

1. This term refers to a collection of pus (dead white blood cells) that has accumulated in a cavity formed by the tissue due to an infection or other foreign material.
 - *A Abscess
 - B Slab
 - C Antigen
 - D Bruise

2. An immature male of the equine species:
 - A Stallion
 - *B Colt
 - C Mare
 - D Foal

3. Poultry rely on a _____, a strong muscular organ that may contain grit, to grind their food.
 - *A gizzard
 - B gosling
 - C gaggle
 - D gander

4. Which of these is the scientific name for hookworm?
 - A Dipylidium caninum
 - B Toxocara canis
 - *C Ancylostoma caninum
 - D None of these

5. An otherwise healthy veterinary technician, Anna, is bitten by a 2-year-old mixed-breed dog, "Tow Tow," while restraining him for a pedicure. The bite does not cause severe tissue damage, but the canine teeth penetrate her skin and she does bleed. Tow Tow is current on all of his vaccinations including rabies. He lives primarily in the backyard of his owner's suburban home. What is the best, first action Anna should take following the bite?
 - A Tell a coworker about it, but take no more action regarding the incident.
 - *B Wash the wound immediately with soap and water, then with povidone-iodine, and follow with a thorough irrigation with water, then inform the veterinarian or office manager.
 - C Ignore the bite until she has time to wash it, even though this may not be for a few hours. Once there is time, also inform the veterinarian or office manager.
 - D Wait until she gets home and clean the wound, without notifying the veterinarian because she fears she will be reprimanded.

6. A veterinarian in a critical care unit determines that one calf was given the following intravenous (IV) solutions in a 24 hour period: 745 milliliters (mL) of 0.9% normal saline, 420 mL of lactated ringers, 1,250 mL of 5% dextrose, and 15 mL of an antibiotic solution. How many total milliliters of IV solution did the patient receive?
 - *A 2430 mL
 - B 3430 mL
 - C 4430 mL
 - D 1430 mL

7. You are doing maintenance on an anesthesia machine. You happen to notice that the granules in the canister are starting to turn purple. What does this usually indicate?
- *A The granules have lost the ability to absorb carbon dioxide.
 - B The granules should be turned over in the canister – they will regain
 - C The granules are more than 90 days old.
 - D The granules have lost the ability to absorb anesthetic gases.
8. In most species, what are the kidneys shaped like?
- A Pears
 - *B Beans
 - C Clovers
 - D Circles
9. If Sammy had noticed an increased specific gravity, it could indicate all of the following EXCEPT:
- *A chronic renal disease
 - B dehydration
 - C decreased water intake
 - D acute renal disease
10. For safety, two people are required to lift anything weighing more than _____ lb.
- A 30
 - B 10
 - *C 40
 - D 20
11. Your chicken has a heart rate of 275 beats per minute. Is that something to be worried about?
- A Yes, that is above normal.
 - B No, that is below normal.
 - C Yes, that is below normal.
 - *D No, that is normal.
12. Which of the following bedding materials is most commonly used in the small animal clinic?
- A Pine Shavings
 - B Straw
 - C Blankets and Towels
 - *D Newspaper
13. The capillary refill time (CRT) for Buddy is 1 second. In the patient chart, the CVA records that the CRT for Buddy is:
- A Abnormally high
 - B Abnormally low
 - *C Normal
 - D Not enough information to record
14. Symptoms of distemper include:
- A Lameness
 - B Swollen joints
 - C Aggression
 - *D Fever, vomiting, diarrhea, nasal secretions, and seizures

15. What does IBR stand for?
A Infectious Born Respiration
B Indefinitely Bad Respiration
***C Infectious Bovine Rhinotracheitis**
D Infectious Bovine Respiration
16. A secretary maintains the accounts and writes the paychecks for a veterinary facility. Eight veterinary technicians earn \$13 per hour. If everyone works 40 hours per week, what is the total amount of money needed for the payroll each week?
A \$5060
B \$3160
C \$4060
***D \$4160**
17. An animal that is comfortable with a halter on its head and that responds to the commands of the person who is leading it is said to be _____.
***A halter broken**
B show ready
C halter responsive
D domesticated
18. All telephone calls should be answered by the _____ ring.
A first
B seventh
***C third**
D fifth
19. To prevent inhaling gas when you are monitoring anesthesia, it is best for you to stand:
***A Away from the patient's head.**
B Outside of the room.
C Anywhere in the room.
D Close to the patient's head.
20. The only medical term for lying down is:
A Flexion
B Abduction
C Adduction
***D Recumbent**
21. What time of the day does the doctor typically do surgeries?
A Late Afternoon
B Lunch
C Evening
***D Early Morning**
22. Which of the following is NOT a function of the epididymis?
***A Site of decomposition for sperm.**
B Site of storage for sperm.
C Site of transportation for sperm.
D Site of maturation for sperm.

23. Adam has just assisted in restraining a Lhasa Apso for an IM injection. The RVT that gave the injection must now dispose of the needle and syringe. Where must all needles and syringes be disposed of?
- A A dumpster
 - B A trashcan
 - C A bottle
 - *D A sharps container**
24. Which of the following animals is NOT a cecal fermenter?
- A Rabbit
 - *B Pig**
 - C Horse
 - D Guinea Pig
25. A kitten is suffering from FCV. Feline calicivirus is caused by:
- A Bacteria
 - B Fungus
 - C Does not exist
 - *D RNA virus**
26. What can ONLY a veterinarian do:
- A Provide a diagnosis and a prognosis
 - B Prescribe medications
 - *C All of these**
 - D Perform surgery
27. What is the main difference between the testes of mammals and the testes of poultry?
- A Mammals have one testicle.
 - *B The testes of poultry do not descend out of the abdominal cavity.**
 - C The testes of mammals do not descend out of the abdominal cavity.
 - D Poultry have one testicle.
28. Indicate the tablets/capsules prescribed for the following order: Rx: Cephalexin capsules 250 mg -----
Sig: 2 caps P.O., STAT; then 1 cap P.O., BID x 14 days
- A 50 capsules
 - *B 30 capsules**
 - C 60 capsules
 - D 40 capsules
29. 0.2 L = _____ ml
- A 2000
 - *B 200**
 - C 20
 - D 2
30. James accidentally spilled bleach. In order to know the correct clean up procedure to take, he must check the MSDS. The acronym MSDS stands for:
- A Mechanical Safety Data Sheet
 - B Material Safety from Disease Sheet
 - *C Material Safety Data Sheet**
 - D Mechanical Safety Destruction Sheets

