

2025 Senior Horse Bowl Questions

- The questions will not be in this order. The numbers next to each question are only to help identify each question. There will be 30 questions in each round.
- Any questions not used in 2025 will automatically roll into 2026.
- If you have questions or need clarification, email mrrussell@uada.edu with question.
- Recommended sources to find answers:
 - *New Horizons – Dictionary of Equine Terms*. By New Horizons Equine Education Center, Alpine Publications, Inc.
 - *Evans 2nd – The Horse (2nd Edition)* by Evans, Borton, Hintz, Van Vleck,
 - *Kainer – The Coloring Atlas of Horse Anatomy*. Dr. Robert Kainer and Dr. Thomas McCracken, Alpine Publications, Inc.
 - *AYHC 1st – Horse Industry Handbook*, by the American Youth Horse Council, American Youth Horse Council.
 - *AYHC Youth Leaders Manual* – by the American Youth Horse Council.
 - *Lewis 2nd – Feeding and Care of the Horse (2nd edition)*, by Lon D. Lewis, 456 pgs.
 - *State line tack catalog*
 - *National 4-H Horse Curriculum Books*:
 - Giddy up and Go
 - Head, Heart, and Hooves
 - Stable Relationships
 - Riding the Range
 - Jumping to new Heights

1. Fullering, web, and branch are parts of what horse equipment?
2. What is the difference between a Pelham and a Weymouth bridle?
3. What is an umbilical hernia?
4. What is the name for the flexible quirt that is attached to “California-style” reins?
5. What are founder rings?
6. Give two reasons molasses are added to grain mixes.
7. What gland secretes insulin?
8. Which part of the brain controls reproduction?
9. What is the most effective treatment for Recurrent Airway Obstruction?
10. The lowering of oxygen saturation of the arterial blood is called what?
11. Name 4 ways in which grains differ nutritionally.
12. In designing a deworming program, what time of year does research show little transmission occurs and deworming is not needed?
13. What is the proper name (genus and species) of the large internal parasite of the horse where larval migration can damage the liver and lungs, the adults live in the small intestine, and they primarily affect foals?
14. Name 4 protein supplements that are commonly fed to horses.
15. What are erythrocytes?
16. What are the functions of the larynx?
17. What do you call the first feces of the foal after birth?
18. What is another name for moon blindness?
19. What is the name of the anti-coagulant in moldy clover hay that can cause blood not to clot?

20. What is the most feasible, non-chemical means of breaking the fly life cycle?
21. Name the four chambers of the heart in order of how blood flows through these chambers beginning with body to heart, heart to lungs, lungs to heart, heart to body.
22. Simultaneously, blood enters the right atrium from the body and the left atrium from where?
23. In a horse how many pairs of ribs are true and how many are floating?
24. What is the term for the coal-tar based ointment that has a soothing drawing effect?
25. Bacterial degradation of animal waste forms two by-products that encourage algae blooms in streams and ponds. What are these two by-products?
26. What is the distinguishing characteristic of a Mullen mouthpiece?
27. Why do horses that “Tie-IP” sometimes have dark colored or coffee colored urine?
28. What part of the equine GI tract is found between the jejunum and the cecum?
29. What is a bony growth at the point where the cannon and hock attach?
30. Name the toxin found in blister beetles. It may be given as a diuretic and applied externally to produce blistering.
31. What parasite of the horse has both parasitic and free-living generations and affects primarily young foals?
32. What internal parts of the horse make up the central nervous system?
33. Give four advantages of a grass-legume pasture.
34. What does the term “respiratory frequency” refer to?
35. What are the three acceptable methods of euthanasia?
36. Name the artery that carries oxygen poor blood from the heart to the lungs?
37. In which organ would you find the cortex, medulla, loop of Henle, and glomerulus?

38. Give three symptoms of liver failure.
39. What are the two most common calculations used to evaluate the energy content of horse feeds?
40. The average size adult horse will ordinarily produce how many pounds of manure in one day?
41. What is the name for the process that breaks down carbohydrates, lipids and proteins into energy (ATP) with the involvement of oxygen?
42. What is the term for ossification of the lateral cartilages of the coffin bone that prevents normal expansion of the foot?
43. Name the equine disease that is characterized by a respiratory illness, peripheral edema, and abortion?
44. What is the general term for a drug that causes the air passages of the lungs to widen?
45. For what viral disease are horses and humans is considered a “dead-end” because both species have so few of these virus particles in their bloodstream following infection that they cannot pass it on to another mammal?
46. What amount (percentage) of dry forage should a horse consume daily?
47. SCID is a genetic disease that is associated with the Arabian breed. What does SCID stand for?
48. What is the swelling of the tarsocrural joint capsule called?
49. What is an “obligate parasite”?
50. What are the bird catcher spots?
51. Why should you use a tighter curb chain on a half-breed or spade bit?

