

2016 North Carolina State 4-H Hippology Contest (200 points = 2 pts/question)

Senior Division Exam

Name \_\_\_\_\_ Contestant ID # \_\_\_\_\_

**Directions:** Please bubble your answers on your scantron sheet (starting with #51). You may write on this test, but it must be turned in with your completed scantron.

**Multiple Choice Section**

51. What is the name of the membrane that covers the outside of muscles?  
 A. Tendons                      **B. Fascia**                      C. Peritoneum                      D. Cartilage
52. The most important muscle responsible for respiration is:  
**A. Diaphragm**                      C. Lungs  
 B. Intercostal muscles                      D. Abdominal muscles
53. Which of the following is not recognized as a color of a registered Arabian horse?  
 A. Bay                      B. Brown                      C. Chestnut                      **D. White**
54. What is the term for an infection transmissible, under natural conditions, from animals to humans?  
 A. Pandemic                      B. Epidemic                      C. Transinosis                      **D. Zoonosis**
55. Which of these fills the cavities of bones?  
 A. Bile                      B. Blood                      **C. Marrow**                      D. Melanin
56. Which is a macromineral?  
 A. Zinc                      B. Selenium                      **C. Calcium**                      D. Magnesium
57. Which of these describes the paso, the natural gait of both the Paso Fino and the Peruvian Paso?  
 A. Two-beat lateral gait                      **C. Four-beat lateral gait**  
 B. Two-beat diagonal gait                      D. Four-beat diagonal gait
58. Which of the following criteria for semen evaluation evaluates the shape of the sperm cells?  
 A. Concentration                      B. Motility                      **C. Morphology**                      D. Volume
59. Which of the following is **not** expected to happen within the first 3 hours of a foal's life?  
 A. It should stand                      C. It should nurse  
 B. It should pass the meconium                      **D. All should happen within 3 hours**
60. Which of the following is the function of the broad ligament?  
 A. Holds the scapula to the vertebral column                      **C. Suspends the uterus within the body cavity**  
 B. Is part of the bowstring effect                      D. Attaches the sacrum to the pelvis
61. Which of the following is the first step in treating an abscess?  
 A. Soak the area in Epsom salt                      **C. Open the affected area and allow it to drain**  
 B. Administer bute                      D. Antibiotics
62. Which of these identifies a voluntary type of muscle?  
 A. Cardiac                      B. Respiratory                      **C. Skeletal**                      D. Smooth
63. Which of these systems is responsible for the chemical control of the body?  
**A. Endocrine**                      B. Integumentary                      C. Muscular                      D. Reproductive

64. The disease characterized by muscle mass being broken down after strenuous exercise is:
- Azoturia
  - Tying up
  - Exertional rhabdomyolysis
  - All of the above
65. The endometrium is the muscosal lining of which organ?
- Epididymis
  - Vagina
  - Testicle
  - Uterus
66. Which of the following can negate an Equine Activity Liability law?
- The rider choosing to not wear a helmet
  - The stable owner only posting the sign at one location
  - Negligence by the horse owner
  - Workers that have less than one year of horse experience
67. Parrot mouth, or overshot jaw, is a conformation defect involving which bone?
- Maxilla
  - Mandible
  - Temporal bone
  - Scapula
68. An inflammation of the tarsal synovial membrane on the inside front portion of the joint causing a noticeable swelling is referred to as what?
- Bog spavin
  - Bone spavin
  - Thoroughpin
  - Road gall
69. Which is the primary means through which parasites are spread?
- Water
  - Manure
  - Soil
  - Feed
70. At which age do the permanent 1<sup>st</sup> premolars erupt?
- 1 to 2 months
  - 5 to 6 months
  - 1 to 2 years
  - 5 to 6 years
71. The correct equine vertebral formula is:
- $C_7T_{18}L_6S_5Ca_{15-21}$
  - $C_7T_{18}L_9S_5Ca_{15-21}$
  - $C_7T_{18}L_6S_8Ca_{15-21}$
  - $C_7T_{13}L_6S_5Ca_{15-21}$
72. Which is not a type of Buckskin or Dun horse?
- Grulla
  - Red dun
  - Gold dun
  - Brindle dun
73. Which is an example of an endocrine tissue?
- Pancreas
  - Testes
  - Salivary glands
  - Both A and B
74. What are Type IIB muscle fibers used for?
- Speed at longer distances
  - Short and very fast bursts of energy
  - Endurance
  - Trail riding
75. What term describes a horse with a stride that is short, quick, high, and often choppy?
- Springy
  - Trappy
  - Suspension
  - Elegant
76. What kind of worm can be passed to a foal from the mare thorough her milk supply?
- Strongyloides westeri*
  - Parascaris equorum*
  - Oxyuris equi*
  - Anoplocephala perfoliata*
77. When introducing new horses into a herd, biosecurity measures would include isolation the new horses for a minimum of how many days?
- 7 days
  - 10 days
  - 30 days
  - 14 days

