

Contestant ID:	Contestant Name:	2 points/correct answer (200)
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## 2011 NYS 4H Hippology Contest

### *Senior Written Examination*

Place the letter of the best answer for each question on the answer sheet provided

1. Veins differ from arteries in that they:
  - A. have thicker walls
  - B. don't usually have valves
  - C. have valves, the cusps which direct blood away from the heart
  - D. contain a larger volume of blood
  
2. The \_\_\_\_\_ is the junction of the skin and the soft horn of the periople.
  - A. Coronet
  - B. heel
  - C. quarter
  - D. toe
  
3. \_\_\_\_\_ is a chronic infection of the frog in which dark, foul-smelling dead tissue occurs in the central and collateral grooves.
  - A. White line disease
  - B. Navicular disease
  - C. Laminitis
  - D. Thrush
  
4. The \_\_\_\_\_ is collagenous connective tissue immediately beneath the hoof wall, containing many nourishing blood vessels and nerve endings.
  - A. corium
  - B. periople
  - C. laminae
  - D. white line
  
5. Navicular disease is a progressive, degenerative condition of the navicular bone, also affecting the navicular bursa and overlying \_\_\_\_\_.
  - A. Superficial digital flexor tendon
  - B. Deep digital flexor tendon
  - C. Distal sesamoidean ligaments
  - D. Collateral sesamoidean ligaments
  
6. The greater trochanter is located on the \_\_\_\_\_ surface of the femur
  - A. medial
  - B. lateral
  - C. cranial
  - D. caudal
  
7. Bones of the hock include all of the following except:
  - A. talus
  - B. calcaneus
  - C. third metatarsal bone
  - D. accessory bone
  
8. Psyllium is fed to horses which are predisposed to having:
  - A. sand colic
  - B. anemia
  - C. constipation
  - D. diarrhea
  
9. The suspensory apparatus is important for holding which joint?
  - A. Stifle
  - B. Hock
  - C. Coffin
  - D. Fetlock
  
10. The sutures of the skull and syndesmosis joints between shafts of some long bones are examples of \_\_\_\_\_ joints.
  - A. cartilaginous
  - B. fibrous
  - C. synovial
  - D. ellipsoid
  
11. Appaloosas are commonly referred to as what type of breed?
  - A. stock horse
  - B. performance horse
  - C. sporthorse
  - D. halter horse
  
12. A hog's back is:
  - A. a type of jump
  - B. a type of rope
  - C. a type of saddle
  - D. a type of saddle pad

13. A Trakehner is a type of what kind of horse?  
A. gaited  
B. stock  
C. sport  
D. draft
14. What breeds are allowed to compete in Dressage?  
A. warmblood  
B. any  
C. Thoroughbred  
D. Trakehner
15. What is not a type of insurance coverage for horses?  
A. Loss of Use  
B. Major Medical  
C. Mortality  
D. Workers Comp
16. What is not an important criteria to consider when selecting bedding?  
A. ease of handling  
B. availability and price  
C. absorption  
D. aesthetic qualities
17. Which type of use is Board Fencing not ideal for?  
A. mares and Foals  
B. stallion Fencing  
C. show and Sale Horse Paddocks  
D. arenas
18. Correctly composting manure will **NOT**:  
A. kill fly eggs  
B. kill weed seeds  
C. kill larvae  
D. Remove organic matter
19. What is the function of the broad ligament?  
A. holds the scapula to the vertebral column  
B. it is part of the bowstring effect  
C. suspends the uterus within the body cavity  
D. attaches the sacrum to the pelvis
20. What are Type IIB muscle fibers used for?  
A. peed at longer distances  
B. short and very fast bursts of energy  
C. endurance  
D. trail riding
21. How long is the spermatogenic cycle in a stallion?  
A. 49-56 days (7-8 weeks)  
B. 35 days (5 weeks)  
C. 64 days (9 weeks)  
D. 70 days (10 weeks)
22. When is the mare in anestrus?  
A. during the winter or shorter daylight hours  
B. during the summer or longer daylight hours  
C. during an equinox or when light and dark are the same length  
D. during show season
23. What portion of the hoof should never directly bear weight?  
A. frog  
B. sole  
C. hoof wall  
D. laminae
24. Horses of which coat color are more commonly prone to melanomas?  
A. Cremello horses  
B. Grey horses  
C. Perlino horses  
D. Arabians
25. How many minutes does one chukker last?  
A. 5.3 minutes  
B. 9 minutes  
C. 7.5 minutes  
D. 15 minutes
26. Another name for septicemia is:  
A. blood poisoning  
B. urinary Tract Infection  
C. heaves  
D. pneumonia
27. What portion of the hoof does an egg bar shoe support?  
A. quarter  
B. toe  
C. heel  
D. wall