52. Name the species of parasite that have vestigial (non-working) mouth parts as adults and feed only in their larval stage, on blood and tissues of the horse's stomach and duodenum.
53. What is the term for the time between the occurrences of infection and the onset of clinical signs?
54. Name one function that sodium, potassium, and chloride are essential for.
55. What events mark the end of each of the three stages of parturition in the mare?
56. What is the difference between true and false ribs?
57. Name the mineral needed for blood coagulation?
58. What event normally occurs 24-48 hours prior to the end of the estrus cycle?
59. What is the "first milk" a colt receives called?
60. What animal is known for a dorsal stripe running from mane to tail that is intersected by the arms of cross at the withers?
61. Which part of the brain controls the coordination of movement?
62. Name the five regions of the spinal column.
63. Name the three permanent incisors and the age that they appear.
64. Approximately what percent of total body calcium is contained in the skeleton and teeth?
65. What is the name for the part of the horseshoe nail that prevents the nail from pulling through the shoe?
66. What is interdental space?
67. Name 2 methods of restraining a horse.
68. What is the foot fall sequence for the running walk, starting with the left front foot?
69. Osteoblasts form a protein matrix that ultimately forms what tissue?

70. The sidebone is the complete ossification of the cartilage of which bone?
71. Name two structures of the horse's forelimb that are directly affected by navicular disease.
72. What is a cloudy, opaque appearance of the eye called?
73. What is the foundation of any horse ration?
74. Temperature and humidity play an important part in a horse's ability to cool itself. Under what conditions is the horse's cooling ability significantly reduced to the point where it can be fatal if the horse is stressed?
75. What is the responsibility of the urinary system?
76. What chamber of the heart is the primary pumping chamber for moving oxygenated blood to the body?
77. Name three causes of foal diarrhea.
78. Name two conditions that base narrow horses tend to develop due to their way-of-going.
79. What is pulmonary hemorrhage?
80. What is the scientific study of how characteristics are passed from parent to offspring?
81. Give another name for the oviducts.
82. How many bones form the basis of locomotion in the horse?
83. Name the four classifications of bones in the horse.
84. What is the function of the pancreas?
85. Why should you not use black walnut shavings in your horse's stall?
86. Which organ in the digestive system is responsible for the horse's gut sounds.
87. Name the protozoal disease that causes anemia and is vectored by tropical ticks.
88. What breed of the horse is noted for having Hyperkalemic Periodic Paralysis?

89. What is the name for the unsoundness where the bursa at the top of the horse's head becomes infected?
90. Name four functions of the American Horse Show Association.
91. What hormone is responsible for milk let-down and contractions during parturition?
92. When referring to the process of a disease, what does acute mean?
93. Where is the bacterium *Clostridium Tetani* commonly found, and how is it transmitted to the horse?
94. What are the four stages of a fly's life cycle?
95. What is the disorder that is associated with dysfunctions of the larynx causing roaring?
96. Explain the difference between Tetanus Toxoid shot and Tetanus Antitoxin.
97. What is the primary sign of iron deficiency?
98. What is the function of the white blood cells?
99. The ovary is responsible for the production of which two female hormones?
100. What are the long, slender thread-like structures that are paired and contain genetic material?
101. Why is the hoof wall harder at the toe than at the quarters?
102. Gene pairs that are not identical are called what?
103. What is the common name for *parascaris equorum*?
104. Name the two hormones released by the pituitary gland to regulate the estrous cycle.
105. Horses have how many pairs of chromosomes?
106. List 5 signs of colic.
107. What are the two most important aspects of ideal conformation of the forelimbs?

