

**2013 New York State Hippology Contest Senior Written Exam***Write your answers on the answer sheet, not on this paper*

1. A large infestation of bots can cause paralysis of what part of the alimentary canal?
  - a. Esophagus
  - b. Small Intestine
  - c. Stomach
  - d. Cecum
2. Where would you find smooth muscle?
  - a. The heart
  - b. The digestive tract
  - c. The shoulder
  - d. The gaskin
3. Which nutrient if fed in abundance results in the production of additional urea that must be excreted in the urine?
  - a. Carbohydrates
  - b. Protein
  - c. Fats
  - d. Minerals
4. What is the average total time for food to pass through the horse's digestive system?
  - a. 6 hours
  - b. 24 hours (1 day)
  - c. 12 hours
  - d. 36 to 72 hours (2 to 3 days)
5. What is the term defined as "exercise of low intensity at a heart rate below 150 beats per minute during which glucose and fatty acids are the primary fuels. Walking, trotting and slow cantering."
  - a. Sprinting
  - b. Muscle hypertrophy
  - c. Anaerobic work
  - d. Aerobic work
6. What is the condition where the hoof wall separates only at the toe?
  - a. Quarter crack
  - b. White line disease
  - c. Seedy toe
  - d. Sheared toe
7. What is the name for the structure in the abdomen that is multilayered, horned, and is supported by the broad ligaments?
  - a. Kidneys
  - b. Uterus
  - c. Ampulla
  - d. Adrenals
8. What is the term for cannon bones that are not centered in the knee, or are offset when viewed from the front?
  - a. Calf-kneed
  - b. Buck-kneed
  - c. Sickle-kneed
  - d. Bench-kneed
9. What material should be used as a primary layer when bandaging a wound?
  - a. Elasticon
  - b. Vet wrap
  - c. Plain sterile gauze square
  - d. Non-stick sterile pad
10. Which type of horse show class does NOT use a "pattern"?
  - a. Showmanship
  - b. Pleasure driving
  - c. Reining
  - d. Western Horsemanship
11. Which of the following is a NOT hormone?
  - a. Insulin
  - b. Vasopressin
  - c. Oxytocin
  - d. Glutathione
12. Which of these is a carbohydrate?
  - a. Glucose
  - b. Propionate
  - c. Glutamine
  - d. Zinc
13. Which of the following is not a function of the epididymis?
  - a. Spermatozoa maturation
  - b. Storage of sperm cells
  - c. Spermatogenesis
  - d. All are functions of the epididymis
14. What does the term re-set or re-shod mean?
  - a. The farrier used the same set of shoes a second time
  - b. The farrier had to realign the offset shoe
  - c. The horse continues to have the same hoof problem after corrective shoes have been put on
  - d. The farrier made a mistake and had to do the job over again
15. What can negate an Equine Activity Liability Law?
  - a. Liability Insurance
  - b. Locks on entrance gates
  - c. Negligence
  - d. Older horses

