2009 Senior Hippology Exam KEY

Carefully read each of the following questions, and enter the correct answer on your scantron sheet. Please completely fill in the space of your preferred answer on your scantron and circle your answer on this exam using a No. 2 pencil. Please make sure YOUR NAME and PARTICIPANT NUMBER are bubbled in correctly on your scantron and written on this exam. Good luck!

EXAM I

1. What part of the hoof absorbs shock?
   a. Periople
   b. Hoof wall
   c. Frog  HIH 505-2
   d. Sole

2. What breed of horses are used in harness racing?
   a. Standardbred  HIH 171B-1
   b. Saddlebred
   c. Thoroughbred
   d. Hackney

3. The gestation period of a mare is approximately how many months?
   a. 9 months
   b. 10 months
   c. 11 months  HIH 940-2
   d. 12 months

4. How much water does a mature horse drink in one day?
   a. 6-8 gallons
   b. 8-10 gallons
   c. 10-12 gallons  HIH 710-7
   d. 12-14 gallons
5. What color horse has a yellowish or gold body, black main and tail, black lower legs, and no dorsal stripe?
   a. Buckskin HIH 140-1
   b. Dun
   c. Palomino
   d. Grullo

6. Which group would be creep fed?
   a. Weanlings
   b. Foals (Evans, 264)
   c. Yearlings
   d. Broodmares

7. What vitamin is vital for proper growth and development of the hoof?
   a. Vitamin A HIH 505-2
   b. Vitamin C
   c. Vitamin D
   d. Vitamin E

8. What is the best and safest wire to use for horse fencing?
   a. Five diamond, V-mesh HIH 350-3
   b. Rectangular woven wire
   c. High-tensile wire
   d. Polyvinyl chloride

9. Which of the following is NOT a fat-soluble vitamin?
   a. Vitamin K
   b. Vitamin E
   c. Vitamin D
   d. Vitamin C HIH 760-10

10. What type of hay, when improperly harvested, can cause Vitamin K deficiency?
    a. Timothy
    b. Alfalfa
    c. Orchard grass
    d. Clover (Evans, 256)

11. Which is a trace nutrient?
    a. Protein
    b. Calcium
    c. Iodine (Evans, 231)
    d. Magnesium
12. Which bone in the leg rotates in a horse suffering from founder?
   a. Navicular bone
   b. Short Pastern bone
   c. Coffin bone
   d. Cannon bone

13. Which gait has the fewest beats?
   a. Walk
   b. Canter (Evans, 176)
   c. Gallop
   d. Running Walk

14. What is the most important thing to consider in horse selection?
   a. Breed
   b. Color
   c. Conformation
   d. Use/purpose (Evans, 132)

15. What bones form the withers?
   a. Thoracic vertebrae and scapula (Evans, 151)
   b. Cervical vertebrae and scapula
   c. Sacral vertebrae and scapula
   d. Lumbar vertebrae and scapula

16. Which involves inflammation of the growth plate?
   a. Carpitis
   b. Arthritis
   c. Epiphysitis (Evans, 163)
   d. Metritis

17. What is the primary sign of iron deficiency?
   a. Colic
   b. Weight loss
   c. Anemia (Evans, 233)
   d. Depressed immune system

18. Which term is associated with colic?
   a. Volvulus (Dict. 285)
   b. Vitreous
   c. Viscous
   d. Vitiglio
19. Where is the cecum located?
   a. Junction of small intestine and colon (Evans, 192)
   b. Junction of stomach and small intestine
   c. Junction of esophagus and stomach
   d. Junction of colon and rectum

20. What hormone induces parturition?
   a. Progesterone
   b. Estrogen
   c. Parturition hormone
   d. Oxytocin

21. What structure produces Pregnant Mare’s Serum Gonadotropin (PMSG)?
   a. Endometrial cups (Evans, 345)
   b. Corpus luteum
   c. Corpus hemorrhagicum
   d. Myometrial tissue

22. What horse disease is caused by the bacteria Streptococcus equi?
   a. Strangles HIH 615-1
   b. Equine viral arteritis
   c. Influenza
   d. Encephalomyelitis

23. Which of the following affect the gestation length of mares?
   a. Sex of the foal
   b. Month of conception
   c. Individual mare
   d. All of the above (Evans, 343)

24. What is used to measure the concentration of antibody in the horse’s system?
   a. Vaccine
   b. Titer (Dict. 269)
   c. Hematocrit
   d. Antigen

