Match the type of clip pictured below to questions 1-6. Pictures from: www.newrider.com

a. Hunter Clip  
b. Neck and Belly Clip  
c. Chaser Clip  
d. Trace Clip  
e. Blanket Clip  
f. Full Clip

7. Generally speaking, a horse has how many vertebrae in the spine?
   a. 24  b. 34  c. 44  d. 54  e. 64

8. Croup vertebrae are also known as:
   a. cervical  
b. lumbar  
c. coccygeal  
d. thoracic  
e. sacral
9. In reference to vertebrae, C4 indicates:
   a. the forth cervical vertebrae from the head
   b. the forth coccygeal vertebrae from the head
   c. the foramen for the forth cranial nerve
   d. the attachment site for the nuchal ligament
   e. the location of the “Hunter’s Bump”

10. The main bulk of a vertebral bone is called:
    a. vertebral mass
    b. vertebral column
    c. vertebral arch
    d. vertebral body
    e. vertebral spine

11. Yellow mucus membranes on a horse might indicate:
    a. liver disease
    b. dehydration
    c. acute blood loss
    d. anemia
    e. poor peripheral circulation

12. Psyllium which comes from the husk of the fleawort seed, is generally used to treat:
    a. diarrhea
    b. wobbles
    c. whiteline disease
    d. sand colic
    e. thrush

13. What Spanish explorer first brought horses back to the north American continent?
    a. Cortes
    b. Hernando
    c. De Soto
    d. Columbus
    e. Magellan

14. Which of the following types of shoes is used to treat fractures of the pedal bone?
    a. Bar shoe
    b. Medicine shoe
    c. Rocker toe shoe
    d. Shoe with a trailer
    e. Keg shoe

15. Which of the following diseases of the horse is characterized by progressive degeneration of
    the brain and spinal cord?
    a. Glanders
    b. Eastern Equine Encephalitis
    c. Equine Infectious Anemia
    d. Potomic Horse Fever
    e. Equine Protozoal Myoencephalitis

16. Which of the following parasites are not sensitive to pyrantel tartate?
    a. Large strongyles
    b. Pinworms
    c. Ascarids
    d. Small strongyles
    e. Bot larvae
17. Which of the following protozoa is the cause of EPM?
   a. Rickettsia ehrlichii  
   b. Streptococcus equi  
   c. Borrelia Burgdoferi  
   d. Sarcocystis neurona  
   e. Myxovirus equi

18. Which of the following species are susceptible to West Nile Virus?
   a. Humans, birds, and horses  
   b. Cattle, horses, and dogs  
   c. Raccoons, birds, and horses  
   d. Humans, cats, and horses  
   e. Deer, horses and humans

19. When a muscle is working, which of the following is produced as ATP is depleted?
   a. Inosine monophosphate  
   b. Ribonucleic Acid  
   c. Dicalcium Phosphate  
   d. Cyclic AMP  
   e. Pyruvic Acid

20. Which is an accurate description of Polysaccharide Storage Myopathy?
   a. Progressive muscle degeneration due to lack of nutrition  
   b. Accumulation of glycogen in the striated muscle of the limbs during intense exercise  
   c. Inability of the heart muscle to break down complex carbohydrates  
   d. Inability of muscle cells to utilize the process of oxidative phosphorulation  
   e. Accumulation of large quantities of sugar in muscle cells

21. Your horse has heat in his fetlock joint. Your vet tells you to ice the joint. What is the maximum amount of time that ice should be in contact with skin to avoid tissue damage?
   a. 10 minutes  
   b. 20 minutes  
   c. 60 minutes  
   d. 15 minutes  
   e. 30 minutes

22. Which roughage can be described as having jointed stems and a seed-like fruit?
   a. Alfalfa  
   b. Red Clover  
   c. Lespensa  
   d. Timothy  
   e. Trefoil

23. Which of the following thrives in warm southwestern climates?
   a. Wheatgrass  
   b. Tall fescue  
   c. Orchard grass  
   d. Alfalfa  
   e. Bermuda grass

24. Alfalfa cut in the pre-bloom stage has an average of what percent crude protein?
   a. 5%  
   b. 10%  
   c. 15%  
   d. 20%  
   e. 25%
25. What percentage of a plant's protein is concentrated in the leaves?
   a. 30%    b. 50%    c. 70%    d. 90%    e. 98%

26. Cantharidin can be defined as:
   a. a toxin produced by blister beetles
   b. a toxin produced by clostridium tetani
   c. a toxin found in moldy corn
   d. an endophyte found in tall fescue grass
   e. the caustic poison found in black walnut shavings

27. In reference to nutrition, What do the initials ADF stand for?
   a. Acidic digestible fiber    d. Acid detergent free
   b. Acid detergent fiber    e. Adenosine Diformaldehyde
   c. Adenosine digestible forage

