

**Bubble in the most correct answer on the exam section on the front of your scantron**

1. What is the correct order, from head to tail, for the regions of a canine vertebral column?
  - A. cervical, thoracic, lumbar, sacral, and coccygeal
  - B. Cervical, thoracic, lumbar, caudal, and sacral
  - C. Cranial, thoracic, lumbar, sacral and caudal
  - D. Coccygeal, thoracic, lumbar, sacral and cervical
  
2. What part of a bird's gastrointestinal system stores and softens food before it reaches the stomach?
  - A. Ventriculus
  - B. Cloaca
  - C. Crop
  - D. Furcula
  
3. Which compartment of the heart forces the blood into the systemic circulation?
  - A. right ventricle
  - B. left ventricle
  - C. right atrium
  - D. left atrium
  
4. Which is a function of the pancreas?
  - A. fat digestion
  - B. fiber degradation
  - C. bile production
  - D. HCl production
  
5. During inspiration, what does the diaphragm do?
  - A. contracts, drawing it closer to the thorax
  - B. contracts, drawing it closer to the abdomen
  - C. relaxes, allowing the chest to expand
  - D. relaxes, lowering the pressure in the chest
  
6. To properly apply a splint for a radial/ulnar fracture in a dog, which joints must be immobilized to provide fracture stability?
  - A. carpus and elbow
  - B. shoulder and elbow
  - C. metacarpus and elbow
  - D. tarsus and elbow
  
7. What is the medical term for eardrum?
  - A. Eustachian membrane
  - B. Descemet's membrane
  - C. Nictitating membrane
  - D. Tympanic membrane
  
8. Which is produced in the medulla of the adrenal gland?
  - A. Aldosterone
  - B. Epinephrine
  - C. Insulin
  - D. Cortisol

9. What establishes the basic rhythm of the mammalian heart, also known as the pacemaker?
- A. Papillary muscles
  - B. Bundle of His
  - C. Atrioventricular node
  - D. Sinoatrial node
10. Which term means “abnormal accumulations of fluid in the abdomen”?
- A. Ascites
  - B. Atresia
  - C. Achalasia
  - D. Ascariasis
11. A cataract is a cloudiness of what part of the eye?
- A. Lens
  - B. Retina
  - C. Choroid
  - D. Cornea
12. What organ stimulates the pituitary gland to act?
- A. Hypothalamus
  - B. Neurohypophysis
  - C. Hypophysis
  - D. Hypothalamus
13. Which is not accurate regarding added fiber?
- A. helps with diarrhea
  - B. causes increase in flatulence
  - C. helps with constipation
  - D. causes decrease in volume of feces
14. What nutrient is not a potential source of energy?
- A. protein
  - B. fat
  - C. carbohydrate
  - D. mineral
15. What vitamin affects calcium and phosphorus metabolism?
- A. Vitamin K
  - B. Vitamin E
  - C. Vitamin D
  - D. Vitamin A
16. What exotic animal typically ingests their own feces that are high in proteins, minerals, and B vitamins?
- A. Rabbits
  - B. Guinea Pigs
  - C. Ferrets
  - D. Mice
17. Which term means “eating or licking abnormal substances”?
- A. Ptyalism
  - B. Quidding
  - C. Pica
  - D. Deglutition

18. Which term indicates difficult or labored breathing?
- A. Bradycardia
  - B. Bradypnea
  - C. Dyspnea
  - D. Hyperpnea
19. In protein metabolism, ammonia is converted to urea in what organ?
- A. kidney
  - B. liver
  - C. spleen
  - D. small intestine
20. What is not something that occurs in cats with taurine deficiency?
- A. heart muscle degeneration
  - B. poor reproductive performance
  - C. blindness
  - D. deafness
21. Which should be avoided when choosing treats for a rabbit?
- A. lettuce
  - B. carrots
  - C. apple
  - D. grass hay
22. What is one reason why large breed puppies should eat large breed puppy food?
- A. the kibble is larger which decreases the choking hazard
  - B. it is more energy dense to support rapid growth
  - C. it has a higher calcium level to reduce the risk of bone deformities
  - D. large breed puppies require a different set of nutrients than small breed puppies.
23. Which of the following is not a role of sodium?
- A. nerve transmission
  - B. fluid regulation
  - C. acid-based balance
  - D. hemoglobin formation
24. Which vitamin is water soluble?
- A. Vitamin A
  - B. Vitamin B
  - C. Vitamin E
  - D. Vitamin K
25. Which of the following is an example of passive immunity?
- A. a pup drinking colostrum
  - B. a kitten drinking milk replacer
  - C. a dog vaccinated subcutaneously against rabies
  - D. a dog vaccinated intranasally against *Bordetella*
26. Which of the following is not a characteristic of a malignant neoplasm?
- A. clearly defined edges
  - B. potential for metastasis
  - C. invades surrounding tissue
  - D. grows quickly