31. The _____ is characterized by having a red and white face (not less than 2/3 red, exclusive of face and ears), with at least 2 white feet, long face/snout, and small to medium erect ears.
- A Duroc
 - *B Hereford**
 - C American Landrace
 - D Berkshire
32. Which of the following is NOT a warning sign that your dog or cat may be inclined to bite?
- A Crouching with tail between legs
 - B Assuming submissive posture
 - C Snarling, with fur on the back raised
 - *D Ears held back, tail wagging quickly**
33. A bacteria or virus that causes clinical disease:
- *A Pathogen**
 - B Antigen
 - C Founder
 - D Strangles
34. A veterinary technician uses 1/2 oz, 3/4 oz, and 5/8 oz of solution to perform three urinary analysis tests. How much total solution does she use?
- *A 1 7/8 oz**
 - B 1 3/4 oz
 - C 1 1/2 oz
 - D 1 oz
35. Sugar, a small dog, has come into a veterinary clinic with sarcoptic mange. To prevent the spread of this and other zoonotic diseases, you need to:
- A wash hands often
 - *B All of these**
 - C dispose of waste in a proper manner
 - D isolate infected animals
36. What are the percentages of cells and plasma in blood?
- A 50% and 50%, respectively
 - B 30% and 70%, respectively
 - C 60% and 40%, respectively
 - *D 40% and 60%, respectively**
37. A veterinary technician is counting leukocytes (white blood cells). She counts four areas on the hemocytometer counting chamber, adds the four numbers together and then multiplies by 50 to obtain the correct leukocyte count. If the counts are 23, 27, 28 and 34 what is the correct leukocyte count?
- A 5800 leukocytes
 - B 5900 leukocytes
 - *C 5600 leukocytes**
 - D 5700 leukocytes

38. Which of the following is NOT a function of the uterus?
- A Contracts to expel the fetus during parturition.
 - B Incubates the fetus during pregnancy.
 - *C The receptacle for the penis during copulation.**
 - D Provides nourishment for the fetus.
39. One of the fastest means of getting drugs into the bloodstream is:
- A Orally
 - *B Intravenously**
 - C Intranasally
 - D Topically
40. Examination by tapping the surface to determine density of a body area is called:
- A tapping
 - *B percussion**
 - C auscultation
 - D palpation
41. Which of the following cattle breeds would be considered a dairy breed?
- A Polled Hereford
 - B Shorthorn
 - C Gelbvieh
 - *D Brown Swiss**
42. Which of the following is not a disease that affects dogs?~
- *A Black Leg**
 - B Distemper
 - C Hepatitis
 - D Rabies
43. Which of these is the correct flow of blood through the heart?
- A Left Atrium, Left Ventricle, Pulmonary Veins, Lungs, Pulmonary Arteries, Right Atrium, Right Ventricle, Aorta
 - B Right Atrium, Right Ventricle, Pulmonary Veins, Lungs, Pulmonary Arteries, Left Atrium, Left Ventricle, Aorta
 - C Left Atrium, Left Ventricle, Pulmonary Arteries, Lungs, Pulmonary Veins, Right Atrium, Right Ventricle, Aorta
 - *D Right Atrium, Right Ventricle, Pulmonary Arteries, Lungs, Pulmonary Veins, Left Atrium, Left Ventricle, Aorta**
44. Which zoonotic disease is fatal in humans?
- A Parvovirus
 - B Corona
 - *C Rabies**
 - D Scabies

45. An animal is being given a vaccine. Vaccine is defined as
- *A A suspension of killed or modified microorganisms that stimulate an immune response when introduced into the body
 - B Swelling and inflammation
 - C Having no resistance to disease
 - D More susceptible to disease
46. You regularly order six 10-ml vials per month of a drug that has a concentration of 50 mg/ml. Now that same drug is only available in 20-ml vials of 10 mg/ml. How many vials should you order this month?
- *A 15 vials
 - B 10 vials
 - C 20 vials
 - D 25 vials
47. Which of the following breeds of sheep is considered a fine wool breed?
- A Suffolk
 - B Hampshire
 - C Southdown
 - *D Rambouillet
48. What type of connective tissue connects muscles to bones?
- A blood
 - B cartilage
 - *C tendon
 - D ligament
49. A cow weighed 1,743 pounds prior to calving. The calf weighed 97 pounds and the placenta and amniotic fluid weighed 189 pounds. How much did the cow weigh after calving?
- A 1357 pounds
 - *B 1457 pounds
 - C 1557 pounds
 - D 1257 pounds
50. An eight month old Chihuahua was stung by a wasp and had a fluctuation in its heart rate. Which term describes its fluctuating heart rate?
- A Bradycardia
 - B Tachypnea
 - *C Arrhythmia
 - D Auscultation
51. A mature female of the galline species:
- *A Hen
 - B Ewe
 - C Sow
 - D Gilt
52. The clinical signs of heartworm are:
- A vomiting, deep cough, anemia
 - *B deep cough, irregular heart beat, exercise intolerance
 - C irregular heart beat, anemia, exercise intolerance
 - D anemia, deep cough, irregular heart beat

53. An immature female of the porcine species:
A Ewe
***B Gilt**
C Hen
D Sow
54. Jane is taking a dog's pulse. What is the name of the artery where she will do this?
A Facial artery
B Carotid Artery
***C Femoral artery**
D Brachiocephalic artery
55. What is the purpose of the infundibulum?
A To contract during labor.
B To expel the fetus.
***C To transport the egg from the ovary to the oviduct.**
D To give nourishment to the fetus.
56. The lab receives a prescription order from the veterinarian. He wants the patient to take 40 milligrams (mg) of amoxicillin four times a day for 25 days. The lab has 20 mg amoxicillin tablets. How many tablets should the veterinary technician give to the client for the 25-day period?
A 250 tablets
***B 200 tablets**
C 150 tablets
D 300 tablets
57. The order is for 500 mg of amoxicillin, and tablets on hand are 250 mg. How many tablets will be administered?
A 1 tablet
B 6 tablets
***C 2 tablets**
D 5 tablets
58. A normal capillary refill time (CRT) is:
***A 1-2 seconds**
B 4-5 seconds
C 3-4 seconds
D 5+ seconds
59. Six blood pressure readings are 115, 120, 123, 121, 121, and 112 mm Hg. What is the average value rounded to the nearest whole number?
A 104
B 124
***C 119**
D 113
60. Dystocia can be defined as:
***A Abnormal or difficult birth.**
B The process of giving birth.
C A birth in which the offspring enters the birth canal hind end first.
D The carrying of an embryo or fetus.
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61. When in the heart, heartworms congregate in the:
A Left ventricle
B Right atrium
C Left atrium
***D Right ventricle**
62. Which drug schedule has no current accepted medical use?
A Schedule II
B Schedule III
***C Schedule I**
D Schedule IV
63. 1000 mg = _____ g
***A 1**
B .001
C .01
D 10
64. Anemia is:
A A single celled animal.
B A disease that can be transmitted from animals to humans.
C The study of parasites.
***D A decrease in the number of red blood cells.**
65. A veterinary pharmaceutical company technician uses a 480-milliliter (mL) flask of rabies vaccine solution to fill individual vials. If each vial holds $\frac{1}{30}$ of the volume of the flask, how many mL of vaccine are in each vial?
A 18 mL
***B 16 mL**
C 14 mL
D 12 mL
66. A veterinary assistant must inventory all supplies each month. She counts the following number of thermometers: 4, 12, 7, 23, and 9. What is the total number of thermometers?
A 45 thermometers
B 60 thermometers
C 50 thermometers
***D 55 thermometers**
67. A veterinary technician is calculating the bill for hospital care for a cat which received a kidney transplant. The bill for medical services and care was \$2,685. The owners paid \$1,389 when they picked up the cat. A few weeks later they paid another \$497. How much do they still owe?
A \$1500
***B \$799**
C \$899
D \$999

