

2012 NC State 4-H Hippology Contest
SENIOR DIVISION

Test 1

51. Russian knapweed will cause what disease in the horse?
A. Encephalomyelitis
B. Laminitis
C. Nigropallidal encephalomalacia
D. SCID
52. At what age do the permanent corner incisors erupt?
A. 1.5 years
B. 2.5 years
C. 3.5 years
D. 4.5 years
53. What enzyme is produced in the fundus of the stomach and helps break down proteins?
A. Amylase
B. Lipase
C. Pepsin
D. Protease
54. What is the general term for markings such as a dorsal stripe, cobwebbing on the forehead, zebra stripes on the legs and a wither stripe or shadowing?
A. Dun marking
B. Mustang markings
C. Primitive markings
D. None of the above
55. Which of these feeds is highest in starch?
A. Beet pulp
B. Corn
C. Cool Season Grass Hay
D. Alfalfa Hay
56. What is the term used for a gene that has the ability to mask the genetic makeup of the other gene in an allele pair?
A. Co-dominant
B. Dominant
C. Homozygous
D. Partial-dominant
57. What does the term teratogenic mean?
A. Compounds that cause brain damage in young horses
B. Compounds that cause physical defects in the fetus
C. Compounds that cause physical defects in old horses
D. Compounds that cause brain damage in geriatric horses

58. In equine nutrition, what are NDF and ADF a measure of?
- A. Fat
 - B. Protein
 - C. Fiber**
 - D. Minerals
59. What is bradycardia?
- A. Abnormally fast heart rate
 - B. Abnormally slow heart rate**
 - C. Cardiac insufficiency
 - D. Enlarged heart
60. What is the definitive host for the protozoa *Sarcocystis neurona*?
- A. Bat
 - B. Opossum**
 - C. Raccoon
 - D. Skunk
61. The inflammation of the bursa located between the thoracic vertebrae and the nuchal ligament of the neck is called?
- A. Brucellosis
 - B. Fistulous withers**
 - C. Thoracitis
 - D. Scoliosis
62. Leydig cells are responsible for the production of what two hormones?
- A. Aldosterone and Estrogen
 - B. Estrogen and Progesterone
 - C. Testosterone and Estrogen**
 - D. Testosterone and Aldosterone
63. The brachial plexus is the origin for nerves in what area of the body?
- A. Abdomen
 - B. Facial nerves
 - C. Forelegs**
 - D. Hindlegs
64. In breeding contracts, what does the statement “live foal” describe?
- A. A foal that is alive
 - B. A foal that stands and nurses**
 - C. A foal that was born alive
 - D. A foal that was born alive and died short thereafter
65. What is considered the **most** important factor when evaluating the quality of a forage at the time of harvest?
- A. Quantity of weeds present
 - B. Rainfall during growth
 - C. Stage of maturity**
 - D. Type of forage

66. What is the **primary** vector for the equine disease caused by the bacteria *Borrelia burgdorferi*?
- A. Horse flies
 - B. Lice
 - C. Mosquitoes
 - D. Ticks**
67. The proximal and distal sesamoid bones serve as pulleys to change the direction of which specific tendon?
- A. Common digital extensor
 - B. Deep digital flexor**
 - C. Lateral digital extension
 - D. Superficial digital flexos
68. What is the common term for aerophagia?
- A. Heaves
 - B. Roaring
 - C. Windsucking**
 - D. None of the above
69. What is another name for urticaria?
- A. Alopecia
 - B. Atopia
 - C. Heaves
 - D. Hives**
70. Which one of these is a fat-soluble vitamin?
- A. Vitamin C
 - B. Vitamin D**
 - C. Riboflavin
 - D. Biotin
71. Which of these plants is toxic to horses?
- A. Bahia grass
 - B. Johnson grass**
 - C. Ladino clover
 - D. None of the above
72. Which of these nutrients is the best source of energy?
- A. Carbohydrates**
 - B. Protein
 - C. Vitamins
 - D. Water
73. The vertebrae would be examples of what classification of bones?
- A. Flat bones
 - B. Irregular bones**
 - C. Long Bones
 - D. Short bones

