of the horse?

A: Stocking
SOURCE: AYHC 1st (140-2)

23. The primary site of fat-soluble vitamin absorption is where?

A: Small intestine
SOURCE: EVANS 2nd (200)

24. During the breeding season, how long is the mare’s estrous cycle?

A: 21 days (+/- 2 days)
SOURCE: LEWIS 2nd (236)

BONUS ATTACHED

25. The establishment of dominance hierarchies among groups of horses is commonly referred to as what?

A: Pecking order
SOURCE: EVANS 2nd (677)

BONUS

26. Name four (4) artificial gaits that have four-beats.

- A: 1. Amble
 2. Rack
 3. Stepping pace
 4. Pacing walk
 5. Slow gait
 6. Running walk
 7. Paso
 8. Single foot

SOURCE: EVANS 2nd (178)

27. What is the term for inflammation in a joint?

A: Arthritis

SOURCE: AYHC 1st (350-2)

28. The fundamental purpose of this riding discipline is to develop, through standardized progressive training methods, the horse's natural athletic ability and willingness to perform.

A: Dressage

SOURCE: AYHC 1st (181D-1)

29. The rack is a flashy gait performed by which breed?

A: American Saddlebred

SOURCE: EVANS 2nd (40)

30. Concave or rim horseshoes have creasing all the way around the shoe. What is the benefit of this design?

A: It provides for greater traction

SOURCE: AYHC YL (231-2)

31. The artery that carries blood from the heart to the lungs is called what?

A: Pulmonary artery

SOURCE: NEWHOR (222)

32. Horses with this genetic disease have a defect that causes their skin to be overly stretchable, fragile, and vulnerable to trauma.

A: Hereditary equine regional dermal asthenia (HERDA) or Hyperelastosis cutis (HC)

SOURCE: AYHC 1st (675-1)

END OF ROUND FOUR

**2015 NC 4-H Horse Program State Horse Bowl Contest
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Round Five**

- 1. What is a common outward sign exhibited by a horse infected with pinworms?**
A: Tail rubbing
SOURCE: AYHC 1st (430-6)
- 2. What is the main artery of the hind leg?**
A: The femoral artery
SOURCE: EVANS 2nd (706)
- 3. This term is used to describe foaling problems that prevent delivery of the foal by the mare's effort alone.**
A: Dystocia
SOURCE: EVANS 2nd (423)
- 4. What is the term for an infection that is transmissible from animals to humans?**
A: Zoonosis
SOURCE: NEWHOR (298)
- 5. What is the name for the sharp beveled heads on some horseshoe nails used to increase traction on icy surfaces?**
A: Frosthead
SOURCE: EVANS 2nd (739)
- 6. What substance accumulates in the muscles and causes soreness and stiffness after an intense exercise workout?**
A: Lactic acid or lactate
SOURCE: AYHC 1st (895-1)
- 7. At what age do the permanent central incisors erupt?**
A: 2 ½ years
SOURCE: AYHC 1st (405-1)
- 8. A sudden movement of the horse away from a real or perceived reason for alarm is known as?**
A: Shying or bolting
SOURCE: LEWIS 2nd (378)
- 9. What is the outer layer of skin called?**
A: Epidermis
SOURCE: EVANS 2nd (128)
- 10. What is a good source of iodine?**
A: Iodized salt
SOURCE: GRIFFITHS (138)

11. What cells in the blood are known for their role in blood clotting?

A: Platelets

SOURCE: NEWHOR (214)

12. What color results from the single dilution of black?

A: Grulla

SOURCE: EVANS 2nd (81)

13. How does a horse become infected with West Nile Virus?

A: Through the bite of an infected mosquito

SOURCE: AYHC 1st (665-1)

14. What are the two (2) types of horse trailer hitches?

A: Gooseneck and bumper pull

SOURCE: AYHC 1st (1155-1)

BONUS ATTACHED

15. What is the normal body temperature range of the average adult horse?

A: 99-101 degrees Fahrenheit

SOURCE: GRIFFITHS (155)

BONUS

16. Put the following four (4) bones of the horse in order from proximal to distal: humerus, carpus, ulna, metacarpus.

A: 1. Humerus

2. Ulna

3. Carpus

4. Metacarpus

SOURCE: EVANS 2nd (91)