68. Frank, a 60lb bulldog, needs to receive 60 mg of Prednisone once every other day for 10 days. How many total milligrams of Prednisone does Frank need for 10 days?
- A 900 mg
 - B 450 mg
 - C 100 mg
 - *D 300 mg**
69. Which of the following is most important to schedule first when making appointments?
- A Heartworm Checks
 - B Customer Preference
 - C Annual Appointments
 - *D Emergencies**
70. Ideally, a horse should be bedded on:
- A Straw
 - B Walnut shavings
 - C Newspaper
 - *D Wood shavings**
71. A 13-year old M/N domestic short hair (DSH) named Buttons has a bite wound in the right side of the mandible. The owner does not know when the cat got the bite wound because Buttons is an outside cat. He has not been eating or drinking the past few days, is lethargic, and on PE has a T= 103.5 degrees, HR = 180 bpm, and RR = 45 breaths/min. Other than the mandibular wound, he is healthy. He is current on vaccinations. The decision is made to sedate Buttons so that the wound can be clipped, cleaned, and debrided. You must calculate the dose of injectable anesthetic for Buttons, who weighs 12.5 lb. The dosage of Ketamine is 22 mg/kg IM. The concentration listed on the vial of ketamine is 100 mg/ml. The animal's weight in kg is?
- A 7.1 kg
 - B 2.4 kg
 - *C 5.7 kg**
 - D 9.9 kg
72. The Occupational Safety and Health Act of ____ established the Occupational Safety and Health Administration in the Department of Labor.
- *A 1970**
 - B 1972
 - C 1971
 - D 1969
73. Formalin is most commonly used for _____.
- A Disinfecting
 - B Flea prevention
 - *C Tissue biopsy**
 - D Copy machine toner
74. Giving birth in sheep is known as _____.
- A ramming
 - B kidding
 - C farrowing
 - *D lambing**

75. Which of the following disinfectants is toxic to cats?
A Bleach
***B Phenols**
C None of these
D Quats
76. Six 12 ounce puppies need deworming medication. If the dose is 1ml/lb, how many total ml do you need in order to deworm all of the puppies?
A 7.8 mls
B 6.9 mls
C 5.7 mls
***D 4.5 mls**
77. Which of the following animals would be classified as a Hound Breed?
***A Dachshund**
B French Bulldog
C Cocker Spaniel
D Chihuahua
78. Which of the following hazards is associated with radiography?
A None of these.
B Hearing loss
C Burns or scalds
***D Cancer**
79. In the last few hours I have noticed that my dog has been drooling excessively, especially since she never really drools. What could cause this?~
A oral ingestion of insecticides
B dental disease
C anxiety & nausea
***D All these**
80. All of the following are examples of hazards, except _____.
A Physical
B Chemical
C Zoonotic
***D Mental**
81. A veterinary assistant counts the exam gloves in each room and determines there are 338, 191, 87, 420, 206, and 76 gloves. What is the total number of gloves?
A 1118 gloves
***B 1318 gloves**
C 1218 gloves
D 1418 gloves
82. Which of these cells would Sammy NOT expect to see in an examination of urine sediment?
A Epithelial cells
B White blood cells
C Red blood cells
***D Viral cells**

83. Which of the following is the first of the five steps of the digestive process?
A Chemical
B Absorption
***C Mechanical**
D Peristalsis
84. Which of these is NOT part of the process of filtration of the blood through the urinary system?
A Medulla
B Kidney
***C Vena Cava**
D Nephrons
85. During an exam, Julie must take vital signs from an animal. Which of the following steps is the most correct procedure for her to take the rectal temperature?
A Wipe thermometer with alcohol, shake down thermometer, lubricate with petroleum jelly, gently insert and hold for 3 minutes, remove and rotate to read.
***B Shake down thermometer, lubricate with petroleum jelly, gently insert and hold for 3 minutes, remove and rotate to read.**
C Shake down thermometer, lubricate with petroleum jelly, gently insert and hold for 1 minute, remove and rotate to read.
D Wipe thermometer with alcohol, shake down thermometer, lubricate with petroleum jelly, gently insert and hold for 1 minute, remove and rotate to read.
86. The breed of swine that is characterized by being solid black with a white belt at the shoulder and small erect ears is the:
A Spots
B Hereford
C Duroc
***D Hampshire**
87. A steer weighed 1,145 pounds before harvest. One half of the carcass with forequarters weighed 393 pounds and one half of the carcass with rear quarters weighed 341 pounds. How much of the steer could not be consumed?
***A 411 pounds**
B 409 pounds
C 410 pounds
D 408 pounds
88. Which of the following substances is not considered a bio-hazardous substance?
A Microscope Slide
***B Syringe**
C Needle
D Scalpel blade
89. To remove a tick you should:
A Pour alcohol on the tick, then pull it off
***B Use tweezers to grasp the head and pull straight out**
C Cut the tick off with a knife
D Use a match to burn the tick off

90. A machine that spins samples very rapidly to separate elements based on weight is a:
A cannula
***B centrifuge**
C counter
D refractometer
91. What parasite transmits Lyme disease?
A *Dirofilaria immitis*
B Heartworm
C Lice
***D Tick**
92. Which of the following is not a function of the cervix?
A None of these.
B Serves as a passageway for semen during copulation.
***C Serves as a barrier for pathogens and prevents foreign material from entering the uterus.**
D Connects the vagina to the uterus.
93. _____ is essential for organ structure, nutrient transport and energy utilization.
A Sulfur
B Protein
***C Phosphorus**
D Calcium
94. Rascal, a 2 year old dog has a foul odor. What could be the cause?
A Any brownish material in his ears. He may have an ear infection.
***B All of these**
C His skin is dry and has bumps.
D He has tartar on his teeth or very red gums. His teeth need attention.
95. Which of the following answers best completes this statement? Temperature, pulse and respiration rates tend to _____ as size of the animal _____.
A shallow, decreases
***B increase, decreases**
C decreases slowly, decreases rapidly
D decreases, decreases
96. A vet diagnosed Bill's lamb with dyspnea. What does this mean?
***A The lamb has difficulty breathing.**
B The lamb has bluish discoloring of its skin.
C The lamb has abnormal heart sounds.
D The lamb has normal breathing.
97. In horses, when a fixed object is grabbed with the incisor teeth and air is drawn in repetitively through the mouth, is what:
A need of certain trace minerals
***B cribbing**
C boredom
D all of these