25. Which term describes a gait that is short, quick, high and choppy?
   a. Rolling
   b. Snappy
   c. Rack
   d. Trappy (Evans, 181)
26. When does foal heat occur?
   a. Less than 2 weeks after foaling (Evans, 349)
   b. 2-3 weeks after foaling
   c. 3-4 weeks after foaling
   d. 5 or more weeks after foaling

27. The horse’s stomach makes up what percent of its digestive tract?
   a. 8%    HIH 710-2
   b. 15%
   c. 22%
   d. 29%

28. Who ensures that a race meeting is conducted according to the rules?
   a. Judge
   b. Jockeys
   c. Track owner
   d. Steward (Dict. 255)

29. Which is a skin condition?
   a. Seborrhea (Dict. 240)
   b. Seedy toe
   c. Scalping
   d. Polypuria

30. Which nutrient is necessary for health, but can be toxic if overfed?
   a. Vitamin B
   b. Vitamin C
   c. Calcium
   d. Selenium (Dict. 24)

31. Which is also known as recurrent uveitis?
   a. Moon blindness (Dict. 230)
   b. Sun blindness
   c. Ictheria
   d. Uveoloma

32. In the respiratory system, the alveoli are...
   a. The functional units of the lung where gas exchange usually occurs. (HIH 810-1)
   b. Blood vessels
   c. The functional unit of the trachea.
   d. Transitional cells that hold a reserve amount of oxygen so the lungs never run out.
33. Which part of the horse’s body is most commonly used to determine age in a horse?
   a. Skin/coat
   b. Back legs
   c. Teeth (HIH 240-1)
   d. Length of tail and mane

34. Which breed of horse originated in colonial Virginia and Carolina’s in the early 1600s?
   a. Arabian Horse
   b. Quarter Horse (HIH 1688-1)
   c. Saddlebred
   d. Standardbred

35. What condition may be caused by bruising the top of the head?
   a. Fistula
   b. Splint
   c. Pituitary tumor
   d. Poll evil (Dict. 217)

36. What is the major cause of infertility in a mare?
   a. Age
   b. Improper nutrition
   c. Uterine Infection (HIH 940-1)
   d. Poor breeding conformation

37. What is the most commonly used bit material?
   a. Copper
   b. Rubber
   c. Stainless Steel (HIH 1100-10)
   d. German Silver

38. A horse’s respiration rate during rest will range from…?
   a. 40-30 breaths per minute
   b. 33-27 breaths per minute
   c. 21-25 breaths per minute
   d. 8-16 breaths per minute (HIH 851-3)

39. How much do horses contribute annually to the economy?
   a. 15 Billion (HIH 120-1)
   b. 15 Million
   c. 10 Million
   d. 1 Billion
40. Which bit can act as either a curb or a snaffle?
   a. Tom Thumb
   b. Pelham (Dict. 207)
   c. Egg Butt
   d. Spade

41. Which is a measure of the total blood volume that is occupied by red blood cells?
   a. Hemoglobin
   b. Hematocrit (Dict. 137)
   c. Hematome
   d. Hematocyte

42. How many pairs of chromosomes does the horse have?
   a. 32 (HIH 1020-1)
   b. 26
   c. 24
   d. 12

43. Which parasite is actually a free living fly as an adult and can be seen on the hairs of the legs as eggs?
   a. Small Strongyles
   b. Gastrophilus (bots) (HIH 950-9)
   c. Tapeworm
   d. Parascari equorum

44. What is teasing?
   a. A method of halter breaking
   b. A method of determining if a mare is in estrus (Evans, 390)
   c. A method of training a horse to load
   d. A method of collecting stallions

45. Which is an example of a ginglymus joint?
   a. Atlanto-axial
   b. Jaw
   c. Shoulder
   d. Hock (Dict. 120)

46. What genetic disease is found primarily in Arabian horses?
   a. HYPP
   b. SCID
   c. EIA
   d. OLWS
47. What temperature should collected semen be maintained at for immediate use?
   a. 90 degrees
   b. 95 degrees
   c. 100 degrees
   d. 105 degrees

48. What term refers to a disease that is constantly present in a geographic area?
   a. Contagious
   b. Infectious
   c. Endemic (Dict. 91)
   d. Empyema

49. What stimulates a mare to begin her estrous cycles?
   a. Lengthening daylight (Evans, 393)
   b. Warmer temperatures
   c. Exposure to a stallion
   d. Grazing fresh grass

50. Septicemia is what type of infection?
   a. Joints
   b. Spinal cord
   c. Brain
   d. Blood (Evans 429)

51. What genotype changes a bay to a buckskin?
   a. $DD$
   b. $Dd$
   c. $CC$
   d. $Cc^{cr}$ (Evans, 481)

52. A fecalith is______?
   a. A hardened piece of fecal material
   b. A decomposing fetus
   c. A stonelike mass that forms around a foreign object in the intestines
   d. A ball of ingesta that can cause an impaction (Dict. 105)