17. What is the main artery that carries blood away from the heart?

A: Aorta

SOURCE: NEWHOR (13)

18. Name the bridle used on gaited horses that is double-bitted and double-reined?

A: Weymouth bridle or double bridle

SOURCE: NEWHOR (290)

19. What is the term for a horse with low withers and very heavy shoulder muscling?

A: Mutton withered

SOURCE: NEWHOR (184)

BONUS ATTACHED

20. Which small horse breed is native to Sweden and served as a mount for the Vikings?

A: Gotland

SOURCE: EVANS 2nd (74)

BONUS

21. List four (4) hormones related to reproduction in the stallion.

- A: 1. GnRH
 2. LH (luteinizing hormone)
 3. FSH (follicle stimulating hormone)
 4. Testosterone
 5. Inhibin
 6. Melatonin

SOURCE: EVANS 2nd (361-362), AYHC 1st (920-2)

22. What disease is characterized by excessive hair growth that fails to shed?

A: Cushing's syndrome

SOURCE: AYHC 1st (450-5)

23. What term describes a bad habit that may affect a horse's usefulness, dependability, or health?

A: Vice

SOURCE: EVANS 2nd (182)

24. What is necrosis?

A: Death of skin or tissue

SOURCE: AYHC YL (109-3)

BONUS ATTACHED

25. Name the soft, puffy, fluid filled blemish that occurs around a joint capsule, tendon sheath, or bursa.

A: Wind puff (wind gall, road puff, road gall)

SOURCE: EVANS 2nd (162)

BONUS

26. What are the three (3) main goals of wound treatment?

- A: 1. Control hemorrhage or bleeding
 2. Clean wound.
 3. Promote rapid healing.

SOURCE: AYHC YL (109-4)

27. What coat color is a form of dun with a yellowish or flesh-colored body and a red tail and dorsal stripe?

A: Red dun

SOURCE: AYHC 1st (140-2)

28. What is the major site for bacterial invasion in a new foal's body?

A: Navel stump or umbilicus

SOURCE: AYHC YL (230-2)

29. Name one muscle that aids in temperature regulation of the testes to ensure proper sperm production.

A: Cremaster or tunica dartos

SOURCE: AYHC 1st (980-4)

30. What is an example of a non-living vector that can transmit EEE or eastern equine encephalitis?

A: Hypodermic needle

SOURCE: GRIFFITHS (169)

31. What is the simplest and least expensive method of dry processing grain?

A: Grinding

SOURCE: AYHC 1st (760-9)

32. In general, the angle of the horse's pastern corresponds to the angle of what other body part?

A: Shoulder

SOURCE: AYHC YL (232-2)

END OF ROUND FIVE

**2015 NC 4-H Horse Program State Horse Bowl Contest
Mixed Division
Round Six**

- 1. What term is used to describe competitive games on horseback that are usually based on speed?**
A: Gymkhana
SOURCE: NEWHOR (126)
- 2. What is the anatomical name for the hind cannon bone?**
A: Metatarsal bone (third metatarsal)
SOURCE: EVANS 2nd (684-685)
- 3. How is an English saddle measured?**
A: From the saddle nail to the mid-point of the cantle
SOURCE: AYHC 1st (1100-3)
- 4. What is the physical appearance of an animal due to the arrangement of muscle, bone, and other body tissues?**
A: Conformation
SOURCE: AYHC 1st (220-1)
- 5. Name the condition characterized by blood in the respiratory tract after exercise.**
A: Exercise induced pulmonary hemorrhage, EIPH, bleeders
SOURCE: AYHC 1st (810-2)
- 6. Dan Patch was a famous horse from which breed?**
A: Standardbred
SOURCE: EVANS 2nd (29-30)
- 7. What is the term for a horse whose front toes point inward?**
A: Pigeon toed
SOURCE: AYHC 1st (230-1)
- 8. Sexual receptivity in mares, or showing heat, is also known as what?**
A: Estrus
SOURCE: LEWIS 2nd (235)
- 9. Name the bone that fuses with the radius to form the forearm of the horse?**
A: Ulna
SOURCE: NEWHOR (278)
- 10. If the middle incisors are so far forward that they do not contact the incisors of the lower jaw, the horse is said to be what?**
A: Parrot-mouthed
SOURCE: AYHC 1st (405-4)