16. The first phalanx is just below what long bone?
  - a. Cannon Bone
  - b. Navicular Bone
  - c. Short Pastern Bone
  - d. Coffin Bone
17. Why do horses that "Tie-Up" sometimes have dark colored or coffee colored urine?
  - a. They are dehydrated and their urine is concentrated
  - b. The color is the result of blood in the kidneys
  - c. High levels of circulating potassium
  - d. Myoglobin is released from damaged muscles
18. When the horse's lower arcade is oriented more forward than the upper arcade the horse is referred to as:
  - a. Parrot Mouthed
  - b. Monkey Mouthed
  - c. Occluded Mouthed
  - d. Wave Mouthed
19. What part of the body secretes estrogens?
  - a. Ovaries
  - b. Pituitary
  - c. Corpus hemorrhagicum
  - d. Uterus
20. What is the common term for horses that are "over at the knees" when viewed from the side?
  - a. Base narrow
  - b. Buck-Kneed
  - c. Base wide
  - d. Knock-Kneed
21. What piece of tack is commonly used in foxhunting and cross country to hold the saddle in place?
  - a. Back girth
  - b. Chambon
  - c. Breastplate
  - d. Running Martingale
22. Strongyle (bloodworms) eggs are shed in feces and develop into larvae on the pasture. What environmental factors would cause the larvae to die off?
  - a. High humidity
  - b. Direct sunlight
  - c. Temperatures between 45° and 85° F
  - d. Temperatures above 85° F
23. Spasmodic muscle contractions caused by cold weather are referred to as what?
  - a. HYPP
  - b. Cramping
  - c. Seizure
  - d. Shivering
24. What kind of insurance pays you if your horse is injured and is unable to fulfill its intended use?
  - a. Mortality Insurance
  - b. Equine Major Medical Insurance
  - c. Liability Insurance
  - d. Loss of Use Insurance
25. What type of procedure partially seals the vulva to prevent air or debris from being sucked into the reproductive tract of the mare?
  - a. Tie-back
  - b. Cauterization
  - c. Caslick's
  - d. Closure
26. What is the term for a horse weak in its coupling and shallow in the flank?
  - a. Ewe Necked
  - b. Roach backed
  - c. Hound gutted
  - d. Sway backed
27. What is the minimum height for perimeter fencing for horses (not including stallions)?
  - a. 3 ft
  - b. 5ft
  - c. 4 ft
  - d. 6 ft
28. Which hormone is overproduced in horses with Equine Cushing's Disease?
  - a. ACTH
  - b. Leptin
  - c. Insulin
  - d. Oxytocin
29. When do the **permanent** second incisors erupt?
  - a. 1 year of age
  - b. 3 ½ years of age
  - c. 2 ½ years of age
  - d. 4 years of age
30. The average adult horse at maintenance requires \_\_\_\_% of its body weight in feed per day.
  - a. 1.0 to 1.5
  - b. 3.0 to 4.5
  - c. 2.0 to 2.5
  - d. 4.0 to 5.5
31. Most foals are born within \_\_\_ to \_\_\_ minutes of the mare going into hard labor.
  - a. 5, 10
  - b. 45, 60
  - c. 20, 30
  - d. 60, 90
32. What are the panniculus muscles?
  - a. The muscles under the skin that can shake off a fly
  - b. The muscles in the muzzle that can pick up feed
  - c. The muscles that allow the ears to rotate
  - d. The muscles that control the arytenoids

33. What is NOT a major factor predisposing a growing horse to any development orthopedic disease?
- Rapid growth
  - Trauma to bone growth plates
  - Nutritional imbalances
  - Dystocia at the time of birth
34. What is the life cycle of a fly?
- Pupa, egg, larva, adult
  - Larva, hatchling, pupa, adult
  - Egg, larva, pupa, adult
  - Egg, pupa, larva, adult
35. During the birth of a foal, with a normal presentation, what should you see coming out of the mare first?
- The nose
  - The front feet with the soles pointing up at the mare's tail head
  - The front feet with the soles pointing down at the mare's hocks
  - The back feet with the heels pointing down at the mare's hocks
36. The anterior pituitary is part of what physiological system?
- Digestive System
  - Respiratory System
  - Endocrine System
  - Urinary System
37. What is the vector for Lyme's disease?
- Opossums
  - Ticks
  - Nose to nose contact
  - Contaminated water
38. What is the first task to accomplish when starting a horse business?
- Buy land
  - Acquire top quality horses
  - Develop a business plan
  - Take out a loan
39. What is the average stride length for the horse's canter or lope?
- 6 feet
  - 4 feet
  - 12 feet
  - 18 feet
40. At what age do the 1<sup>st</sup> premolars erupt?
- 1 to 2 months
  - 1 to 2 years
  - 5 to 6 months
  - 5 to 6 years
41. Which of these feeds is a good source of fermentable fiber?
- Beet Pulp
  - Cottonseed Meal
  - Corn Oil
  - Soybean Meal
42. Which is not a symptom of healthy mucus membranes?
- Moist
  - Cold
  - Pink
  - Quick capillary refill
43. What is the normal length of gestation in the mare?
- 335 to 350 days
  - 115 to 175 days
  - 350 to 365 days
  - 210 to 250 days
44. What is the average temperature of properly composted manure and stall waste?
- 30° F
  - 140° F
  - 70° F
  - 240° F
45. What is the approximate heart rate during galloping exercise?
- 30-40 beats/minute
  - 100-150 beats/minute
  - 200-250 beats/minute
  - 300-350 beats/minute
46. A male foal shows a genetic trait that is known to be on the X chromosome. Which parent did the foal inherit the trait from?
- The sire
  - The dam
  - This is a genetic mutation
  - There is no way of knowing
47. What is nephritis?
- Joint pain
  - Colic
  - Inflammation of the kidneys
  - Inflammation of the brain
48. What type of muscle fibers are considered slow-contracting or slow-twitch fibers?
- Type I
  - Type IIB
  - Type IIA
  - Type III
49. Which of the following is a type of salivary gland?
- Adrenal
  - Pineal
  - Parotid
  - Thyroid
50. Where is the primary site of fat digestion in horses?
- Pancreas
  - Stomach
  - Small Intestine
  - Large Intestine