28. A red ribbon in the tail of a horse signifies that
   a. The horse is being shown by an inexperienced rider
   b. The horse tends to stop suddenly
   c. The horse may kick if another horse get too close
   d. The horse is a novice horse
   e. All of the above

29. What is the approximate capacity of a horse's stomach?
   a. 3 gallons    d. 3 quarts
   b. 5 gallons    e. 5 quarts
   c. 12 pints

30. Anhidrosis can be defined as
   a. The inability to drink    d. The inability to sweat
   b. Extreme thirst    e. Low blood pressure
   c. Inadequate blood volume

31. Exertional Rhabdomyolysis is another name for what syndrome?
   a. Azoturia
   b. Strangles
   c. Temporarily Muscular paralysis
   d. Hyperkalemic Periodic Paralysis (HYPP)
   e. Combined Immunodeficiency Syndrome (CIDS)

32. Vitamin C regulates the storage of which nutrient?
   a. Vitamin K    d. Thymine
   b. Calcium    e. Potassium
   c. Iron
33. Which of the following vitamins consist of a diverse family of retinoids?

34. Which of the following minerals works with Vitamin E to protect cellular membranes from peroxides?
   a. Potassium    d. Zinc
   b. Selenium    e. Copper
   c. Iron

35. In reference to diseases, the initials CEM stand for what?
   a. Chronic Equine Metritis    d. Contagious Equine Metritis
   b. Contagious Equine Myopathy    e. Chronic Equine Myopathy
   c. Both A and D

36. Which tendon is most often bowed?
   a. Digital Extensor    d. Deep digital
   b. Superficial Flexor    e. Achilles
   c. Deep Extensor

37. A tedder can be defined as
   a. A tool that stretches high tensile wire when building fence
   b. A mare that shows no sign of estrus
   c. A horse raced under false identity
   d. A person that illegally places bets at a racetrack
   e. A machine that stirs newly mown hay

38. What is the function of lymph?
   a. To transport old erythrocytes to the kidney
   b. To maintain the body's fluid balance
   c. To rid cells of nitrogenous wastes
   d. To carry RNA from the nucleus to the ribosomes
   e. To maintain a body pH of 6.8

39. What is the percentage of water in fresh cut forages?
   a. 80-90%    b. 75-80%    c. 50-60%    d. 40-50%    e. 20-30%

40. Clostridium botulinum falls into which classification of microorganisms?
   a. Fungus    d. Myxovirus
   b. Protozoan    e. Bacteria
   c. Virus

41. Which of the following is NOT a fat-soluble vitamin?
   a. A    b. D    c. E    d. B    e. None of these
Questions 42-46. Match the terms or abbreviations below to the questions 42 to 46 below. Choices may be used more than once or not at all.

   a. HERDA
   b. Lethal white
   c. HYPP
   d. CID
   e. Epitheliogenesis imperfecta

42. a hereditary immunological disease in Arabians
43. a connective tissue defect in American Saddlebreds and Belgians
44. confined to Pintos and Paints
45. a dermatological condition of foundation-bred Quarter Horses
46. an irregularity in the muscle systems of some Quarter Horses

47. Any hemorrhage from the nares is considered __________.
   a. epidermal
   b. entropian
   c. enterolith
   d. epistaxis
   e. epilepsy

48. Which of the answers in question 47 refers to an intestinal stone?

Questions 49-51. Match the terms below to questions 49-51 below. Choices may be used more than once or not at all.

   a. nodule
   b. nystagmus
   c. nidus
   d. quittor
   e. sulci

49. At the center of an intestinal stone mass is the foreign object that formed its foundation. What is the scientific name for that point of origin?

50. Which of the terms refers to furrows between the frog and the sole of the hoof?

51. Which of the terms refers to uncontrollable eye movement?

Questions 52-56. Horses often engage in stable vices. Listed below are some pieces of equipment or items that keep horses from performing these behaviors. For questions 52-56, Match the piece of equipment with the behavior it curbs or eliminates. Choices may be used more than once or not at all.

   a. leg chains
   b. cradle
   c. hobbling
   d. mirrors
   e. hot chili pepper powder

52. Self-mutilation
53. Pawing
54. Weaving
55. Tail chewing
56. Kicking
Questions 57-61. Use the reproductive terms below to answer questions 57-61 below. **Choices may be used more than once or not at all.**

- a. oviducts
- b. cervix
- c. ovum
- d. uterus
- e. horns

57. fertilization of the egg occurs here
58. acts as a barrier between the uterus and the vagina
59. unfertilized egg
60. fertilized egg implants here
61. paired branchings of the uterus leading from the body of the uterus to the uterine tubes

62. Ultrasound examination of the mare’s uterus to determine pregnancy is usually done at days after breeding.
   - a. 4 to 5
   - b. 7 to 8
   - c. 14 to 15
   - d. 21 to 23
   - e. 25-30

63. In mares, twins are almost always caused by ovulation and fertilization of more than one egg, not division of an embryo.
   - a. true
   - b. false