11. What is the name for the semi-horny structure located above the knee on the medial side of the legs?

A: Chestnuts
SOURCE: EVANS 2nd (688)

12. What is the stored form of glucose called?

A: Glycogen
SOURCE: LEWIS 2nd (391)

13. Approximately 60% of the horse's iron is found in what substance?

A: Hemoglobin in the red blood cells
SOURCE: GRIFFITHS (139)

14. Which part of the digestive system is the site of major nutrient absorption?

A: Small intestine
SOURCE: AYHC 1st (710-1)

BONUS ATTACHED

15. What is meant by the term 'anaerobic' reaction?

A: A reaction that does not use oxygen
SOURCE: AYHC 1st (850-1)

BONUS

16. Name four (4) of the six (6) joints that comprise the front leg.

A: 1. Shoulder
2. Elbow
3. Carpus (knee)
4. Fetlock
5. Pastern
6. Coffin
SOURCE: EVANS 2nd (98)

17. What is the main way horses become infected with Lyme disease?

A: Through the bite of a tick
SOURCE: AYHC 1st (655-1)

18. Which type of vision allows a horse to see objects in greater detail and in three dimensions?

A: Binocular vision
SOURCE: GRIFFITHS (58)

19. What Native American tribe played an important role in the development of the Appaloosa breed?

A: Nez Perce
SOURCE: AYHC 1st (152B-1)

BONUS ATTACHED

20. What is meant by the term 'stocking-up'?

A: Swelling of a horse's lower legs
SOURCE: NEWHOR (257)

BONUS

21. Name the four (4) shapes which are used to classify bones.

A: 1. Long
2. Short
3. Flat
4. Irregular
SOURCE: EVANS 2nd (90)

22. Large, heavy-bodied horses with small feet are usually predisposed to what condition?

A: Navicular disease
SOURCE: AYHC 1st (455-2)

23. What organ is affected by equine encephalitis?

A: Brain
SOURCE: AYHC 1st (625-1)

24. What is another term for the Fallopian tubes?

A: Oviduct
SOURCE: EVANS 2nd (319)

BONUS ATTACHED

25. How many beats are in the gait known as the Paso?

A: Four (4)
SOURCE: EVANS 2nd (178)

BONUS

26. Name four (4) hormones related to reproduction in the mare.

A: 1. GnRH
2. FSH
3. LH
4. Estrogen
5. Progesterone
6. Prostaglandin
7. Oxytocin
8. Prolactin
9. Melatonin
SOURCE: EVANS 2nd (337-8), AYHC 1st (910-5-7)

27. Age determination of a horse uses the twelve front teeth which are called what?

A: Incisors
SOURCE: AYHC YLM (105-1)

28. What condition occurs only in young horses and causes inflammation of the growth plate of the long bones?

A: Epiphysitis, OCD, osteochondrosis, physitis

SOURCE: EVANS 2nd (163), NEWHOR (197)

29. What was the first war in which horses did not play a major part?

A: World War II

SOURCE: GRIFFITHS (14)

30. The North American opossum is the definitive host for what equine disease?

A: Equine protozoal myeloencephalitis (EPM)

SOURCE: AYHC 1st (670-1)

31. Standing in urine and wet manure will cause a breakdown of the waxy-like waterproof covering of the hoof. What is the proper name for this covering?

A: Periople

SOURCE: GRIFFITHS (LEWIS 2nd 178)

32. The small bones at the rear of the fetlock are called?

A: Sesamoid bones

SOURCE: NEWHOR (242)