98. The level of fluid in the liter bags reads at the 700 mark. How much fluid has been given?
- A 700 ml
 - B 700 L
 - C 300 L
 - *D 300 ml**
99. What is cryptorchidism?
- A Process by which sperm are produced by the male.
 - B Sterile female calf born twin to a male calf.
 - *C Condition in which one or both testicles remain in the body cavity.**
 - D Causes destruction of the cotyledons of the uterus.
100. The term that means of, or relating to cats:
- A Galline
 - B Bovine
 - C Canine
 - *D Feline**
101. A female of the equine species that is four years of age or older:
- A Colt
 - B Stud
 - *C Mare**
 - D Foal
102. An animal is vaccinated for rabies. Rabies is caused by:
- *A A rhabdovirus**
 - B Fungus
 - C Bacteria
 - D Parvo virus
103. Dogs and humans are susceptible to a variety of water-borne parasites. How can dogs become infected?
- A all these
 - *B ingesting aquatic species**
 - C drinking pond water
 - D swimming
104. Cat litter pans and gardening are the most common sources for which protozoan?
- A Ancyloplasma
 - *B Toxoplasma**
 - C Coccidia
 - D Giardia
105. The bellyband should _____ slightly as it is wrapped.
- A Space out
 - B Cut off circulation
 - C Never touch
 - *D Overlap**

106. A microbiologist is staining bacterial slides. He uses a bottle of Gram stain that contains 144 milliliters (mL) of solution. If each slide requires 18 mL of the solution, how many slides can he stain with one bottle of solution?
- A 2 slides
 - B 6 slides
 - *C 8 slides**
 - D 4 slides
107. Evan is creating a poster over biohazards for his Veterinary Technology class. Which of these is NOT an example of a biohazard and therefore should not be included in his poster?
- A Needles
 - B Materials soaked with bodily fluids
 - *C None of these**
 - D Bandage material
108. A sexually mature female of the ovine species:
- A Gilt
 - B Filly
 - *C Ewe**
 - D Hen
109. Dana has been asked to dispense a schedule drug as a pain killer for an animal that has had a hip replacement. According to the Controlled Substance Act, she must:
- A understand the schedules that drugs are placed in and why.
 - *B All of these.**
 - C ensure that the name and amount of drug used is recorded in the daily log.
 - D have an authorized person unlock the locked cabinet where the drugs are stored.
110. With your veterinarian's permission, what medication can you give your dog if they have an allergic reaction?
- *A Benadryl**
 - B Frontline
 - C Advil
 - D Pepto-Bismol
111. The term that means of, or relating to cattle:
- A Galline
 - B Canine
 - *C Bovine**
 - D Feline
112. Which artery supplies blood to the head?
- A mesenteric
 - B renal
 - C iliac
 - *D carotid**

113. A veterinarian takes blood samples from cows for brucellosis testing. One morning he fills 16 vacutainers (vacuum tubes) with 10 cubic centimeters (cc) of blood, 31 with 9.5 cc of blood, 28 with 7 cc of blood, and 15 with 8.5 cc of blood. How many cc of blood did he obtain from all the cows?
- A 784 cc
 - B 780 cc
 - *C 778 cc**
 - D 782 cc
114. Linda is going to perform a laboratory test. Where is it possible for her to do this?
- *A All of these**
 - B Research facilities
 - C Veterinary hospitals
 - D Zoos
115. The roundworm is often described as looking like:
- A Leech
 - B Rice
 - *C Spaghetti**
 - D Flakes
116. Rabies is transmitted through:
- *A Saliva from the affected animal**
 - B Feces from the affected animal
 - C Blood from the affected animal
 - D Urine from the affected animal
117. Which of the following needles has the smallest bore?
- A 16 gauge
 - B 21 gauge
 - *C 25 gauge**
 - D 20 gauge
118. The amount of fecal matter needed for a canine or feline fecal analysis is approximately:
- *A The size of a grape**
 - B The size of a golf ball
 - C The size of a grapefruit
 - D The size of a baseball
119. The normal pulse (bpm) for a pig is:
- *A 70 bpm**
 - B 65 bpm
 - C 60 bpm
 - D 75 bpm
120. Which of the following is NOT a hazard that you would face while working in a veterinary clinic?
- A Biological hazards
 - B Physical hazards
 - *C Psychological hazards**
 - D Chemical hazards

121. If an animal was suffering from anaphylactic shock, it would be
- A Slippery white film
 - B Minerals in the blood stream
 - *C An exaggerated allergic response**
 - D Proteins produced by lymph system
122. Which of the following is not a primary action of testosterone?
- A Anabolic growth
 - B Promotes spermatogenesis
 - *C None of these**
 - D Promotes secretions from accessory glands
123. A sexually mature male of the equine species:
- A Mare
 - B Foal
 - C Colt
 - *D Stud**
124. The term that means of, or relating to horses:
- A Bovine
 - B Ovine
 - C Galline
 - *D Equine**
125. Which of these is a chemical that Sammy would NOT have evaluated in urine?
- A Ketones
 - *B Saline**
 - C Glucose
 - D Blood
126. A female that has not produced a calf:
- A Bull
 - B Steer
 - *C Heifer**
 - D Cow
127. Bone Marrow produces:
- A spongy bone
 - B calcium and phosphorus
 - C periosteum
 - *D blood cells**
128. A vet tech purchases a new uniform. She spends \$31 for the top, \$28 for the pants, \$56 for shoes, \$7 for socks, and \$4 for a name pin. What was her total cost?
- A \$146
 - *B \$126**
 - C \$136
 - D \$156

129. Referring to the lower or bottom view:
- *A Ventral
 - B Anterior
 - C Dorsal
 - D Cranial
130. In preparation for her CVA test, Mary is studying systems of the body. Which of these is NOT included in the circulatory system?
- A Blood Vessels
 - B Blood
 - C Heart
 - *D Lymphatics
131. If an animal has problems in the right side of the heart, what other problem will likely occur?
- A Nerve Degeneration
 - B Lung congestion
 - *C Ascites
 - D Osteoporosis
132. The study of disease causes is:
- A biology
 - *B etiology
 - C toxicology
 - D pathology
133. The percentage of RBCs in blood is called a:
- A crit
 - B hematocrit
 - *C All of these
 - D PCV
134. Which internal parasite is the most common in puppies and kittens?
- A Hookworm
 - B Whipworm
 - *C Roundworm
 - D Giardia
135. Translate the following into percents: 1:100
- *A 1%
 - B .05%
 - C .5%
 - D 1.5%
136. Which breed of dog is less likely to cause human allergies?
- A Heelers
 - B Chows
 - *C Schnauzers
 - D Spaniels