74. Where is the primary site of fiber digestion in horses?
A. Stomach
B. Small Intestine
C. Pancreas
D. Large Intestine
75. Which of these is NOT a Volatile Fatty Acid (VFA)?
A. Urea
B. Acetate
C. Propionate
D. Butyrate
76. What breed of horse is primarily affected by the genetic lethal Combined Immunodeficiency Disease?
A. Arabian
B. Belgian
C. Lusitano
D. Paint horse
77. How many incisors does the adult horse have in the upper jaw?
A. 3
B. 4
C. 5
D. 6
78. What is the common term for laryngeal hemiplegia?
A. Bronchitis
B. Roaring
C. Windsucking
D. Heaves
79. At what age do the 1st premolars erupt?
A. 1 month
B. 6 months
C. 1 years
D. 3 years
80. Larking refers to unnecessarily jumping fences when participating in what equine activity?
A. Foxhunting
B. Hunter hack
C. Hunter show
D. Show jumping
81. The parotid gland is located where?
A. Below the ear
B. Between the jaws
C. Underneath the tongue
D. None of the above

82. How many teeth does a female horse have?
A. 20 to 22
B. 30 or 32
C. 36 or 38
D. 40 or 42
83. The endocrine system uses _____ to effect target tissues.
A. Hormones
B. Blood
C. Plasma
D. Enzymes
84. What muscle is used by the horse for shaking off flies?
A. Panniculus
B. Paduncilis
C. Pectineus
D. None of the above
85. Which gland controls the pituitary?
A. Pineal
B. Thyroid
C. Parathyroid
D. Hypothalamus
86. What sex-linked disease results in a deficiency of clotting factor VIII (clotting factor 8)?
A. Hemophilia
B. SCID
C. Lethal white
D. None of the above
87. What is the target tissue of vasopressin?
A. Thyroid Gland
B. Blood Vessels
C. Ovary
D. Bone
88. What mineral is necessary for proper function of the thyroid gland?
A. Iodine
B. Iron
C. Nitrogen
D. Thiamine
89. Which hormone activates the “fight or flight mechanism?”
A. Epinephrine
B. Melatonin
C. Vasopressin
D. None of the above

90. The adrenal cortex is located near the _____.
- A. Heart
 - B. Brain
 - C. Kidneys**
 - D. Testes
91. Which is NOT a major endocrine organ?
- A. Pancreas
 - B. Testes
 - C. Ovary
 - D. None of the above**
92. Movement of air into and out of the lungs is called?
- A. Circulation
 - B. Respiration**
 - C. Aspiration
 - D. None of the above
93. What is the normal breathing rate for horses at rest?
- A. 2 to 6 times per minute
 - B. 8 to 16 times per minute**
 - C. 20 to 30 times per minute
 - D. 40 to 60 times per minute
94. What prevents food from entering the larynx?
- A. Hard palate
 - B. Dorsal meatus
 - C. Trachea
 - D. Epiglottis**
95. What is another name for red blood cells?
- A. Albumin
 - B. Erythrocytes**
 - C. Monocytes
 - D. Thrombocytes
96. The amount of air inspired and expired during each breathing cycle is known as?
- A. Tidal Volume**
 - B. Vital Capacity
 - C. Residual Volume
 - D. Lung Capacity
97. What is the approximate blood volume of a horse?
- A. 2 to 4% of body weight
 - B. 6 to 8% of body weight
 - C. 12 to 14% of body weight**
 - D. 30 to 32% of body weight

98. What is the gait described as the fast, four beat lateral gait characteristic of Tennessee Walking Horses?
- A. Rack
 - B. Slow Gait
 - C. Running Walk**
 - D. Stepping Pace
99. What is the *minimum* recommended stocking rate for horses on pasture?
- A. 0.5 acre per horse
 - B. 1 acre per horse
 - C. 2 acres per horse**
 - D. 4 acres per horse
100. What type of wood shavings are NOT recommended for horses?
- A. Black Walnut**
 - B. Wild Cherry
 - C. Red Maple
 - D. Black Locust