END OF ROUND SIX

**2015 NC 4-H Horse Program State Horse Bowl Contest
Mixed Division
Round Seven**

- 1. To minimize symptoms, horses with hyperkalemic periodic paralysis or HYPP should be fed a diet low in which mineral?**
A: Potassium
SOURCE: LEWIS 2nd (298)
- 2. One of the horse's unique behavioral characteristics is that its primary defense is what?**
A: Flight
SOURCE: AYHC 1st (320-1)
- 3. What is the term for the area under the fork, swells, or pommel of the saddle?**
A: Gullet
SOURCE: NEWHOR (125)
- 4. Which draft breed is known as the breed of blacks and grays?**
A: Percheron
SOURCE: EVANS 2nd (69)
- 5. How is equine influenza transmitted from one horse to another?**
A: Through aerosol droplets when the horse exhales or coughs
SOURCE: AYHC 1st (605-1)
- 6. Which two (2) minerals are provided together to meet a horse's salt requirement?**
A: Sodium and chloride
SOURCE: LEWIS 2nd (25), EVANS 2nd (236)
- 7. Why are white markings recorded by veterinarians on Coggins and other health documents?**
A: They are an excellent tool for animal identification because no two horses have exactly the same white marking patterns
SOURCE: GRIFFITHS (97)
- 8. What is the principal host of the face fly?**
A: Cattle
SOURCE: AYHC YL (300-1)
- 9. Meiosis occurs only in reproductive cells and produces gametes. Name the two organs where this type of cell division occurs.**
A: Ovaries (in the mare) and testes (in the stallion)
SOURCE: GRIFFITHS (88)
- 10. Sole bruises caused by leaving short heeled shoes on too long are called what?**
A: Corns
SOURCE: AYHC 1st (540-2)

11. Name the two-beat, lateral gait where the left front and left hind feet land at the same time.

A: Pace

SOURCE: EVANS 2nd (31)

12. What is one (1) reason molasses is added to horse rations?

A: Increase palatability, decrease dust, act as a binder for pelleting (or to keep ingredients from sifting out)

SOURCE: LEWIS 2nd (98), EVANS 2nd (253)

13. Which forage is most commonly infected with a mold that will cause profuse salivation in horses?

A: Red clover

SOURCE: LEWIS 2nd (302)

14. Name the functioning units where gas exchange occurs in the lungs.

A: Alveoli

SOURCE: AYHC 1st (810-1)

BONUS ATTACHED

15. What is the more common name for an infection that penetrates the white line of the sole and travels under the hoof wall until it abscesses at the coronet?

A: Gravel

SOURCE: EVANS 2nd (167)

BONUS

16. The body of the horse is made up of nine (9) distinct systems – name five (5).

- A:
1. Skeletal
 2. Muscular
 3. Respiratory
 4. Circulatory
 5. Digestive
 6. Nervous
 7. Endocrine
 8. Reproductive
 9. Integumentary (skin)

SOURCE: EVANS 2nd (89)

17. Describe the distinct difference between a horse 'graying' and a horse 'roaning'.

A: Graying is progressive with the horse getting more white hairs as it ages. The number and pattern of white hairs on a roan does not change with age.

SOURCE: EVANS 2nd (475-476)

18. How long does a horse remain infected with Equine Infectious Anemia?

A: For life

SOURCE: AYHC 1st (630-1)

19. Name the miniature horse from Argentina.

A: Falabella
SOURCE: NEWHOR (103)

BONUS ATTACHED

20. Name the genetic disease that is only found in colts and results in the inability of the blood to clot, resulting in hematoma, internal bleeding, anemia, and death.

A: Hemophilia or Hemophilia A
SOURCE: GRIFFITHS (99), NEWHOR (138)

BONUS

21. Name four (4) characteristics of a well-conformed horse head.

A: 1. Short, well-set ears
2. Large or kind eyes
3. Short distance from eye to muzzle
4. Large nostrils
5. Refined muzzle with a shallow mouth
6. Sex and/or breed characteristics of the head

SOURCE: EVANS 2nd (200)

22. An adult horse has how many total incisors?

A: 12
SOURCE: EVANS 2nd (92)

23. This small, general purpose horse from Austria resembles a small Belgian at first look.

A: The Haflinger
SOURCE: EVANS 2nd (74)

24. Name one (1) of the accessory sex glands found in the stallion.

A: Vesicular glands, bulbourethral glands, prostate gland
SOURCE: EVANS 2nd (360)

BONUS ATTACHED

25. Repeated exposure to sweat, mud, and filth can lead to this skin condition of the fetlock.

A: Scratches
SOURCE: EVANS 2nd (601)