53. What is semen morphology?
   a. Activity level of sperm cells
   b. Concentration of sperm cells
   c. Shape of sperm cells
   d. Volume of semen
54. Which color dominance statement is correct?
   a. Bay dominates black (Evans, 479)
   b. Chestnut dominates bay
   c. Black dominates gray
   d. Brown dominates bay

55. Which formula is used to calculate genetic progress per year?
   a. Generation Interval x Intensity Factor x Genetic standard deviation / Accuracy
   b. Accuracy x Generation Interval x Genetic standard deviation / Intensity Factor
   c. Accuracy x Intensity Factor x Generation Interval / Genetic standard deviation
   d. Accuracy x Intensity Factor x Genetic standard deviation / Generation Interval (Evans, 557)

56. Which is an inflammatory disease of the lungs?
   a. Strangles
   b. Influenza
   c. Pneumonia (Evans, 597)
   d. Encephalomyelitis

57. Where would a keratoma be found?
   a. Eye
   b. Nose
   c. Hoof (Dict. 161)
   d. Inside hind leg

58. Which can be treated with an anti-toxin?
   a. Influenza
   b. Equine Viral Arteritis
   c. Equine Encephalomyelitis
   d. Tetanus (Evans, 601)

59. A farrier tool used to cut off excess hoof growth is a?
   a. Rasp
   b. Clincher
   c. Nippers (Dict. 190)
   d. Clippers

60. What type of organism causes Potomac Horse Fever?
   a. Virus
   b. Bacteria
   c. Prion
   d. Rickettsia (HIH, 650-1)
61. What is defined as “any deviation in structure that interferes with the horses intended use or performance”?
   a. Conformation
   b. Blemishes
   c. Under-evaluation
   d. Unsoundness (HIH 230-1)

62. What country is the origin of the Exmoor pony?
   a. Germany
   b. Ireland
   c. Wales
   d. England (HIH 157B-1)

63. What deviation in travel is associated with horses that toe-in?
   a. Winging
   b. Paddling (HIH 230-5)
   c. Ropewalking
   d. Wobbling

64. At what age does a horse get canine teeth?
   a. 1 year
   b. 2 years
   c. 4-5 years (HIH 240-1)
   d. 8-9 years

65. What parasite causes itching around the rectum?
   a. Strongyles
   b. Ascarids
   c. Strongyloides
   d. Pinworms (HIH 430-2)

66. Which parasite affects the liver?
   a. Strongyles (HIH 430-6)
   b. Bots
   c. Strongyloides
   d. Pinworms

67. Cushing’s disease is a tumor of what?
   a. Adrenal gland
   b. Thyroid gland
   c. Salivary gland
   d. Pituitary gland (HIH 450-5)
68. Which can cause laminitis?
   a. Metabolic disease
   b. Overwork
   c. Excessive feed
   d. All of the above (HIH 455-1)

69. Which is an ossification of the lateral cartilage?
   a. Ringbone
   b. Sidebone (HIH 455-5)
   c. Elbow boil
   d. Shoe boil

70. Which shoe would most likely be used on a horse with navicular disease?
   a. Heart bar
   b. Egg bar (HIH 515-4)
   c. Patten
   d. Hospital plate

71. What type of bacteria causes thrush?
   a. Aerobic
   b. Anaerobic (HIH 540-1)
   c. Streptococcus
   d. Staphylococcus

72. Which disease is most likely to cause abortions?
   a. Rhinopneumonitis (HIH 610-1)
   b. Equine influenza
   c. Potomac horse fever
   d. West Nile virus

73. Transmission of what disease is associated with “carrier stallions”?
   a. Equine Infectious Anemia
   b. Equine Viral Arteritis (HIH 620-2)
   c. Equine Rhinopneumonitis
   d. Encephalomyelitis

74. Horses that are ‘asymptomatic’ …
   a. Show no symptoms of the disease (HIH 625-1)
   b. Have uncommon disease symptoms
   c. Are severely affected by disease symptoms
   d. Have normal expression of disease symptoms
75. What are ‘dead end carriers’ of a virus?
   a. They die shortly after infection
   b. They don’t get sick or show any signs of the disease
   c. They do not create enough of the virus to transmit back to the vector (HIH 665-3)
   d. None of the above

76. Which is the BEST description of the horse’s digestive system?
   a. Non-ruminant
   b. Ruminant
   c. Monogastric
   d. Non-ruminant herbivore (HIH 710-1)