108. What type of saddle places the rider well behind the withers and just behind the “center” of the horses?
109. Equine sweat is hypertonic, what is this?
110. Where in the horse’s body is insulin produced?
111. The meninges are three membranes covering what two neurological structures?
112. What type of bone fracture breaks the skin?
113. Strongyles are the most common internal parasite of horses today. What is the infective stage of the Strongyle?
114. What is the proper anatomical name for the three bones of the horses that are found between the hock and the fetlock joints?
115. What is the general term for the bacteria and other microorganisms that normally reside in the large intestine?
116. Where are the intercostal muscles located?
117. Name 3 different hay/forage types.
118. What is the term of the inflammation and thickening of the long plantar ligament? It may be caused by faulty conformation or by repeated blows.
119. What are the threadlike structures that appear in pairs or twins in body cells?
120. Name 5 conformational defects whose common name refers to another species of animal.
121. What are the functional units of the lung where gas exchange occurs?
122. What piece of equipment does the farrier use to pull nails from creased or fullered shoes?
123. What bacterium is usually present in the affected tissues of the hoof?
124. Define the “stride stance phase” of a horse’s gait.
125. What is the best way to control hemorrhage?

126. What type of martingale allows the rider to always maintain contact with the bit?
127. What is a displaced patella of the stifle joint called?
128. Name four causes for hyperthermia.
129. Name 4 types of colic.
130. What term is used to describe the failure of the immune system to form?
131. What is caused by *Streptococcus equi* infection?
132. 2-part question. What are lymphocytes and what is their function?
133. Located beneath the ear, what is the largest of the horse's three salivary glands?
134. What is meant by parturition?
135. How many pairs of chromosomes are responsible for the sex of a foal?
136. What is a spasm?
137. Why are the sensitive structures of a horse's hoof called sensitive?
138. What is the general term for the accumulation of excess fluid in the tissues under the skin causing a diffuse swelling of the area?
139. What is the average hoof growth rate for all horses (per month)?
140. Give two reasons for putting a hot poultice on a horse?
141. What is a sweet itch?
142. Polysaccharide Storage Myopathy or PSSM common in heavily muscled breeds, is likely caused by the abnormal storage of what compound within muscle?
143. Excessive intake of what vitamin causes calcification of lungs, heart, kidneys, and other organs?
144. What is a sarcoid?
145. What determines the amount of energy required by a muscle?

146. In what part of the horse's digestive tract are soluble carbohydrates digested to simple sugars?
147. What is meant by the term "silent heat"?
148. What two parts of the horse does the deep digital flexor tendon connect?
149. Name the three major parts of the cardiovascular system of the horse.
150. Name four of the seven joints in the pelvic limbs.
151. A normal keg shoe has four nail holes on each side. What term is applied to the second and third holes (what are these holes usually called)?
152. Explain the difference between a Bog Spavin and a Jack Spavin.
153. What notable person said, "The outside of the horse is good for the inside of man?"
154. Grains are processed in many ways. What benefit does steam rolling oats have over dry rolling?
155. What are the two primary hormones the horse's adrenal glands release?
156. What is the average length of the estrous cycle in the mare?
157. Name 4 things that induce a higher rate of hoof growth.
158. What do we call the concave side of the ovary that gives it a "kidney bean" shape?
159. What is another name for chronic obstructive pulmonary disease?
160. During what stage of the mare's estrous cycle is the mare receptive to the stallion?
161. What are the units of inheritance called?
162. What endocrine gland regulates the basic metabolism?
163. An accumulation of fluid in the alveoli from an infectious pulmonary problem would be termed what?
164. Name three types of negative reinforcements in training horses.

165. Define the term seasonally polyestrous.
166. What is the name for the oral vice in which a horse sticks its tongue out the side of the mouth for periods of time?
167. What does net energy refer to?
168. Name the Genus of the living members of the horse family.
169. What is necrosis?
170. Perlino is a double dilution of which basic body color?
171. What is the product of a stallion and a jenny called?
172. Muscles that oppose each other and limit movement are referred to as what type of muscle?
173. What does the term “passive transfer of immunity” mean?
174. Name the three main categories of plant toxins that cause sudden death?
175. What disease is characterized by an excessive breathing noise usually heard during exercise caused by an upper airway obstruction?
176. What is a bowed tendon, and where is it most found?
177. Name 5 ways forage can be processed for a horse to eat.
178. What metal alloy can be used for horseshoes that maintains the light weight of aluminum, but has the durability of steel?
179. What muscle is responsible for the skin moving and the shaking of flies off the horse?
180. What is the normal gestation of a mare?
181. What is the spasmodic muscle contraction that produces heat to help maintain body temperature?
182. White muscle disease in young foals is caused by a deficiency of what trace nutrient?