BONUS

26. Name the four (4) GI structures in order that are included in the hindgut of the horse?

A: 1. Cecum
2. Large colon
3. Small colon
4. Rectum
SOURCE: AYHC 1st (710-2)

27. What is the ratio of respiratory rate to stride rate during the gallop?

A: 1:1 ratio - with expiration occurring as the front limbs make ground contact
SOURCE: AYHC YL (325-2)

28. Name one (1) B-vitamin that does not have a number assigned to it.

A: Biotin, folic acid, niacin, and pantothenic acid
SOURCE: GRIFFITHS (128)

29. Cardiac output is the measure of how much blood the heart can pump in one minute. Cardiac output is the product of what two variables?

A: Heart rate x stroke volume
SOURCE: AYHC YL (225-2)

30. Name the wound characterized by tearing of skin to cause a loose flap.

A: Avulsion
SOURCE: EVANS 2nd (609)

31. English stirrups should be wide enough to allow how much room on either side of the widest part of the rider's foot?

A: $\frac{1}{4}$ "
SOURCE: AYHC 1st (1100-3)

32. The sebaceous glands produce what substance?

A: Oil
SOURCE: GRIFFITHS (214)

END OF ROUND SEVEN

**2015 NC 4-H Horse Program State Horse Bowl Contest
Mixed Division
Round Eight**

- 1. Which two (2) bones make up the horse's forearm?**
A: Radius and ulna
SOURCE: EVANS 2nd (684)
- 2. Name the fluid that lubricates a joint.**
A: Synovial fluid
SOURCE: EVANS 2nd (90)
- 3. What does the term 'olfactory' refer to?**
A: Sense of smell
SOURCE: NEWHOR (195)
- 4. What has to happen for stage 1 of labor to be complete?**
A: Breaking of the "water bag" (fetal membranes, chorio-allantioic membranes)
SOURCE: EVANS 2nd (417-418)
- 5. Name the farrier tool that is placed in an anvil hole for the purpose of cutting steel.**
A: Hardy
SOURCE: NEWHOR (130)
- 6. Which mineral undergoes uptake and release as an extremely important part of muscle contraction?**
A: Calcium
SOURCE: AYHC 1st (840-1)
- 7. What is the term for a female donkey?**
A: Jennet
SOURCE: EVANS 2nd (75)
- 8. Where are the turbinate bones located?**
A: In the nose (head)
SOURCE: NEWHOR (276)
- 9. Where on the horse would you find ergots?**
A: On the back of each fetlock
SOURCE: EVANS 2nd (128)
- 10. Name the largest salivary gland.**
A: Parotid
SOURCE: EVANS 2nd (190)

11. What structure is the primary point of attachment of the forelimbs to the equine body?

A: Scapula or shoulder blades
SOURCE: EVANS 2nd (146)

12. The single, double, triple diamond, squaw and Arizona are what?

A: Types of hitch knots
SOURCE: AYHC 1st (1125-1)

13. What is the name of the class in which reining maneuvers are set to music in a format designed by the competitor?

A: Freestyle
SOURCE: AYHC 1st (183D-2)

14. Name one (1) part of the body where glycogen is stored.

A: Kidneys, liver, and muscles
SOURCE: GRIFFITHS (146)

BONUS ATTACHED

15. Individual animals that have identical paired genes for a specific trait are said to be what for that trait?

A: They are homozygous for that trait
SOURCE: AYHC YL (335-1)

BONUS

16. List four (4) of the letters marking points in the dressage ring.

A: 1. A
2. B
3. C
4. E
5. F
6. H
7. K
8. M

SOURCE: NEWHOR (85)

17. Bile, produced by the liver and secreted into the small intestines, emulsifies what substance?

A: Fat
SOURCE: GRIFFITHS (111)

18. As a horse ages, what direction do the incisors slant?

A: Forward or outward
SOURCE: AYHC 1st (240-3)

19. Who is the foundation sire of the POA breed?

A: Black Hand
SOURCE: EVANS 2nd (60)

BONUS ATTACHED

20. Monensin is a substance added to cattle feed to improve feed efficiency. Why should horse owners be aware of this fact?