137. Which of these is NOT a disease-causing agent for zoonotic diseases?
- A Viruses
 - *B Biologics**
 - C Fungi
 - D Parasites
138. A good rule to follow when restraining animals for veterinary care is:
- A Never use ropes when restraining animals.
 - B Always apply the same amount of restraint: that which is usually tolerated by a member of the species being handled.
 - *C Apply the minimum effective amount of restraint that will keep the animal and personnel safe.**
 - D Apply the maximum amount of restraint possible to ensure the safety of all involved.
139. Luke, a border collie, has a problem in the left side of the heart. What other problem will likely occur?
- A Nerve Degeneration
 - *B Lung congestion**
 - C Osteoporosis
 - D Ascites
140. Which of the following acronyms is used when administering medication twice a day?
- A QID
 - *B BID**
 - C SID
 - D TID
141. live in a rural farming community where everyone owns some breed of dog. A few houses down from mine lives an Australian Cattle Dog (a.k.a. Blue Heeler) named Rigo. She is quite accustomed to guarding her territory against rodents, skunks, coyotes, and rabbits. Rigo was found with a half-eaten rabbit a few months ago and then gave birth to a litter of eight puppies a few weeks later. When they were old enough for their first set of vaccinations the veterinarian found that all the puppies were infested with hookworms. The veterinarian prescribed medication for all patients, including Rigo, and told my neighbor that they should be rechecked at their next visit. Rigo's hookworm infection could have been caused by which of the following?
- *A Both Direct and Indirect**
 - B Rigo does not have a hookworm infestation
 - C Direct – ingested larvae from the environment or contracted larvae through the skin
 - D Indirect – the rabbit could have been infected
142. Ben may have been exposed to a bacterial zoonotic disease. Which of the following is NOT a zoonotic disease caused by bacteria?
- A Anthrax
 - B Leptospirosis
 - C Tuberculosis
 - *D Toxoplasmosis**
143. You are restraining a Besenji dog for cephalic venipuncture. When the person performing the injection has placed the needle and is ready to inject the drug, he says to you, "Okay." He is most likely asking you to:
- A Verbally indicate that he has made contact with the vein
 - B Release the animal from restraint
 - *C Lift the thumb that is occluding the vein**
 - D Roll the vein in the opposite direction

144. Which breed of swine is characterized by being black in color with four white feet and/or legs, a short wrinkled snout, and medium erect ears?
- *A Berkshire
 - B Spots
 - C Hampshire
 - D Hereford
145. Which of the following is NOT included on a cage card?
- *A Time of day they need to go outside
 - B Pet Owner's Name
 - C Procedure
 - D Pet's Name
146. What is drenching?
- *A giving a liquid medication orally
 - B washing a sheep thoroughly
 - C hosing down a production facility
 - D milking a dairy goat too often
147. People who work with animals on a daily basis are _____ faced with potentially dangerous situations.
- *A Always
 - B Sometimes
 - C Never
 - D Rarely
148. Rabies is transmitted by:
- A Ingestion of fecal material from infected dog
 - B Bite from a tick
 - C Inhalation bacteria
 - *D Contamination of wound by saliva
149. OSHA was created in _____.
- A 1950
 - B 1980
 - *C 1970
 - D 1960
150. Indicate the minimum amount of tablets/capsules prescribed for the following order: Rx: Ascription tablets ----- Sig: 1 tab P.O., BID x 14 days then 1 tab BID prn
- A 16 tablets
 - B 20 tablets
 - C 24 tablets
 - *D 28 tablets
151. Pericardium is:
- A The muscular layer of the heart wall.
 - B A thin layer that lines the surface of the heart.
 - *C The fibrous sac that encloses the heart.
 - D A thin layer that lines the inside of the heart.

152. The veterinarian orders 4.4 mg/kg of Carprofen for pain control divided into two equal daily doses for a 50-lb dog. On hand are 100-mg scored tablets. How many tablets is/are administered each morning and afternoon?
- A .5 tablets in the morning and 1 in the afternoon
 - *B .5 tablets in the morning and afternoon**
 - C 5 tablets in the morning and 2 in the afternoon
 - D 1 tablet in the morning and afternoon
153. A veterinary technician notes that a dog's leukocyte (white blood cell) count before surgery was 18,645. Two days after the surgery, the patient had a leukocyte count of 8,968. What is the difference in the leukocyte counts?
- A 9577
 - B 1845
 - C 6977
 - *D 9677**
154. The study of disease causes:
- A Pathology
 - *B Etiology**
 - C Caudal
 - D Anatomy
155. What are the primary functions of the hormones that the ovaries produce?
- *A Sexual behavior and maintenance of pregnancy.**
 - B To give a deeper voice and more defined muscles.
 - C To maintain weight and pregnancy.
 - D To give secondary male characteristics and maintain weight gain.
156. What is IBR?
- A Causes destruction of the cotyledons of the uterus.
 - B Sterile female calf born twin to a male calf.
 - C Condition in which one or both testicles remain in the body cavity.
 - *D Viral disease of the respiratory tract that can cause abortion.**
157. The act of giving birth in horses:
- A Laying
 - B Farrowing
 - C Whelping
 - *D Foaling**
158. If you had a horse that had a 102.4°F, would you be concerned?
- A No, it is completely normal.
 - B Yes, it is extremely below normal.
 - *C Yes, it is above normal.**
 - D No, it is a little below normal.
159. Which of the following is a sign of someone using non-verbal communication to express joy?
- A Frown
 - B Hand Shake
 - *C Smiling**
 - D Crossed Arms
-