78. What is applied to pastures to adjust the soil pH?  
A. Phosphorus      B. Lime      C. Potash      D. Nitrogen
79. Epinephrine is a very important hormone for the horse in stress situations and is produced by which organ?  
A. Pineal gland      B. Kidneys      C. Pituitary gland      D. Adrenal gland
80. How many chambers is the heart composed of?  
A. 2      B. 3      C. 4      D. 6
81. The periople is located:  
A. At the frog      B. Along the white line      C. Along the coronary band      D. Inside the sole
82. What is the term for a bit with a straight bar mouthpiece?  
A. Dr. Bristol      B. French link      C. Mullen mouth      D. Slow twist
83. Which type of cell is mainly responsible for spermatozoa development?  
A. Sertoli      B. Epithelial      C. Leydig      D. Ova
84. Which condition is the most common cause of abortions, stillbirths, and deaths of foals soon after birth?  
A. Septicemia      B. Infection      C. Suffocation      D. Influenza
85. Which of these plants are toxic to horses?  
A. Horsetail      B. Nightshade      C. Johnson grass      D. All of the above
86. The degree of flexion of the joints of the legs during movement is known as:  
A. Action      B. Flare      C. Engagement      D. Roll
87. The hip joint is an example of a \_\_\_\_\_ joint.  
A. Ball and socket      B. Hinge      C. Pivot      D. Plane
88. A heart rate of 45 to 60 beats per minute would indicate:  
A. Elevated heart rate for a newborn foal      B. Resting rate for an adult horse      C. Adult horse during exercise      D. Resting heart rate of a newborn foal
89. This disease is also known as Megacolon:  
A. Hemophilia      B. Lethal white foal syndrome      C. Severe combined immunodeficiency      D. Hyperkalemic periodic paralysis
90. Which type of hay is highest in calcium and protein?  
A. Mixed hay      B. Grass hay      C. Legume hay      D. Timothy hay
91. Which tendon runs over the distal sesamoid?  
A. Deep flexor tendon      B. Extensor tendon      C. Superficial sesamoidian tendon      D. Superficial flexor tendon
92. What is the minimum amount of forage required by a 1,000 pound horse?  
A. 5 to 10 pounds/day      B. 35 to 40 pounds/day      C. 15 to 20 pounds/day      D. 45 to 50 pounds/day

93. Which two bones come together to form the point of the shoulder?
- A. Humerus and radius
  - B. Radius and ulna
  - C. Carpus and scapula
  - D. Scapula and humerus
94. Where would you find the Purkinje fibers?
- A. In the eye
  - B. In the kidney
  - C. In the testicle
  - D. In the heart
95. Name the hardest working joint in the horse's body.
- A. Stifle
  - B. Hock
  - C. Shoulder
  - D. Sacroiliac
96. 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
97. Which is not one of the key reference points when conducting body condition scoring?
- A. Withers
  - B. Ribs
  - C. Tailhead
  - D. Abdomen
98. What is the best way to manage manure to prevent non-point source pollution?
- A. Composting
  - B. Pile on a slope
  - C. Place in landfill
  - D. Spread on pastures
99. Extensor muscles and tendons on the front legs do what?
- A. Flex the leg
  - B. Straighten the leg
  - C. Provide cushion for landing
  - D. None of the above
100. These endoparasites generally affect horses that are less than 1 year of age, as adult horses seem to develop immunity to these parasites as they get older:
- A. Small strongyles
  - B. Ascarids
  - C. Oxyuris
  - D. Habronema
101. What type of organs are the eyes, ears, and nose?
- A. Alimentary
  - B. Sensory
  - C. Digestive
  - D. Excretory
102. Where did the Connemara breed originate?
- A. England
  - B. Ireland
  - C. Scotland
  - D. Wales
103. What type of stall bedding would be a good choice for a horse with heaves or horse owners with allergies?
- A. Shredded newspaper
  - B. Chopped oats
  - C. Flax straw
  - D. Wood shavings
104. What is the term for the accumulation of excessive synovial fluid in the joint capsule of the fetlock?
- A. Fetlockitis
  - B. Bog spavin
  - C. Wind puffs
  - D. Sesamoiditis
105. The suspensory apparatus is important for holding which joint?
- A. Stifle
  - B. Hock
  - C. Coffin
  - D. Fetlock