A: Monensin is highly toxic to horses
SOURCE: EVANS 2nd (282)

BONUS

21. Name four (4) factors that influence semen production.

A: 1. Season of the year
2. Frequency of ejaculation
3. Age
4. Testicular size
5. Sexual stimulation
6. Exogenous steroids

SOURCE: EVANS 2nd (368-374)

22. When used in reference to an animal, what term describes a glossy hair coat, healthy appearance, and good body condition?

A: Bloom
SOURCE: LEWIS 2nd (382), NEWHOR (33)

23. What is the most commonly used metal for manufacturing bits?

A: Stainless steel
SOURCE: AYHC 1st (1100-10)

24. Where would hippomanes be found?

A: In the allantoic fluid; passed out during parturition with the foal
SOURCE: EVANS 2nd (342)

BONUS ATTACHED

25. This genetic condition results from an incompatibility of the mare's and foal's blood type and causes destruction of red blood cells in the newborn foal.

A: Neonatal isoerythrolysis
SOURCE: GRIFFITHS (102)

BONUS

26. List the four (4) fat soluble vitamins.

A: 1. A
2. D
3. E
4. K

SOURCE: LEWIS 2nd (42)

27. Most equine nutritional problems in the United States are associate with what practice?

A: Overfeeding
SOURCE: GRIFFITHS (106)

28. What is the most economical source of supplemental protein for horses?

A: Soybean meal

SOURCE: AYHC YL (103-1)

29. What is the unit of energy representing the amount of heat required to raise one gram of water one degree centigrade?

A: A calorie

SOURCE: LEWIS 2nd (384)

30. Venezuelan, Eastern, and Western are the three most common types of which equine disease?

A: Equine encephalomyelitis or sleeping sickness

SOURCE: EVANS 2nd (599)

31. What grain processing method uses rollers with corrugated surfaces?

A: Crimping

SOURCE: AYHC 1st (760-9)

32. Why do animals that go into shock have a lower capillary-refill time?

A: All the available blood is moving away from the extremities and toward the center of the body to maintain function of the vital organs

SOURCE: GRIFFITHS (163)

END OF ROUND EIGHT

**2015 NC 4-H Horse Program State Horse Bowl Contest
Mixed Division
Round Nine**

- 1. Why should gates be located in the middle of a fence line rather than at a corner?**
A: Horses tend to congregate at gates, so this prevents them from being trapped in a corner by aggressive horses
SOURCE: AYHC 1st (350-6)
- 2. What is the largest tissue mass in the horse's body?**
A: The muscles
SOURCE: EVANS 2nd (99)
- 3. What registry resulted from crossing the Arabian and Morgan horse?**
A: The Morab registry
SOURCE: EVANS 2nd (45)
- 4. The crossing of what two (2) specific equine parents can result in a foal having Lethal White Foal Syndrome?**
A: Two (2) overo horses
SOURCE: EVANS 2nd (513)
- 5. What is an androgen?**
A: A male sex hormone (secreted by the testes)
SOURCE: EVANS 2nd (127)
- 6. What is the common name for this foot infection caused by the anaerobic bacteria, Fusobacterium Necrophorum?**
A: Thrush
SOURCE: AYHC 1st (540-1)
- 7. What is the purpose of a flexion test?**
A: To detect lameness or problems with a joint
SOURCE: NEWHOR (110)
- 8. What is the term for the eye of the lariat through which the rope is passed to form a loop?**
A: Honda
SOURCE: NEWHOR (141)
- 9. A small amount of white hair located on the horse's muzzle is known as what?**
A: Snip
SOURCE: AYHC 1st (140-2)
- 10. The young horse has how many deciduous or milk teeth?**
A: 24
SOURCE: EVANS 2nd (92)

11. Give one (1) example of a meat industry waste product that can be used as a protein source for your horse.

A: Bone meal or blood meal
SOURCE: GRIFFITHS (122)

12. When should the Galvayne's groove reach the wearing surface of the horse's teeth?

A: At 20 years of age
SOURCE: AYHC 1st (240-2)

13. Why do most horsemen prefer to ride a shallow-mouthed horse?

A: A shallow-mouthed horse is softer and more responsive to the bit
SOURCE: AYHC YL (323-2)

14. Amino acids are made from carbon, hydrogen, oxygen, and one additional element that makes them different from carbohydrates and fats. What is the other element?