28. The process of desensitization of a foal is known as what?
- natural horsemanship
  - imprint training
  - normal training
  - rational training
29. Hyperthermia is a term used to indicate what condition of a horse?
- freezing
  - getting used to a new climate
  - overheating
  - exhaustion
30. Moon blindness is also called:
- equine periodic ophthalmia
  - cataract
  - blindness
  - glass-eyes
31. What does corpus albicans refer to?
- the same as corpus luteum
  - the space left by the ovulated egg that is filled with blood
  - a degenerating corpus luteum
  - a pre-ovulatory egg
32. The most important muscle responsible for respiration is:
- diaphragm
  - intercostal muscles
  - lungs
  - abdominal muscles
33. Which paint coat color is associated with the genetic disease Megacolon?
- Frame
  - Sabino
  - Splashed White
  - Tobiano
34. Which of the following is not a respiratory disorder?
- Exercise Induced Pulmonary Haemorrhage (EIPH)
  - Equine Influenza
  - Chronic Obstructive Pulmonary Disease (COPD)
  - Hyperkalemic Periodic Paralysis (HYPP)
35. CP is an abbreviation for:
- Crude Protein
  - Crude Phosphorus
  - Coarse Protein
  - Congugated Protein
36. What is the name of the substance consumed by a foal that can act as a laxative to eliminate the meconium?
- Iodine
  - Streptomycin
  - Colostrum
  - Immunoglobulins
37. What is the diploid number of chromosomes of Equus asinus?
- 66
  - 64
  - 62
  - 60
38. The \_\_\_\_\_ is caudal to the withers.
- poll
  - carpus
  - tarsus
  - shoulder
39. The \_\_\_\_\_ plane separates the horse into equal left and right parts
- transverse
  - sagittal
  - median
  - dorsal
40. A \_\_\_\_\_ is a white patch between the nostrils.
- bald face
  - star
  - stripe
  - snip
41. Epidermis tissue is:
- dense fibrous tissue
  - stratified squamous tissue
  - collagenous tissue
  - loose connective tissue
42. Smegma from the prepuce is produced by:
- sebaceous glands
  - apocrine tubular glands
  - subcutis
  - dermis

43. Secretion of sweat by \_\_\_\_\_ glands is stimulated by motor nerves and by the hormone \_\_\_\_.
- sebaceous, epinephrine
  - sensory, testosterone
  - apocrine, epinephrine
  - sebaceous, testosterone
44. The sternum is part of the:
- appendicular skeleton
  - axial skeleton
  - forelimb
  - hindlimb
45. The correct equine vertebral formula is:
- $C_7T_{18}L_6S_5Ca_{15-21}$
  - $C_7T_{18}L_9S_5Ca_{15-21}$
  - $C_7T_{18}L_6S_8Ca_{15-21}$
  - $C_7T_{13}L_6S_5Ca_{15-21}$
46. The most common cause of wobbler syndrome is malformation of certain \_\_\_\_\_ vertebrae.
- lumbar
  - thoracic
  - cervical
  - sacral
47. The second cervical vertebrae is known as the \_\_\_\_.
- axis
  - atlas
  - caudal
  - dens
48. The horse has \_\_\_\_\_ pairs of ribs.
- 15
  - 18
  - 13
  - 20
49. Floating ribs are:
- true ribs
  - asternal ribs
  - sternebrae
  - xiphoid processes
50. Initial domestication of horses occurred in which places between 2500 B.C and 4500 BC
- China and Poland
  - China and Mesopotamia
  - Spain and France
  - France and India
51. The longest muscle on the horse is called:
- latissimus
  - omotransversarius
  - longissimus
  - sternomandibularis
52. Why does the horse rank low on the intelligence test?
- lacks ability to reason
  - can respond to cues
  - has no long term memory
  - cannot distinguish subtle cues
53. Which of the following does not describe an animal in the order perissodactyla:
- odd toed
  - non-ruminating
  - hoofed
  - even toed
54. The skeletal system of the horse functions as:
- levers, stores minerals, blood cell formation
  - levers, protects organs, regulates sodium levels
  - provides framework for muscles, protects organs, and filters fluid
  - stores minerals and releases hormones for growth
55. P in the dental formula stands for what?
- post incisor
  - premature canine
  - premolar
  - pre incisor
56. What is the name of the groove on the horse's upper incisors that can be used to tell a horse's age from 10-30 years?
- Cantanda's groove
  - Galvayne's groove
  - tuberosity groove
  - Sudden's groove
57. Why can a horse's teeth only offer an "estimate" of age?
- environmental conditions
  - breed differences
  - horses lose teeth too often
  - genetic conditions may impede tooth growth