160. Which of the following would be considered a brachycephalic breed?
- *A **Shih Tzu**
 - B Dachshund
 - C Labrador Retriever
 - D Border Collie
161. Leptospirosis is caused by:
- A None of these
 - *B **Leptospira bacteria**
 - C DNA virus
 - D Borrelia burgdorferi bacteria
162. When working in a veterinary clinic, you understand that the guidelines set forth by the Occupational Safety and Health Administration are based on the principle of:
- *A **The Right to Know**
 - B The Basis of Knowledge
 - C The Determination of Knowledge
 - D The Right of the Knowledge of the Law
163. The five types of white blood cells are:
- A Neutrophil, erythrocyte, leukocyte, basophil, eosinophil
 - *B **Eosinophil, basophil, neutrophil, lymphocyte, monocyte**
 - C Neutrophil, basophil, eosinophil, granulocytes, acanthocyte
 - D Thrombocyte, monocyte, neutrophil, lymphocyte, eosinophil
164. Diseases that can be transmitted to humans are known as:
- A Malignant
 - *B **Zoonotic**
 - C Benign
 - D Contagious
165. When breathing stops:
- A Tachypnea
 - B Detomidine
 - *C **Apnea**
 - D Dyspnea
166. While Linda was running a laboratory test, she evaluated total plasma protein, and noticed an elevated total plasma protein. This is a sign of
- *A **All of these**
 - B dehydration
 - C infection
 - D inflammation
167. While cleaning an exam room, Abby uses a disinfectant. This is:
- A something that contaminates surfaces
 - *B **A chemical agent that kills, or inhibits the growth of microorganisms on inanimate objects.**
 - C a washcloth and hot water
 - D a chemical agent that allows that growth of microorganisms on inanimate objects

168. **The cardiovascular system is composed of:**
A heart, lungs and kidneys
B heart and lungs
C lungs and trachea
***D heart and blood vessels**
169. **A stethoscope is a common piece of equipment used for clinical exams. The stethoscope is used to listen to the heart, lungs, and _____.**
***A gastrointestinal sounds**
B murmurs
C pre-natal sounds
D water on the lungs
170. **Sammy is trying to run a urinalysis. He first has to obtain urine from the dog. How can he obtain urine from an animal?**
A Catheterization
B Cystocentesis
C Free Catch
***D All of these**
171. **Grass tetany is a result of:**
A Phosphorous deficiency
B Nitrogen deficiency
C Nitrogen overload
***D Magnesium deficiency**
172. **An MSDS must contain _____ sections.**
A 9
B 10
C 7
***D 8**
173. **Which of the following situations would be considered an emergency?**
A Flea Prevention
B Annual Check-Up
C Runny Stool
***D Urinary Blockage**
174. **A sexually mature male of the bovine species:**
A Heifer
B Steer
***C Bull**
D Cow
175. **Mary is studying the physiology of the body systems. Which of these is a function of the circulatory system?**
A Respiration for the body
***B Transportation of nutrients, blood cells, gases, etc.**
C Urination of waste products
D Protection of the body

176. The term that means of, or relating to swine:
- A Canine
 - B Galline
 - C Equine
 - *D Porcine**
177. In vivo vaccination involves injecting the vaccine into the _____.
- A pullet
 - *B embryo in the egg**
 - C hen's uterus
 - D newborn chick
178. Which of the following is NOT a method of disposing of dead birds in a poultry production facility?
- A composting
 - B burying
 - *C recycling**
 - D incineration
179. How long, on average, will a mature horse's hoof grow in a month?
- A .15-.25 inches
 - *B .25 -.38 inches**
 - C None of these
 - D .38-.5 inches
180. How many mgs of a drug should be given to a patient weighing 22 lb if the dose is 0.2 mg/kg?
- A 22.2 mg
 - *B 2 mg**
 - C 2.2 mg
 - D 22 mg
181. Lyme Disease is a disease caused by a spiral-shaped bacterium, *Borrelia burgdorferi*. Which of the following can become infected?
- A Birds & wild animals
 - B Horses & cattle
 - C Dogs & cats
 - *D All these**
182. Sammy found a decreased specific gravity in the urine. This could indicate all of the following EXCEPT:
- A increased water intake
 - B chronic renal disease
 - C other diseases
 - *D shock**
183. When a patient is having an ovariohysterectomy performed, the patient is placed in _____ recumbency.
- *A Dorsal**
 - B Ventral
 - C Lateral
 - D Sternal

184. **Microfilaria are:**
A None of these.
B The segment of the tapeworm containing the male and female reproductive organs.
***C The larval stage of the heartworm.**
D Microscopic single celled organisms.
185. **The operating room should be cleaned _____.**
***A Daily**
B Monthly
C Weekly
D Bi-weekly
186. **When an animal is presented with an abnormality cranial to a certain body structure, the word cranial means:**
A Toward the tail
***B Toward the head**
C Toward the nose
D Closest to the midline
187. **What is oogenesis?**
A Condition in which one or both testicles remain in the body cavity.
B Causes destruction of the cotyledons of the uterus.
***C Process by which ova are produced by the female.**
D Process by which sperm are produced by the male.
188. **A female that has produced a calf:**
***A Cow**
B Bull
C Heifer
D Steer
189. **The term that means of, or relating to sheep:**
***A Ovine**
B Equine
C Bovine
D Galline
190. **Sammy is trying to determine the specific gravity of urine. What tools can be used to accomplish this?**
***A All of these**
B Refractometer
C Reagent Strips
D Urinometer
191. **How long is a dog in estrus?**
A exactly 15 days
B between 7 – 28 days with a mean of 11 days.
***C between 4 – 21 days with a mean of 9 days**
D exactly 6 days.

192. **A compound fracture is one in which:**
A The break is on one side of the bone.
B The bone shatters in the many pieces.
C The break is along the axis of a bone.
***D The bone breaks through the skin.**
193. **When dealing with radioactive equipment, you should always wear:**
A a dosimeter
***B All of these**
C lead gloves
D lead apron
194. **A dog that licks his feet, rubs his face, or scratches behind his elbows may be showing signs of:**
A Fatigue
***B Allergy**
C Boredom
D Hunger
195. **Erythrocytes are microscopic cells also called:**
A Plasma
***B Red blood cells**
C Platelets
D White blood cells
196. **Indicate the tablets/capsules prescribed for the following order: Rx: Metronidazole tablets 250 mg ----
Sig: 1 tablet, P.O., BID x 10 days**
A 40 tablets
B 10 tablets
***C 20 tablets**
D 30 tablets
197. **The soft “v” shaped tissue in the center of the bottom of the horses hoof:**
A Sole
***B Frog**
C White line
D Wall
198. **Which of the following hormones is the most primary hormone produced by the testes?**
A Estrogen
***B Testosterone**
C Oxytocin
D Progesterone
199. **A zookeeper gives a pot-bellied pig 1200 milligrams (mg) of Streptomycin in a 24-hour period. How many mg does he give the pig per dose if he gives the medication every 6 hours (q6h)?**
***A 300 mg**
B 400 mg
C 200 mg
D 100 mg