A: Nitrogen
SOURCE: GRIFFITHS (117)

BONUS ATTACHED

15. Name the substance that lubricates the horse's eye.

A: Lacrimal fluid or tears
SOURCE: EVANS 2nd (125)

BONUS

16. List four (4) aspects of performance that are given credit when scoring a reining horse competition.

A: 1. Smoothness
2. Finesse
3. Attitude
4. Quickness or speed
5. Authority
SOURCE: AYHC 1st (162-2)

17. What is a chemical substance produced in the body that has a specific effect on the function of a certain organ? They are produced by ductless glands that are part of the endocrine system and are transported via the circulatory system.

A: Hormone
SOURCE: NEWHOR (143), EVANS 2nd (126)

18. Describe the behavior of a proud-cut horse.

A: Stallion-like; aggressive
SOURCE: LEWIS 2nd (400)

19. What organ in the horse is most affected by moldy corn poisoning?

A: Brain
SOURCE: LEWIS 2nd (357)

BONUS ATTACHED

20. What conformation fault has a short steep croup that narrows at the point of the buttocks?

A: Goose-rumped
SOURCE: NEWHOR (123)

BONUS

21. List four (4) early signs of infection in the foal.

A: 1. Decreased appetite
2. Generalized weakness
3. Weakened suck reflex
4. Mild dehydration
5. Fever
SOURCE: EVANS 2nd (595)

22. Why would a farrier use a hoof gauge?

A: To determine the angle of the hoof
SOURCE: NEWHOR (142)

23. This breed of horse has four identifiable characteristics: mottled skin, vertically striped hooves, a white sclera, and a coat pattern.

A: Appaloosa
SOURCE: AYHC YL (110-2), EVANS 2nd (32)

24. What is another name for the third phalanx?

A: Coffin or pedal bone
SOURCE: EVANS 2nd (98)

BONUS ATTACHED

25. What is the name of the outer covering of a grain?

A: Hull
SOURCE: LEWIS 2nd (393)

BONUS

26. Name four (4) of the five (5) walk gaits in a dressage test.

A: 1. Working walk
2. Collected walk
3. Medium walk
4. Extended walk
5. Free walk
SOURCE: EVANS 2nd (174)

27. The Agouti gene is responsible for the color of the hair on what part of the horse's body?

A: The points (mane, tail, lower legs, and ear rims)
SOURCE: GRIFFITHS (96)

28. What is produced from 75-80% of the energy used in the horse's body?

A: Heat
SOURCE: LEWIS 2nd (199)

29. To ensure the security of a new shoe, the horseshoe nail should exit the hoof how far above the old nail hole?

A: 3/8 inches

SOURCE: AYHC 1st (535-5)

30. Name the hardest working joint in the horse's body?

A: Hock joint

SOURCE: EVANS 2nd (154)

31. Where on a horse would you look for a heave line?

A: Along the abdominal muscles from the middle of the flank running forward and down the rib cage to the point of the elbow

SOURCE: LEWIS 2nd (292)

32. 2 part question: What is the average speed for a horse at the trot and what is the average speed at which Standardbreds trot?

A: 8 miles per hour, 30 miles per hour

SOURCE: GRIFFITHS (72)

END OF ROUND NINE

**2015 NC 4-H Horse Program State Horse Bowl Contest
Mixed Division
Extra Questions**

1. **An abnormality that does not affect the intended use or performance of a horse is called what?**
A: Blemish
SOURCE: AYHC 1st (230-1)
2. **What substance is applied to horseshoes to increase their gripping properties on ice?**
A: Borium
SOURCE: EVANS 2nd (738)
3. **Name the tubular structure in the center of the tooth that can trap feed, leading to tooth infection.**
A: Infundibula
SOURCE: AYHC 1st (405-3)
4. **What type of shoe distributes weight from the hoof wall to the frog temporarily while the wall area is healing?**
A: Heart bar
SOURCE: AYHC 1st (515-4)
5. **What breed of horse was the famous stallion, Three Bars?**
A: Thoroughbred
SOURCE: NEWHOR (267)
6. **The white facial marking called a 'race' consists of what three common markings?**
A: Star, strip, and snip
SOURCE: NEWHOR (177)
7. **What is the common name for suture repair of a wound?**
A: Stitches
SOURCE: AYHC 1st (440-3)
8. **What allows the horse to sleep in a standing position without falling over?**
A: Stay mechanism
SOURCE: EVANS 2nd (708)
9. **What is parturition?**
A: The act of giving birth
SOURCE: LEWIS 2nd (399)
10. **What are the stirrups on an English saddle called?**
A: Irons
SOURCE: NEWHOR (155)