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Test 2

101. What is the average amount of manure produced by a horse per day?
A. 5 to 10 lbs
B. 10 to 15 lbs
C. 20 to 30 lbs
D. 40 to 50 lbs
102. What is the average seeding rate of cool season grasses?
A. 1 to 2 lbs per acre
B. 6 to 8 lbs per acre
C. 20 to 22 lbs per acre
D. 48 to 50 lbs per acre
103. What is the minimum height for perimeter fencing for horses (not including stallions)?
A. 3 ft
B. 4 ft
C. 5ft
D. 6 ft
104. What is the most common width of boards used in constructing fences for horses?
A. 3 to 4 inches
B. 6 to 8 inches
C. 9 to 11 inches
D. 12 to 14 inches
105. How many strands of high tensile wire are recommended for horse fencing?
A. 2 to 3
B. 5 to 6
C. 10 to 12
D. 18 to 20
106. What is the *minimum* amount of space needed per horse for a run in shed?
A. 25 ft
B. 50 ft
C. 75 ft
D. 125 ft
107. In training horses, what type of stimulus is learned by practice?
A. Conditioned
B. Unconditioned
C. Natural
D. Responsive

108. Which of these is NOT a type of negative reinforcement?
- A. Punishment
 - B. Escape
 - C. Reward**
 - D. Avoidance
109. What type of behavior includes the giving of care and attention between mare and foal?
- A. Sexual
 - B. Epimeletic**
 - C. Et-Epimeletic
 - D. Allelomimetic
110. What is the term for the social or sexual response of a horse curling the upper lip with the head elevated in response to a smell?
- A. Fleshman Response
 - B. Flehmen Response**
 - C. Peripheral Response
 - D. Leydig Response
111. What is the most important characteristic in judging conformation?
- A. Quality
 - B. Balance**
 - C. Height
 - D. Muscling
112. Which of these is a conformation fault of the front legs?
- A. Camped Under**
 - B. Post legged
 - C. Bowed tendon
 - D. Bone Spavin
113. Which of these is NOT a conformation fault of the hind legs?
- A. Post legged
 - B. Sickie-hocked
 - C. Cow hocked
 - D. None of the above**
114. What undesirable movement is the result of a horse that is toed-out?
- A. Winging**
 - B. Paddling
 - C. Surfing
 - D. Forging
115. What is the term for cannon bones that are not centered in the knee, or offset, when viewed from the front?
- A. Calf-kneed
 - B. Bandy legged
 - C. Buck-kneed
 - D. Bench-kneed**

116. The calcification or bony growth that occurs on the inside of the cannon bone is commonly referred to as what?
- A. Spavin
 - B. Splint**
 - C. Thoroughpin
 - D. Curb
117. Which of these is NOT an Appaloosa coat pattern?
- A. Blanket
 - B. Leopard
 - C. Few-spot
 - D. Overo**
118. What is the term for a light blue iris resulting from lack of brown pigment?
- A. Wall-eye**
 - B. Mottled-eye
 - C. Blind-eye
 - D. White-eye
119. What are the dark spots on a white coronet band called?
- A. Mottling
 - B. Distal spots**
 - C. Caudal spots
 - D. None of the above
120. A red roan occurs with what color base coat?
- A. Black
 - B. Bay**
 - C. Chestnut
 - D. Sorrel
121. Which is NOT a type of overo coat pattern?
- A. Medicine Hat**
 - B. Frame
 - C. Sabino
 - C. Splashed white
122. The _____ plane separates the horse into equal left and right parts.
- A. transverse
 - B. sagittal
 - C. median**
 - D. dorsal
123. What is the abbreviation PHBA stand for?
- A. Paint Horse Breeders of America
 - B. Palomino Horse Breeders of America**
 - C. Pinto Horse Breeders Association
 - D. Peruvian Horse Breeders Association

124. In modern cutting competitions, how long does the rider have to demonstrate their ability to cut the cattle from the herd?
- A. 60 seconds
 - B. 1 minute and 30 seconds
 - C. 2 minutes and 30 seconds**
 - D. 5 minutes and 30 seconds
125. In reining competition, each horse automatically begins with a score of ____?
- A. 0
 - B. 60
 - C. 70**
 - D. 100
126. Which if the following would result in elimination from an equitation over fences class?
- A. 2 faults
 - B. 4 faults
 - C. Second refusal
 - D. Third refusal**
127. Which of the following does **not** describe an animal in the order perissodactyla:
- A. odd toed
 - B. non-ruminating
 - C. hoofed
 - D. even toed**
128. A horse trailer should be at least ____ inches higher than the horse's head at resting position.
- A. 2
 - B. 4
 - C. 6
 - D. 10**
129. What type of bit has a soft, apple flavored rubber mouthpiece?
- A. Sweet Mouth
 - B. Happy Mouth**
 - C. German Mouth
 - D. Apple Mouth
130. What type of equipment consists of a bosal noseband attached to the headstall and is sometimes used for training young horses?
- A. Jaquima**
 - B. Hackamore Bit
 - C. Western Curb
 - D. None of the above
131. Which discipline would NOT use a Weymouth bridle?
- A. Saddle Seat
 - B. Dressage
 - C. Hunters
 - D. Reining**