51. Why is lime added to pastures or hayfields?
- Increase soil acidity
  - Increase moisture content
  - Reduce soil acidity
  - Reduce phosphorus levels
52. What kind of insurance protects you if someone is injured by your horses?
- Mortality Insurance
  - Equine Major Medical Insurance
  - Liability Insurance
  - Loss of Use Insurance
53. What does HYPP stand for?
- Hyperkalemic Periodic Paralysis
  - Hyperkalemic Periodic Potassium
  - Hypokalemic Periodic Paralysis
  - Hypokalemic Persistent Paralysis
54. How much time do horses typically spend grazing if housed on pasture full time?
- 3 to 6 hours/day
  - 10 to 17 hours/day
  - 5 to 10 hours/day
  - 21 to 24 hours/day
55. Which discipline does the training technique "breezing" apply to?
- Cutting
  - Hunting
  - Dressage
  - Racing
56. The gaskin is located between which two joints of the horse's rear leg?
- Hock and Pastern
  - Stifle and Hock
  - Hip and Stifle
  - Elbow and Knee
57. What is the most important step to parasite control?
- Let horses have access to natural water supplies
  - Use fly spray
  - Deworm your horses once a year
  - Sound manure management
58. Monocular vision allows horses to do what?
- Judge distances
  - See directly in front of the head
  - See areas to each side of the body
  - See in color
59. During exercise which electrolytes are primarily lost in sweat?
- Potassium and Calcium
  - Potassium and Magnesium
  - Sodium and Magnesium
  - Sodium and Potassium
60. How many pairs of chromosomes does a horse have?
- 26
  - 64
  - 32
  - None of the above
61. What highly distensible muscle provides a barrier between the vagina and the uterus?
- Cervix
  - Infundibulum
  - Vulva
  - The uterine bifurcation
62. Which is NOT a major endocrine organ?
- Pancreas
  - Thyroid
  - Testes
  - Heart
63. How many teeth does a male horse generally have?
- 20 to 22
  - 36 or 38
  - 30 or 32
  - 40 or 42
64. What disease is characterized by an excessive breathing noise usually heard during exercise caused by an upper airway obstruction?
- Laryngeal Hemiplegia (Roaring)
  - Exercise Induced Pulmonary Hemorrhage (EIPH)
  - Recurrent Airway Obstruction (Heaves)
  - Chronic Obstructive Pulmonary Disease (COPD)
65. What type of drug increases the excretion of urine after administration?
- Non-Steroidal Anti-Inflammatory Drug
  - Anabolic Steroid
  - Anthelmintic Drug
  - Diuretic
66. Which of these feeds is highest in starch?
- Alfalfa
  - Oats
  - Beet Pulp
  - Soy Oil
67. What type of stimulus is learned through practice?
- Conditioned
  - Reinforced
  - Massed
  - Unconditioned
68. President Ulysses S. Grant was the first to establish a purebred breeding program in the United States for which breed?
- Morgan
  - Hanoverian
  - Clydesdale
  - Arabian