200. A member of OSHA is doing a walkthrough of a veterinary clinic. The Occupational Safety and Health Administration is housed in
- A The Department of Security
 - B The Department of Finance
 - *C The Department of Labor**
 - D The Department of Health
201. A person who cares for equine feet including trimming and shoeing is called a/an:
- *A farrier**
 - B equestrian
 - C hobble
 - D quitor
202. A cat in end-stage renal disease is receiving Epoetin (2000 u/ml). The dose is 100 u/kg. Your patient weighs 5.5 lb. How many units will you deliver?
- A 750
 - B 500
 - *C 250**
 - D 1000
203. What is the common percentage of Brahman and British breeds in American cattle?
- A 3/5, 2/5 cross
 - *B 3/8, 5/8 cross**
 - C 1/3, 2/3 cross
 - D 3/7, 4/7 cross
204. One disease that is transmitted by the tick is:
- A Ringworm
 - *B Rocky Mountain Spotted Fever**
 - C Toxoplasmosis
 - D Salmonella
205. Kyra, a 7-year-old, F/S mixed breed dog (107 lb) is presented to the clinic with signs of increases vocalization and urine leaking. She does not appear to be PU/PD (increased urination/increased drinking) or having accidents due to lack of training. She usually leaks urine after she has lain down (her bed is damp). The U/A (urinalysis) is WNL as the PE. Scout radiographs of the urinary bladder are unremarkable. Based on her history and pattern of urine leaking, the vet determines that she might have estrogen responsiveness incontinence. She is prescribed DES (diethylstilbestrol) at a dosage of 1 mg P.O. SID for 3 days, followed by maintenance therapy of 1 mg po per week. DES comes in 1-mg and 5-mg tablets. How many mg does this dog receive for 3 weeks of treatment?
- *A 5**
 - B 7
 - C 3
 - D 9
206. Lyme disease is caused by a:
- A Fungus
 - *B Bacteria**
 - C Virus
 - D Parasite

207. Which of the following breeds of dairy cattle produces the most milk?
A Guernsey
B Brown Swiss
***C Holstein**
D Jersey
208. A veterinarian has diagnosed an animal with typhus, which is a zoonotic disease. Zoonotic means:
A A device that measures the amount of radiation someone is exposed to when performing radiology.
B Refers to the back.
C Precautions taken to prevent contamination of a surgical wound.
***D Disease that can be transmitted between animals and humans.**
209. Sheep have _____ chromosomes.
A 24
B 44
***C 54**
D 34
210. A veterinary technician is developing X-rays. He follows the time chart recommended for the film he is using. What is the total time required to complete the developing process? Developing Process Time Required: - Developer 2 1/4 minutes - Rinse 3/4 minute - Fix solution 3 1/2 minutes - Final wash 19 minutes
A 24 1/4 minutes
B 25 minutes
C 25 3/4 minutes
***D 25 1/2 minutes**
211. Which of the following parasites is considered an endoparasite?
A Ticks
***B Hookworms**
C Fleas
D Mites
212. Which of the following needles would most commonly be used for canine vaccinations?
A 25 gauge
B 16 gauge
***C 21 gauge**
D 20 gauge
213. Determine the number of pounds in 10.5 kilograms.
***A 23.1**
B 25.5
C 21.9
D 24.6

214. After autoclaving a surgical pack, you notice that the autoclave tape looks the same as it did when you placed it in the autoclave. What should you do now?
- A Just hide the pack so you do not get in trouble for it not being sterilized.
 - B Place the pack with the others – there is no reason to be concerned about the sterility of the instruments.
 - *C Place the pack to the side and do not allow it to be used because the sterility of the pack is questionable.**
 - D Open the pack to check the instruments for sterility. If they look clean, they can be used.
215. A sexually mature male of the ovine species:
- A Rooster
 - B Barrow
 - C Bull
 - *D Ram**
216. An example of a fungus is:
- A Tuberculosis
 - B Pink Eye
 - C Sarcoptes
 - *D Ringworm**
217. $\frac{1}{4}$ of a L is equivalent to:
- A 750 ml
 - B 500 ml
 - C 1000 ml
 - *D 250 ml**
218. What is a freemartin?
- *A Sterile female calf born twin to a male calf.**
 - B Process by which ova are produced by the female.
 - C Respiratory viral disease that causes infertility.
 - D Condition in which one or both testicles remain the body cavity.
219. The Snap Canine Heartworm Test tests the blood for:
- *A Antigen produced by female heartworms**
 - B Female heartworms only
 - C Microfilaria
 - D Adult heartworms
220. Anthrax is a _____ disease of livestock.
- A Zoonotic
 - B Fungal
 - *C Bacterial**
 - D Parasitic
221. Which organization governs the use, storage and disposal of controlled substances?
- A OSHA
 - *B DEA**
 - C EPA
 - D None of these

222. A technician is using a microscope to examine a specimen. If the eyepiece on the microscope has a power of 15x (x means times; a power of 15x magnifies an object 15 times) and the objective has a power of 100x, what is the total number of times she is magnifying the specimen? Hint: to find total magnification on a microscope, multiply the power of the eyepiece times the power of the objective.
- A 3000x
 - B 2000x
 - C 2500x
 - *D 1500x**
223. When evaluating the integumentary system of Rowdy, a Palomino, the CVA would evaluate all of the following areas EXCEPT:
- A Hooves
 - *B Mucous membranes**
 - C Hair
 - D Skin and hide
224. A set of signs that occur together is called a/an:
- A endemic
 - *B syndrome**
 - C symptom
 - D sign
225. Which type of mite can cause a zoonotic disease?
- A Otodectes
 - B All of these
 - C Demodectic
 - *D Sarcoptic**
226. The term that means of, or relating to poultry:
- A Equine
 - B Porcine
 - *C Galline**
 - D Feline
227. Whipworm eggs look like a/an _____ under a microscope.
- A Cone
 - B Rectangle
 - C Circle
 - *D Oval**
228. Which of the following is a zoonotic disease?
- A Ringworm
 - B Cat Scratch Fever
 - *C Both of these**
 - D None of these
229. What is spermatogenesis?
- *A Process by which sperm are produced by the male.**
 - B Condition in which one or both testicles remain in the body cavity.
 - C Process by which ova are produced by the female.
 - D Causes destruction of the cotyledons of the uterus.