64. At what point should mares begin to be fed slightly more energy to support the growth of the fetus?
   - a. three months
   - b. five months
   - c. seven months
   - d. eight months
   - e. ten months

65. The antibody-rich milk released first by a nursing mare is called ____________.
   - a. wax
   - b. clostridium
   - c. amnion
   - d. colostrum
   - e. chlorionallantois

Questions 66-70. Match the following genetics terms with the most appropriate item. **Choices may be used more than once or not at all.**

- a. genes
- b. chromosomes
- c. gametes
- d. DNA
- e. karyotype

66. the reproductive cells-the egg and sperm
67. arrangement of paired chromosomes
68. individual units of inheritance
69. large and complex molecules of DNA that occur in every body cell
70. the genetic material of living cellular organisms
71. How many pairs of chromosomes are present in equine body cells?
   a. 16    b. 32    c. 62    d. 64    e. 66

72. Gametes of the horse contain___________ chromosomes.
   a. 16    b. 32    c. 62    d. 64    e. 66

73. During the Peakness, Barbaro shattered his right pastern bone into 20 small pieces. What type of fracture did he suffer?
   a. greenstick  b. compound  c. comminuted  d. hairline  e. stress

74. Barbaro survived surgery to repair his shattered leg but almost died because he was carrying more weight on his good left hind leg which lead to a condition known as . . . .
   a. laminitis    b. bowed tendon  c. stress fractures  d. ringbone  e. thrush

75. What condition of the hooves is most often related to strong pulsation of the digital artery?
   a. quarter cracks    b. laminitis  c. navicular  d. seedy toe  e. thrush

76. In the horse, what organ secretes bile into the small intestine?
   a. pancreas  b. liver  c. spleen  d. stomach  e. gall bladder

Questions 77-80. Match the following nervous system terms with the most appropriate item. 
**Choices may be used more than once or not at all.**

   a. Vagus nerve  b. hypoglossal nerve  c. olfactory nerve
   d. optic nerve  e. glossopharyngeal nerve

Horses possess twelve primary cranial nerves.

77. The nerve responsible for the sense of smell
78. The nerve that aids in vision
79. The nerve that motors the muscles of the tongue
80. The nerve that regulates the movement of the diaphragm

Questions 81-85. Match the following terms related to the way-of-going of horses with their definitions listed in questions 81-85. **Choices may be used more than once or not at all.**

   a. scapling  b. forging  c. overreaching  d. cross-firing  e. rolling

81. The toe of the hind foot hits the sole area of the forefoot on the same side
82. Contact on the inside of the diagonal fore and hind feet
83. The toe of the hind foot catches the forefoot on the same side, usually at the heel
84. The toe of the front foot hits the hairline at the coronary band or above on the hind foot of the same side
85. A laborious, inefficient gait of wide-fronted horses
Questions 86-90. Match the types of colic with their definitions listed in questions 86-90. Choices may be used more than once or not at all.

- a. spasmodic
- b. impaction
- c. incarceration
- d. displacement
- e. excessive fermentation

86. Intestinal segment has become twisted or trapped in an abnormal position
87. Blockage of intestinal tract with normal ingesta
88. Irregular muscle contractions of the intestinal tract
89. Upset in gas and/or fluid production in the digestive tract
90. Loop of intestine is entrapped by a normal or abnormal abdominal structure

Questions 91-94. Listed below are common classes ridden by saddleseat riders. Match the class to the class descriptions in questions 91-94. Choices may be used more than once or not at all.

- a. Road Hack
- b. Park Saddle
- c. Saddleseat pleasure
- d. Classic Country Pleasure

91. Equines are shown at a walk, normal trot, strong trot and canter. A quiet responsive mount is paramount. Extreme knee action and speed are to be penalized.
92. Equines are shown at a walk, trot, extended trot, canter and hand gallop. Scoring emphasis is placed on performance and conformation of the equine.
93. Equines are to be shown at a walk, trot, canter. Equine should show brilliance, collection, and animation in performance.
94. Equine shown at a walk, trot and canter. It is recommended that equines be brought to a flat-footed walk before changing gaits. Poor manners will be penalized.

Questions 95-99. Match the type of wound with its description in questions 95-99. Choices may be used more than once or not at all.

- a. Laceration
- b. Incised
- c. Puncture
- d. Abrasion
- e. Penetrating

95. Can be more serious than they appear and are characterized by a small skin opening.
96. Torn edges and irregular shape
97. Superficial skin wounds resulting from rubbing or scraping against an irritant surface.
98. Clean straight edges and often bleed quite freely
99. Entrance is through on of the body cavities such as the thorax or abdomen and are very serious.

100. WARNING. Do not over think this question!!!! Where on the horse is the pastern bone located?

- a. head
- b. abdomen
- c. neck
- d. tail
- e. LEG

WHEW!!! You are done! MAKE sure your name an ID # are on BOTH the question booklet and answer sheet. Hand everything in to the monitor when you are completed.