58. Which of the following is not a joint of the front limb?

- A. carpus
- B. pastern
- C. coffin
- D. hock

59. The largest tissue mass in the horse's body is:

- A. skin
- B. muscle
- C. intestines
- D. blood

60. Type one muscle fibers are known as:

- A. slow twitch
- B. fast twitch
- C. high glycolytic
- D. high oxidative

61. What is the name of the blemish caused by thickening of the plantar ligament?

- A. curb
- B. wind gall
- C. windpuffs
- D. bursitis

62. What bond in ATP provides the most energy when broken?

- A. phosphate
- B. adenine
- C. thyrine
- D. tyrosine

63. What is the name of the organelle in muscle tissue responsible for ATP production?

- A. lysosomes
- B. mitochondria
- C. endoplasmic reticulum
- D. golgi body

64. The following are functions of the respiratory system except:

- A. removal of gas
- B. temperature regulations
- C. phonation
- D. ion exchange

65. What is the name of the cartilaginous flap that covers the trachea during swallowing?

- A. larynx
- B. pharynx
- C. epiglottis
- D. arytenoid

66. This disease is characterized by the destruction of a foal's red blood cells by serum antibodies in the colostrum of the mare:

- A. combined immunodeficiency
- B. isoerythrolysis
- C. lethal white
- D. hemophilia

67. Poisoning by Japanese yew will cause:

- A. liver cirrhosis
- B. hemolytic anemia
- C. photosensitization
- D. nervous system damage

68. Which side of the heart has a thicker wall and why?

- A. left because there is more room in the cavity for growth
- B. left because it must supply force to move blood through systemic circulation
- C. right because it must supply force to move blood through systemic circulation
- D. right because the cardiac notch in the lung provides excellent oxygenation of the tissue

69. Geophagia is the act of eating:

- A. dirt
- B. wood
- C. feces
- D. hair

70. Endometrial cups are formed on the \_\_\_\_ day of gestation

- A. 30<sup>th</sup>
- B. 32<sup>nd</sup>
- C. 36<sup>th</sup>
- D. 40<sup>th</sup>

70. Relaxin is secreted by the:

- A. uterus
- B. placenta
- C. udder
- D. ovaries

71. At rest, a horse's cardiac output is approximately:

- A. 35 liters/min
- B. 20 liters/min
- C. 10 liters/min
- D. 12.5 liters/min

72. What is the term for the blood stored in the spleen?
- A. reserve erythrocytes
  - B. splanchnic reservoir
  - C. leukocytopenia
  - D. spleen expansion and contraction
73. The life span of erythrocytes is:
- A. 120-130 days
  - B. 100-120 days
  - C. 120-150 days
  - D. 150-180 days
74. The vomeronasal organ contains:
- A. olfactory receptors
  - B. gustatory receptors
  - C. auditory receptors
  - D. salivary receptors
75. Myopia is when the image is formed:
- A. in front of the eye
  - B. in front of the retina
  - C. behind the eye
  - D. behind the retina
76. A chronic, purulent swelling of the lateral cartilage of the hoof, resulting in subcoronary abscesses is called:
- A. quittor
  - B. spavin
  - C. corn
  - D. gravel
77. Cross-firing is when:
- A. the forefoot on one side strikes the other forefoot
  - B. the hindfoot on one side strikes the other hindfoot
  - C. the hindfoot on one side strikes the forefoot on the same side
  - D. the hindfoot on one side strikes the diagonal forefoot
78. Trypsin, chymotrypsin and carboxypeptidase are enzymes that digest:
- A. carbohydrates
  - B. lipids
  - C. protein
  - D. minerals
79. Microbes in the hindgut ferment carbohydrates and the end products are:
- A. volatile fatty acids
  - B. amino acids
  - C. PSGAGs
  - D. glycosaminoglycans
80. Soybean meal contains approximately \_\_\_\_ protein:
- A. 20%
  - B. 30%
  - C. 45%
  - D. 60%
81. The hip joint is an example of a \_\_\_\_\_ joint.
- A. ball-and-socket
  - B. hinge
  - C. pivot
  - D. plane
82. The radius combines with what bone to form the forearm?
- A. scapula
  - B. humerus
  - C. ulna
  - D. knee
83. What is the common name for the outer coverings of grains?
- A. hulls
  - B. shells
  - C. meal
  - D. holes
84. What is the name of the hormone secreted by the pituitary gland which stimulates the adrenals to secrete corticosteroids?
- A. TSH
  - B. adrenaline
  - C. GH
  - D. ACTH
85. On what chromosome does the gene for hemophilia ride?
- A. XY chromosome
  - B. X chromosome
  - C. Y chromosome
  - D. chromosome 23
86. The \_\_\_\_\_ characterizes the proximal and distal ends of long bones.
- A. endosteum
  - B. diaphysis
  - C. epiphysis
  - D. periosteum