11. **What is the term for grasping food with tongue or lips for ingestion?**
A: Prehension
SOURCE: LEWIS 2nd (400)
12. **Name one of the most common tumors found in old horses.**
A: Thyroid or pituitary adenomas
SOURCE: LEWIS 2nd (191)
13. **What is the age range for a junior horse in performance classes?**
A: Five years of age or younger
SOURCE: NEWHOR (159)
14. **In the mare, what structure produces prostaglandin F₂α (F₂ alpha)?**
A: Uterus
SOURCE: LEWIS 2nd (236); EVANS 2nd (127)
15. **A very dark brown chestnut is also referred to as what color?**
A: Liver chestnut
SOURCE: EVANS 2nd (color pages between 496-497)
16. **All Thoroughbred racehorses have a permanent ID. Where would an owner look to see it?**
A: Inside of the upper lip
SOURCE: EVANS 2nd (809)
17. **What term is used to describe a horse with ears positioned too far to the side of the head?**
A: Lop eared
SOURCE: AYHC 1st (220-3)
18. **Beta-carotene is a precursor to which vitamin?**
A: Vitamin A
SOURCE: LEWIS 2nd (46)
19. **Where on a horse's body is a weight tape applied to estimate weight?**
A: Around the heart girth
SOURCE: LEWIS 2nd (119)
20. **What are the two different forms of melanin?**
A: Pheomelanin and eumelanin
SOURCE: GRIFFITHS (93)
21. **Name a disease caused by a rickettsial infection.**
A: Equine ehrlichiosis or Potomac Horse Fever
SOURCE: GRIFFITHS (175)
22. **What is the outermost membrane of the placenta?**
A: Chorion
SOURCE: EVANS 2nd (340)

- 23. Which hormone in the mare stimulates follicular development? This includes the growth of ovarian follicles and the production of estrogenic substances.**
A: Follicle stimulating hormone or FSH
SOURCE: EVANS 2nd (337)
- 24. Cachexia is a term meaning what?**
A: Wasting and malnutrition
SOURCE: NEWHOR (45)
- 25. What structure separates the vagina proper from the vestibulum vaginae?**
A: Hymen
SOURCE: EVANS 2nd (321)

2015 NC 4-H Horse Program State Horse Bowl Contest
Mixed Division
Extra Bonus Questions

- 1. Name the five (5) spinal column segments in order beginning at the horse's cranium.**

A: 1. Cervical
 2. Thoracic
 3. Lumbar
 4. Sacral
 5. Caudal or Coccygeal

SOURCE: EVANS 2nd (96)

- 2. Name four (4) materials that a bit may be made of.**

A: 1. Stainless Steel
 2. German silver
 3. Nickel
 4. Copper
 5. Aluminum
 6. Rubber
 7. Vulcanite rubber
 8. Happy mouth rubber

SOURCE: AHYHC 1st (1100-10)

- 3. Name the breed that is identified with the following five (5) nicknames or identifications:**

- 1. Peacock of the horse world**
- 2. Prince of ponies**
- 3. Breed of blacks and grays**
- 4. Palouse horse**
- 5. Aristocrat of the show ring**

A: 1. American Saddlebred
 2. Hackney Pony
 3. Percheron
 4. Appaloosa
 5. Hackney (horse not pony)

SOURCE: EVANS 2nd (38, 61, 69), AYHC 1st (158-2, 170-1)

- 4. What four (4) bones form the stifle joint?**

A: 1. Femur
 2. Patella
 3. Tibia
 4. Fibula

SOURCE: EVANS 2nd (91), KAINER (6)