69. Horses that are insulin resistant have chronically high levels of \_\_\_\_\_?
- Glucose
  - ACTH
  - Insulin
  - Androgens
70. What should be done for an older horse if they present with reduced renal function?
- Feed less alfalfa hay
  - Feed more alfalfa hay
  - Feed calcium supplements
  - Nothing can be done for these animals
71. Insulin Resistance is associated with which disease?
- Colic
  - HYPH
  - Exertional Rhabdomyolysis
  - Laminitis
72. What is the normal breathing rate for horses at rest?
- 2 to 6 times per minute
  - 8 to 16 times per minute
  - 20 to 30 times per minute
  - 40 to 60 times per minute
73. After exercise, a warm down period is suggested to remove what metabolic by-product from the muscle?
- Myoglobin
  - Leukocytes
  - Lactic Acid
  - All of the above
74. Compression of the large venous plexuses within the hoof causes what?
- A reflex reaction to lift the leg
  - Abscess
  - The pumping of blood back up the leg
  - Bruised sole
75. Mares are considered seasonally polyestrous, what causes them to start cycling in the correct "season"?
- Amount of daylight
  - Weaning of last year's foal
  - Ambient temperature
  - Presence of a stallion
76. What is the ideal slope of the horse's shoulder?
- 20 to 25 degrees
  - 70 to 75 degrees
  - 45 to 50 degrees
  - 100 to 105 degrees
77. Which is NOT a type of overo coat color?
- Frame
  - Sabino
  - Frost
  - Splashed White
78. Which of the following would result in elimination from a hunter over fences class?
- 2 faults
  - First refusal
  - 4 faults
  - Third refusal
79. What is outcrossing?
- Mating animals that are the same breed but show no relation for a least 4 generations
  - Mating animals that have at least one parent in common
  - Mating a male horse with a female donkey
  - Mating a thoroughbred to a quarter horse
80. A horse trailer should be at least \_\_\_\_\_ inches higher than the horse's head at resting position?
- 2 ft
  - 6 inches
  - 18 inches
  - 10 inches
81. What are not criteria in judging conformation?
- Behavior
  - Bloodlines
  - Color
  - All of the above
82. What type of muscle is striated and voluntarily stimulated to contract?
- Smooth Muscle
  - Cardiac Muscles
  - Skeletal Muscle
  - None of the above
83. What is the general term used for the last 10 pairs of ribs that are not connected to the sternum?
- Hind ribs
  - Back Ribs
  - Floating Ribs
  - Dislocated Ribs
84. What is the minimum width for a horse stall door opening?
- 2 ft
  - 6 ft
  - 4 ft
  - 8 ft
85. \_\_\_\_\_ is the amount of air inspired or expired during a normal breath.
- Minute Volume
  - Respiratory Frequency
  - Tidal Volume
  - Volume Frequency

86. What type of parasite goes through the body of the horse by being ingested, hatching in the intestinal tract, burrows into the wall of the intestine where they invade veins, and travels through organs to the lungs. They are then coughed up, re-swallowed and lay eggs back in the gut.
- Bot Flies
  - Roundworms
  - Pinworms
  - Tapeworms
87. Rhinopneumonitis is a disease caused by what virus?
- Equine Herpes Virus
  - Streptococcus equi
  - Equine Arteritis Virus
  - Rotavirus
88. What are the two most important sources of energy for exercise?
- Amino Acids and Glycogen
  - Fat and Protein
  - Fat and Glycogen
  - Protein and Glycogen
89. In reference to directional terms, what is the opposite of rostral?
- Cranial
  - Caudal
  - Dorsal
  - Proximal
90. Which of the following is not a hinge joint?
- Carpal joint
  - Hock joint
  - Elbow joint
  - Hip joint
91. COPD is a disorder of the \_\_\_\_\_.
- Digestive System
  - Reproductive System
  - Nervous System
  - Respiratory System
92. Which part of the endocrine system primarily controls metabolic rate?
- Adrenal Gland
  - Thyroid Gland
  - Lacrimal Gland
  - Vomeranasal Gland
93. Luteinizing Hormone (LH) does all of the following except \_\_\_\_\_.
- Stimulates ovulation
  - Stimulates the growth of follicles
  - Stimulates the production of testosterone
  - Supports the initial stages of corpus luteum development
94. What bacterial disorder involves production of toxins that result in paralysis, rigidity of muscle and often death?
- Equine Protozoal Myeloencephalitis
  - Equine Herpes Virus
  - Tetanus
  - West Nile Virus
95. The horse has a pupil that is more horizontal in orientation than in many other animals. The horizontal pupil allows for:
- Better night vision
  - Better focus on a given object
  - Greater vision over a wide horizon
  - Greater ability to discern subtlety in colors
96. Which of the following correctly applies to the earliest horse?
- Swamp browser
  - Prairie grazer
  - Forest browser
  - Swamp grazer
97. What is the term for a chemical substance produced by fungi or mold that inhibits or destroys bacteria or other micro-organisms and is used primarily in the treatment of infectious diseases?
- Antigen
  - Toxin
  - Antibiotic
  - Antitoxin
98. This condition in newborn foals is caused when the antibodies transmitted via colostrum to the foal destroy red blood cells in the foal.
- Hemolytic destroyia
  - Hemolytic erythrolysis
  - Neonatal hemolymphoma
  - Neonatal isoerythrolysis
99. In a cutting competition, the horse and rider must demonstrate their ability to "cut" cattle and prevent them from returning to the herd. What is the time limit in the contest?
- Two minutes
  - One minute
  - Two minutes and thirty seconds
  - Three minutes
100. Pasture management guidelines recommend that horses be rotated to another pasture when the grass is a minimum of what height?
- Minimum of 2-3 inches
  - Minimum of 1-2 inches
  - Minimum of 4-5 inches
  - Minimum of 3-4 inches