87. The cannon bone is also known as the \_\_\_\_\_

- A. second metacarpal
- B. third metacarpal
- C. fourth metacarpal
- D. third metatarsal

88. The coffin bone is also known as the \_\_\_\_\_

- A. middle phalanx
- B. first phalanx
- C. distal sesamoid
- D. third phalanx

89. How are horses infected with strongyloides?

- A. mare's milk
- B. grass
- C. feces
- D. contaminated water

90. Name the condition found in growing foals whose joint cartilage does not properly differentiate.

- A. osteochondrosis dissecans (OCD)
- B. splints
- C. osteitis
- D. ting bone

91. What is the name of the Australian wild horse?

- A. bambi
- B. brumby
- C. australian mustangs
- D. aborigines

92. This is a warm season grass:

- A. bluegrass
- B. fescue
- C. bermudagrass
- D. timothy

93. The condyle of the humerus, proximal end of the radius and trochlear notch of the ulna all make up the \_\_\_\_\_ joint.

- A. antebrachiocarpal
- B. radioulnar
- C. elbow
- D. shoulder

94. This disease is caused by insufficient corticosteroid production by the adrenal glands:

- A. Cushing's disease
- B. Chrone's disease
- C. Addison's disease
- D. Abu'urqub disease

95. A lack of hair in areas where hair should be normally present is called:

- A. atopia
- B. alopecia
- C. scaling off
- D. rain rot

96. The word "bactericidal" means:

- A. able to kill bacteria
- B. able to stop the growth of bacteria
- C. able to multiply bacteria
- D. able to identify bacteria

97. The word "cachexia" means:

- A. lack of appetite
- B. obesity
- C. lame
- D. wasting and malnutrition

98. The poison found in blister beetles is called:

- A. gossypol
- B. tannin
- C. cantharidin
- D. lanthanum

99. A fatal genetic disease that affects Arabian foals and impedes the formation of their own antibodies:

- A. RAO
- B. SCID
- C. HYPP
- D. OCD

100. These parasites can cause summer sores:

- A. strongyles
- B. ascarids
- C. habronema
- D. anaplocephala

EXTRA questions that can be substituted for any of the first 100.

. The cowboy in steer wrestling that rides on the opposite side of the steer that is being wrestled is called:

- A. bulldog
- B. hazer
- C. bull fighter
- D. heeler

. The offspring of a female donkey bred to a male horse is called:

- A. mule
- B. jack
- C. jenny
- D. hinny

. A hog's back is:

- E. a type of jump
- F. a type of rope
- G. a type of saddle
- H. a type of saddle pad

. An abnormally long hair coat is called:

- A. shaggy
- B. pituitaryism
- C. hirsutism
- D. alopecism

. The equipment used to determine the angle of the hoof relative to the ground is:

- A. hoof pick
- B. hoof tester
- C. hoof gauge
- D. hoof nipper

. Hyperkalemia is:

- A. high levels of calcium in the blood
- B. high levels of potassium in the blood
- C. high levels of sodium in the blood
- D. high levels of chlorine in the blood

. The area in the chest cavity that contains the heart, the trachea and the esophagus is called:

- A. mediastinum
- B. pleura
- C. peritoneum
- D. linea alba

. A maiden mare is one that:

- A. is unable to get in foal
- B. has never been bred
- C. has aborted recently
- D. was not bred during the last season

. A bay horse with 2 cream dilution genes will be:

- A. cremello
- B. brown
- C. buckskin
- D. perlino

. The metacarpophalangeal joint is also known as the:

- A. pastern joint
- B. coffin joint
- C. fetlock joint
- D. cubital joint

. \_\_\_\_\_ are swellings of the palmar recess of the fetlock joint capsule, due to an excessive amount of synovial fluid produced by the synovial membrane of the fetlock joint:

- A. ergots
- B. bone spavins
- C. capped hocks
- D. wind puffs

. \_\_\_\_\_ is a term for muscle inflammation:

- A. endosytis
- B. myositis
- C. arthritis
- D. myelin

. Abduction is a term for the movement of a limb \_\_\_\_\_ the body

- A. away from
- B. to the right of
- C. to the left of
- D. towards

. The longest muscle on the horse is called:

- A. latissimus
- B. omotransversarius
- C. longissimus
- D. sternomandibularis

. Thickening caused by inflammation of a flexor tendon is commonly called a \_\_\_\_\_ and occurs most frequently in the superficial digital flexor tendon.

- A. splint
- B. curb
- C. bog spavin
- D. bowed tendon



. \_\_\_\_\_ refers to the procedure of cutting a palmar or plantar digital nerve to relieve pain.

- A. Sweeney
- B. Blocking
- C. Nerving
- D. Desmotomy