183. In reference to a wound, what is granulation?
184. What is the common name for Equine Spinal Ataxia?
185. Sometimes called the “funny bone”, spell the name of the bone extending from the shoulder to the elbow.
186. What is the term for the colorless liquid surrounding the fetus?
187. What conformation defect places greater strain on the medial small metacarpal bone, often leading to splints?
188. What is a non-infectious disorder of the central nervous system in newborn foals?
189. What is an abscess?
190. What is blood spavin?
191. What is the name of the bend in the large intestine which connects the left ventral colon to the left dorsal colon?
192. What is the function of insulin?
193. What is currently the only surviving species of wild horse native to Eastern Asia?
194. Streptococcus Equi was first described in 1988 as the bacteria causing what disease?
195. What hormone is produced in the anterior pituitary and is responsible for initiating lactation in the mare?
196. What hoof disease is commonly a result of owner neglect and dirty wet living conditions for the horse?
197. 2-part question. What is another name for the placenta and what is its purpose?
198. What is the production of milk called?
199. How much more nutrient dense is digested fat compared to digested protein or carbohydrate in terms of energy?

200. What conformation defect is predisposed to carpal chip fractures, especially in young racehorses?
201. What body condition score would you assign a horse with an obvious crease down his back, patchy fat appearing over ribs, and bulging fat around tailhead?
202. What cattle feed additive is highly toxic to horses?
203. What is the expected ratio of roan to solid-colored foals, if a roan stallion is bred to a roan mare?
204. What is passive transfer of immunity?
205. Why is “balance” the single most important characteristic in equine selections?
206. Which vice is characterized by biting or setting the teeth against the fence or some other object while sucking air?
207. What is the term for red blood cells?
208. To eliminate parasite problems from your horse, all your parasite control procedures are directed to accomplishing what key event?
209. What is Banamine and what is it used for? Try to be specific.
210. 2-part question. Grass-hays can be divided into two different types. What are the types and give two examples of each?
211. (Two-part) What are the two major components of blood?
212. 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?
213. What is the effect of placing a blanket on a horse with a winter coat?
214. List four ways grain can be processed for horse feed.
215. In inches, how fast does the hoof wall grow per month?

216. What is the coronary cushion?
217. The coronary cushion is the elastic portion of what structure of the hoof?
218. What disease is characterized by swollen or abscessed lymph glands, particularly those under or behind the jaws?
219. Where is the white line located on the horse's foot?
220. What is the primary portal for infection in the newborn foal?
221. Prolonged consumption of plants that contain oxalate may cause the deficiency of what mineral to develop?
222. From distal to proximal, list the six joints of the front leg.
223. Give four areas of the horse that may be observed for body fat.
224. Two-part question. How can you visually appraise plant maturity of grass and legume hays?
225. What is the term for a procedure using local anesthesia that is used to diagnose a site of pain?
226. What system produces chemical substances called hormones?
227. What part of the body does encephalomyelitis affect?
228. What is the syringe-like device used for giving large pills to a horse called?
229. Name four basic styles of English girths.
230. What gland secretes insulin?
231. How, what year, and why was the Cooperative Extension Service established?
232. What is the term for a bacterial infection of the udder?
233. Name three systems for the horse's body that use smooth muscles?
234. Name three functions of the alimentary canal.

235. Name two systems of the horse that use smooth muscles.
236. Identify this horse coat color: the body color is yellowish or gold; with the mane and tail being mixed yellow, white, black, brown, or red. This color horse usually has a dorsal stripe, zebra stripes on the legs and transverse stripe over the withers.
237. Where is the small intestine located in the horse?
238. Inflammation on the fluid-filled bursal sac that is located between the thoracic vertebrae and the nuchal ligament of the neck is called what?
239. What part of the horse's foot provides traction and absorbs shock?
240. Give three functions of the horse's kidneys.
241. What do you call a class of forages that must be re-planted each year?
242. What is the name for the tendon which acts to straighten a joint?
243. Name three paths of physiological water loss from a horse's body.
244. What is a common term for diarrhea, usually found in foals that have many different specific and non-specific causes?
245. The production of energy in the muscles via the glycolytic pathway yields what end product?
246. What important protein does colostrum contain?
247. What is the name of the fatal genetic disorder of Quarter Horse foals where glycogen storage is disrupted (different from polysaccharide storage myopathy)?
248. Exercise involves the conversion of chemical energy to what type of energy?
249. A horse that shows increased musculature along the costal arch most likely has what condition?
250. The "1st digital phalanx" is just below what bone.