132. What type of competition consists of races from 50 to 100 miles?
A. Marathon
B. Endurance
C. Cross Country
D. Combined Training
133. What is another term for western reins that are closed and connected with a flexible quirt sometimes called a “romal”?
A. California reins
B. Texas reins
C. Vaquero reins
D. Oklahoma reins
134. What is the purpose of adding shanks to a mouthpiece?
A. Direct pressure
B. Leverage
C. To prevent fidgeting
D. Evasion
135. What is the maximum height of ponies?
A. 12.2 hands
B. 13.2 hands
C. 14.2 hands
D. 15.2 hands
136. A wooden device that placed around the neck to prevent horses from reaching their bandages is called a _____?
A. Neck Cradle
B. Neck Gaurd
C. Neck Strap
D. Neck Cone
137. When harvesting wet hay, what preservative can be applied to inhibit fermentation?
A. Buteric acid
B. Proprionic acid
C. Acetic acid
D. Ascorbic acid
138. Symptoms of Wobbler’s Syndrome includes:
A. Uncoordinated gait
B. Wide based stance
C. Spasticity
D. All of the above
139. Which muscles reduce the protrusion of the anus during defecation?
A. Dorsal sacrocaudal muscles
B. Anal sphincter muscles
C. Coccygeus muscles
D. Anal levator muscles

140. Major contributors to developmental orthopedic disease in growing horses include?
- A. **Rapid growth, trauma to growth plate, poor nutrition**
 - B. Rapid growth, poor nutrition, bone cysts
 - C. Genetic predisposition, shoes, exercise
 - D. Protein imbalance, exercise, trauma to growth plates
141. Which of the following amounts are important when preparing a mare's milk substitute for an orphan foal?
- A. Low milk fat
 - B. High lactose
 - C. Volume of replacer
 - D. **All of the above**
142. This product is the result of the breakdown of muscle creatine which is then excreted in the urine.
- A. Urea
 - B. Amino acids
 - C. **Creatinine**
 - D. Nitrogen
143. A very typical symptom of this unsoundness is chronic, intermittent lameness.
- A. Abscess
 - B. Quicking disease
 - C. Green splint
 - D. **Navicular disease**
144. What type of shoe is most commonly used on an acute laminitic horse?
- A. Rocker toe shoe
 - B. Weighted shoe
 - C. Toe clip shoe
 - D. **Full support**
145. Which of these would cause shunting of the blood from dermal laminae?
- A. Circulation of endotoxins
 - B. Hard concussion on the foot
 - C. Grain overload
 - D. **All of the above**
146. Which pesticide inhibits egg hatching and larval development?
- A. Fungicides
 - B. Botanicals
 - C. **Insect growth regulators**
 - D. Insecticides

147. Which of the following is described by forehand moves around the haunches in a small circle with a radius equal to the length of the horse?

- A. Levade
- B. Pirouette**
- C. Piaffe
- D. Passage

148. Which of the following is a formal four wheeled covered carriage with two facing seats and a seat outside for the coachman?

- A. Landau carriage
- B. Berlin carriage**
- C. Phaeton carriage
- D. Whisky carriage

149. When selecting potential breeding mates which of the following is NOT an important factor in the mating:

- A. principle of genetics
- B. heritability
- C. relationships of potential mates
- D. variability among genes**

150. The skeletal system of the horse functions as:

- A. levers, stores minerals, blood cell formation**
- B. levers, protects organs, regulates sodium levels
- C. provides framework for muscles, protects organs, and filters fluid
- D. stores minerals and releases hormones for growth