77. Where is the primary site of nutrient absorption in the digestive tract?
   a. Stomach
   b. Small intestine (HIH 710-1)
   c. Large intestine
   d. Cecum

78. Which class of horse has the highest nutritional needs?
   a. Working
   b. Idle
   c. Growing (HIH 710-3)
   d. Producing

79. What is a complete feed?
   a. Forage and concentrate in one feed (HIH 710-5)
   b. Has all of the concentrates in one feed
   c. Has all of the forage in one feed
   d. Meets the complete requirements for all horses

80. What forage may cause agalactia in mares?
   a. Alfalfa
   b. Clover
   c. Fescue (HIH 730-5)
   d. Orchardgrass

81. What is the problem with storing hay directly on concrete?
   a. Spontaneous combustion
   b. Contamination
   c. Moisture absorption (HIH 750-9)
   d. Loss of hay color
82. Which is a legume?  
   a. Timothy  
   b. Fescue  
   c. Birdsfoot trefoil (HIH 760-2)  
   d. Bahia

83. Which has the highest percent protein?  
   a. Barley  
   b. Corn  
   c. Wheat  
   d. Soybean meal (HIH 760-8)

84. Which disease can be caused by excess carbohydrate intake?  
   a. Enteroliths  
   b. Rhabdomyolysis (HIH 770-3)  
   c. Developmental Orthopedic disease  
   d. Anemia

85. Where is oxygen bound on the red blood cell?  
   a. Nucleus  
   b. Hemoglobin (HIH 810-1)  
   c. Endocrine  
   d. Myoglobin

86. The diaphragm and intercostal muscles are most active during:  
   a. Inspiration (HIH 810-1)  
   b. Expiration  
   c. Both  
   d. Neither

87. Stroke volume is:  
   a. The amount of blood pumped by the ventricle (HIH 830-1)  
   b. The amount of blood pumped by the atrium  
   c. The amount of blood traveling through the body at a given time  
   d. The amount of blood a horse can lose before having a stroke

88. Which mineral is part of Vitamin B12?  
   a. Cobalt (Lewis, 39)  
   b. Iron  
   c. Magnesium  
   d. Fluoride
89. What is the effect of increased maturity on hay quality?
   a. Increases nutrients
   b. Increases fiber (Lewis, 68)
   c. Increases digestibility
   d. Increases palatability

90. Which processing method has a significant increase in starch digestion of feed?
   a. Grinding (Lewis, 77)
   b. Rolling
   c. Cracking
   d. Crushed

91. What term describes the time when a mare is not cycling?
   a. Anestrus (Lewis, 235)
   b. Diestrus
   c. Monestrus
   d. Polyestrus

92. When should mares be vaccinated to maximize the amount of antibodies in their colostrum?
   a. 2 weeks pre-foaling
   b. 3 weeks pre-foaling
   c. 4 weeks pre-foaling (Lewis
   d. 6 weeks pre-foaling

93. Which is related to increased occurrence of Developmental Orthopedic Disease in foals?
   a. Lack of energy intake
   b. Excessive energy intake (Lewis, 286)
   c. Excessive protein intake
   d. Lack of concentrate intake

94. Which toxic chemical can horses be exposed to through sawdust or shavings?
   a. Cyanide
   b. Helium
   c. Hydrochloric acid
   d. Jugalone (Lewis, 322)

95. What feedstuff is most likely to be contaminated with the mycotoxin Fumonisin?
   a. Corn (Lewis, 349)
   b. Oats
   c. Barley
   d. Rye
96. What common livestock feedstuff is toxic to horses?
   a. Ionophores (Lewis, 361)
   b. Silage
   c. Round hay bales
   d. Haylage

97. What is coprophagia?
   a. Eating of wood
   b. Eating of stones
   c. Eating of bedding
   d. Eating of feces (Lewis, 374)

98. Inflammation of what tissue is known as a curb?
   a. Flexor tendon
   b. Collateral ligament
   c. Cruciate ligament
   d. Plantar ligament (Lewis, 386)

99. What hormone causes lysis of the corpus luteum?
   a. Progesterone
   b. Estrogen
   c. Prostaglandin (Lewis, 400)
   d. Oxytocin

100. Which schedule of reinforcements is used once a behavior is learned?
     a. Continuous
     b. Extinction
     c. Acquisition
     d. Intermittent (Evans, 668)

Congratulations! You have completed the 2009 Senior Hippology written exam. Please double check all your answers and MAKE SURE YOUR NAME and PARTICIPANT NUMBER ARE BUBBLED IN CORRECTLY.