27. Ethylene glycol can cause severe damage to which organ?
- A. liver
  - B. kidney
  - C. pancreas
  - D. ovary
28. What is generally NOT considered a congenital anomaly?
- A. umbilical hernia
  - B. six toes on both front paws
  - C. cleft palate
  - D. arthritis
29. Which test is used to evaluate corneal injury?
- A. Fluorescein dye
  - B. Schirmer tear test
  - C. Intraocular pressure
  - D. Menace response
30. Which is not an example of a fomite?
- A. water bowl
  - B. rope toy
  - C. bottle nipple
  - D. face fly
31. Which term describes the telescoping of the bowel onto itself?
- A. Impaction
  - B. Inguinal hernia
  - C. Intussusception
  - D. Inception
32. Which is/are NOT included in the six major classifications of diseases?
- A. toxins, trauma
  - B. nutrition, neoplasm
  - C. degenerative
  - D. mutations
33. Which instrument is used to measure blood pressure?
- A. centrifuge
  - B. refractometer
  - C. tonometer
  - D. sphygmomanometer
34. What does pyometra mean?
- A. infection with pus in the uterus
  - B. abnormally formed uterus
  - C. increased temperature of the uterus
  - D. fluid in the uterus
35. What is the only class of immunoglobulins that can cross the placenta?
- A. IgA
  - B. IgE
  - C. IgG
  - D. IgM

36. Which is a disadvantage of using a killed vaccine compared to a modified live vaccine?
- A. has to be reconstituted
  - B. shorter duration of protection
  - C. easily inactivated with sunlight
  - D. not safe in pregnant animals
37. In fish, what egg-layer group provides no parental care of their young?
- A. egg-buriers
  - B. egg-depositors
  - C. mouth brooders
  - D. nest-builders
38. What is the first milk produced by the mother?
- A. lactose
  - B. lactulose
  - C. casein
  - D. colostrum
39. When evaluating semen, what factor is most important?
- A. the time of day the semen is collected
  - B. the brand of equipment used for collection
  - C. the magnification of the microscope
  - D. the temperature of the microscope slide
40. A surge in what hormone causes ovulation?
- A. Prostaglandin
  - B. Progesterone
  - C. Luteinizing hormone
  - D. Corpus luteum
41. Which hormone is essential to maintaining a pregnancy?
- A. Progesterone
  - B. Luteinizing hormone
  - C. Relaxin
  - D. Oxytocin
42. What word describes the uterus shrinking back to its normal size after parturition?
- A. Anestrus
  - B. Prolapse
  - C. Involution
  - D. Pyometra
43. What is the term used to describe the birth process in rabbits?
- A. Farrow
  - B. Freshen
  - C. Kidding
  - D. Kindling
44. What is true about a taper needle?
- A. it cannot be used for delicate tissue
  - B. there are typically 2-3 sharp edges
  - C. it pierces, not cuts, through tissue
  - D. it doesn't come in swaged form

45. When expressing anal glands, in what position would you place your fingers on either side of the rectum?
- A. twelve o'clock and six o'clock
  - B. two o'clock and ten o'clock
  - C. three o'clock and nine o'clock
  - D. five o'clock and seven o'clock
46. Pacing, inability to settle, and self-mutilation are least likely to be clinical signs of what?
- A. storm phobia
  - B. hypothyroidism
  - C. separation anxiety
  - D. confinement distress
47. What should an owner avoid when managing a pet with separation anxiety?
- A. food toys
  - B. music
  - C. shock collar
  - D. white noise machine
48. Which task does not help prevent ammonia from reaching harmful levels in an aquarium?
- A. changing filters regularly
  - B. avoiding overpopulation
  - C. avoiding changing the water
  - D. feeding only what the fish will eat daily
49. Which of the following would not cause brown or orange stains on surgical instruments?
- A. Ammonia
  - B. Chlorohexadine
  - C. Saline
  - D. Laundry soap
50. Proper sanitation of a birdcage is important in preventing all of the following diseases except what?
- A. rickets
  - B. colibacillosis
  - C. bumblefoot
  - D. intestinal parasitism

## 2019 MN FFA Small Animal/ Veterinary Science Exam Key

1. A
2. C
3. B
4. A
5. B
6. A
7. D
8. B
9. D
10. A
11. A
12. A
13. D
14. D
15. C
16. A
17. C
18. C
19. B
20. D
21. A
22. C
23. D
24. B
25. A
26. A
27. B
28. D
29. A
30. D
31. C
32. D
33. D
34. A
35. C
36. B
37. A
38. D
39. D
40. C
41. A
42. C
43. D
44. C
45. D
46. B
47. C
48. C
49. A
50. A