106. Which part of the digestive tract has the largest capacity?  
 A. Colon B. Esophagus C. Small intestine D. Stomach
107. If a stallion that is heterozygous for a specific trait is bred to a mare that is also heterozygous for the same trait, what is the chance that the offspring will be homozygous?  
 A. 25% B. 50% C. 75% D. 0%
108. Which term describes the site on the ovary where ovulation occurs?  
 A. Ovulation spot C. Ovulation foramen  
 B. Ovulation divot D. Ovulation fossa
109. Which enzyme is produced in the fundus of the stomach and helps break down proteins?  
 A. Hydrochloric acid C. Lysine  
 B. Pepsin D. Amylase
110. Which of these happens at the end of the first stage of parturition?  
 A. The cervix dilates C. The first water bag breaks  
 B. The foal is expelled D. The mare walks the stall anxiously
111. Which of these matings would be most likely to result in a palomino foal?  
 A. Palomino x Palomino C. Palomino x Cremello  
 B. Chestnut x Palomino D. Chestnut x Cremello
112. Which of the following is not considered a nuisance habit?  
 A. Stall walking B. Pawing C. Cribbing D. Tail rubbing
113. What is another term for aerophagia?  
 A. Pneumovagina B. Heaves C. Windsucking D. Roaring
114. What is the third set of incisors called?  
 A. Cups B. Centrals C. Caps D. Corners
115. What does body condition scoring analyze?  
 A. Overall weight B. Fat deposition C. Muscle quality D. Aerobic fitness
116. Equine sweat is said to be hypertonic. What does this mean?  
 A. It contains sodium  
 B. It contains potassium  
 C. It can lead to muscle weakness with substantial sweat loss  
 D. All of the above
117. When a stimulus causes a horse to respond in a manner that has been taught through practice, it is called a:  
 A. Controlled stimulus C. Created stimulus  
 B. Conditioned stimulus D. Coordinated stimulus
118. Treatment for what external parasite includes ear nets and petroleum jelly in the ears?  
 A. Face flies C. Mosquitoes  
 B. Buffalo gnats D. None of the above

## Matching

Match the following parts of the digestive tract with their function.

- |                           |                         |
|---------------------------|-------------------------|
| 119. <u>B</u> Cecum       | A. Peristalsis          |
| 120. <u>C</u> Large colon | B. Fermentation         |
| 121. <u>D</u> Small colon | C. Water absorption     |
| 122. <u>A</u> Esophagus   | D. Fecal ball formation |
- 

Match the following drugs to their descriptions.

- |                              |   |
|------------------------------|---|
| 123. <u>B</u> Acepromazine   | A. A local anesthetic used to numb regions of the body for pain relief or surgical procedures   |
| 124. <u>C</u> Phenylbutazone | B. The trade name for a commonly used tranquilizer  |
| 125. <u>A</u> Lidocaine      | C. The generic name for an odorless, white, anti-inflammatory powder used in the treatment of joint, bone, and muscle injuries and disorders, as well as wounds |
| 126. <u>E</u> Digitalis      | D. A generic name of a steroidal anti-inflammatory agent often used to treat horses with allergies  |
| 127. <u>D</u> Prednisone     | E. A medication derived from the foxglove plant that is used to increase the strength of the heart contraction during heart failure                             |
- 

Match the following drugs to their descriptions.

- |                             |  |
|-----------------------------|--|
| 128. <u>E</u> Ivermectin    | A. A drug used in the treatment of navicular disease in an attempt to increase circulation to the navicular bone   |
| 129. <u>A</u> Isoxuprin     | B. The trade name for furosemide, a drug having a strong, prompt and short-lived diuretic action. It tends to lower blood pressure, especially in the lungs, and is sometimes used to prevent epistaxis in racehorses. |
| 130. <u>B</u> Lasix         | C. A crystalline barbiturate commonly used as a sedative   |
| 131. <u>D</u> Diazepam      | D. A tranquilizer and anticonvulsant used in horses, also known as Valium  |
| 132. <u>C</u> Phenobarbital | E. The generic name for a paste form of an antiparasitic agent   |
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Match the following hormone to the organ that secretes it.

- |  |                     |
|--|---------------------|
| 133. <u>C</u> Insulin                          | A. Testes           |
| 134. <u>E</u> Thyroxine                        | B. Uterus           |
| 135. <u>D</u> Estrogen                         | C. Pancreas         |
| 136. <u>A</u> Androgens                        | D. Ovarian follicle |
| 137. <u>B</u> Pregnant Mare Serum Gonadotropin | E. Thyroid          |
- 

Match the following classifications of mares to their definitions.

138. B Maiden  
139. A Lactating  
140. E Open  
141. C Pregnant  
142. D Barren

- A. A mare that is nursing a foal  
B. A mare that has never been bred  
C. A mare that is in foal  
D. A mare that is not pregnant, but was bred in the previous or current season  
E. A mare that is not pregnant and was not bred in the previous or current season
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Match the following suffixes to their meanings.

- |                       |                |
|-----------------------|----------------|
| 143. <u>C</u> -oma    | A. Development |
| 144. <u>B</u> -pathy  | B. Disease     |
| 145. <u>A</u> -trophy | C. Tumor       |
| 146. <u>D</u> -logy   | D. Study of    |
- 

Match the following prefixes to their meanings.

- |                       |          |
|-----------------------|----------|
| 147. <u>C</u> Bio-    | A. Tail  |
| 148. <u>A</u> Caud-   | B. Blood |
| 149. <u>D</u> Cranio- | C. Life  |
| 150. <u>B</u> Hemato- | D. Skull |