230. Which of the following hormones are the primary hormones produced by the ovaries?
- A Testosterone and progesterone.
 - B Testosterone and oxytocin.
 - C Estrogen and testosterone.
 - *D Estrogen and progesterone.**
231. You are feeding your dog Woof-Woof Dog Food. It costs \$14.95 for a 35-pound bag, you are feeding your dog 3.5 cups of food per day, and each cup weighs 3.5 ounces. What is the cost per pound?
- *A \$0.43 per pound**
 - B \$2.34 per pound
 - C \$4.98 per pound
 - D \$0.23 per pound
232. What is the name of the set of guidelines to protect employees?
- A Employees Right to Know
 - B Employee Code of Ethics
 - C OSHA
 - *D Hazard Communication Standard**
233. If you are bitten, scratched or cut when working around animals, you should:
- A None of these.
 - *B Wash thoroughly with water and a disinfecting soap, then notify your supervisor.**
 - C Just wipe the blood off and bandage if needed.
 - D Quickly rinse out the area.
234. Which of the following are the “ABC’s” of cardiopulmonary resuscitation?
- *A Airway, Breathing, Compression**
 - B Always Breath Continuously
 - C Airway, Breathing, Circulation
 - D Airway, Bleeding, Compression
235. What does Brucellosis cause?
- A Respiratory viral disease that causes infertility.
 - B A sterile female calf born twin to a male calf.
 - C A decrease in the production of sperm in the male.
 - *D Abortions typically in the second half of pregnancy.**
236. What is a method of prevention for anal sac swelling?
- A use an enema on a weekly basis
 - *B have veterinarian check anal glands**
 - C let your dog lick their anal glands
 - D let your dog scoot
237. The _____ is white in color and has large, drooping ears that cover most of its face.
- A Yorkshire
 - B Hereford
 - C Chester White
 - *D American Landrace**

238. **Chipped bones, bowed tendons and other soft tissue injuries can cause what condition in horses?**
A broken bones
***B lameness**
C all these
D even gaits
239. **The amount of food provided to livestock in a 24-hour period is its:**
A graze
B silage
***C ration**
D roughage
240. **Aseptic technique is:**
***A Precautions taken to prevent contamination of a surgical wound.**
B Swabbing for a bacteria culture
C Cleaning surfaces with bleach
D A chemical agent that kills or prevents the growth of microorganisms
241. **When sanitizing, filtration is best described as:**
A Soaking items in a chemical disinfectant until they are used.
***B Removing particles from the air using a physical barrier.**
C Using a chemical with a mop or sponge.
D Incinerating an object or exposing them to a flame.
242. **Nebulized is defined as:**
A Turned into a liquid
B Turned into molecules
C Turned into oxygen
***D Turned into a fine mist**
243. **When treating or assisting a doctor with an animal's abscess wound, it is important to:**
***A All of these.**
B Wear disposable gloves.
C Disinfect the treatment counter thoroughly.
D Wash and disinfect all instruments used.
244. **A veterinarian is paid \$53,291 per year. After a raise, her yearly salary increases to \$56,509. What was the amount of her raise?**
A \$1450
***B \$3218**
C \$2192
D \$3901
245. **Immunity is defined as:**
A Slow and painful abscess
B Rhabdovirus
C Not being able to tolerate disease
***D Having resistance to a disease due to the formation of antibodies.**

246. The abomasum is:
- A The first compartment of the ruminant stomach.
 - *B The fourth compartment of the ruminant stomach.**
 - C The second compartment of the ruminant stomach.
 - D The third compartment of the ruminant stomach.
247. Which of the following is NOT one of the nutrients that should be included in pet food?
- A Fats
 - B Proteins
 - C Water
 - *D Oils**
248. The average pulse (beats/min) and respiration (breaths/min) for a horse is
- A 60-70, 10-30
 - *B 30-60, 8-16**
 - C 40-60, 12-20
 - D 60-90, 12-20
249. The function of the cecum is to:
- A Produce insulin.
 - B Produce bile.
 - C None of these.
 - *D Aide in the digestion of fibrous materials.**
250. A sheep has a temperature of 102.5°F. This is:
- A Too high
 - *B Normal**
 - C Too low
251. The order is 0.5 mg of Centrine, and 0.2 mg tablets are on hand. How many tablets will be administered?
- A 1.5 tablets
 - B 1.0 tablets
 - C 2.0 tablets
 - *D 2.5 tablets**
252. Cole has been asked to clean the front waiting area of the clinic. With regard to the types of sanitation, which of these best describes “cleaning”?
- A Solutions that destroy microorganisms or inhibit their growth on living tissue.
 - B Destroying most microorganisms on nonliving things by physical or chemical means.
 - C Destroying all microorganisms and viruses on an object using chemicals and/or heat.
 - *D Physically removing all visible signs of dirt and organic matter such as feces, hair, etc.**
253. A microbiologist notes that the average length of a bacterium is 1/1000 micrometer (mcm). Viruses range in size from 1/2500 to 1500 mcm. How much longer is a bacterium than the smallest virus in mcm?
- A 7/5000 mcm
 - *B 3/5000 mcm**
 - C 3/500 mcm
 - D 4/5000 mcm

254. Proper protective equipment (PPE) sometimes includes a dosimeter. This is:
- A A device that keeps animals from biting you.
 - B Something that covers your face while working with animals.
 - *C A device that measures the amount of radiation someone is exposed to when performing radiology.**
 - D Lead gloves
255. Annie is helping to examine a patient. She is instructed to take the temperature, pulse, and respiration, which is a crucial part of a physical exam. Which of the following factors does not affect TPR?
- *A breed**
 - B size
 - C environmental temperature
 - D age
256. Kyra, a 7-year-old, F/S mixed breed dog (107 lb) is presented to the clinic with signs of increases vocalization and urine leaking. She does not appear to be PU/PD (increased urination/increased drinking) or having accidents due to lack of training. She usually leaks urine after she has lain down (her bed is damp). The U/A (urinalysis) is WNL as the PE. Scout radiographs of the urinary bladder are unremarkable. Based on her history and pattern of urine leaking, the vet determines that she might have estrogen responsiveness incontinence. She is prescribed DES (diethylstilbestrol) at a dosage of 1 mg po sid for 3 days, followed by maintenance therapy of 1 mg po per week. DES comes in 1-mg and 5-mg tablets. How many tablets does this dog receive for the first three days?
- *A 3**
 - B 5
 - C 4
 - D 2
257. The feline's first line of defense is:
- A Its tail
 - B Its hind legs
 - C Its teeth
 - *D Its claws**
258. The term that means of, or relating to dogs:
- A Galline
 - B Bovine
 - *C Canine**
 - D Feline
259. An orchiectomy:
- *A Removal of the testes.**
 - B An incision into the thorax.
 - C Removal of a tumor.
 - D Removal of the ovaries and uterus.
260. Fran is doing research on pathogens. A pathogen is:
- A Precautions taken to prevent contamination of a surgical wound.
 - B Refers to the back.
 - C Disease that can be transmitted between animals and humans.
 - *D A microorganism that produces disease.**

261. Lauren is bandaging Bruce, a four year old horse. Leg bandages on horses are started on the _____ part of the leg and wrapped toward the back.
- A Vertical
 - *B Proximal**
 - C Lateral
 - D Horizontal
262. Carbohydrates contain or include:
- A Amino Acids
 - B Lipids
 - *C Simple Sugars**
 - D None of these
263. Fenbendazole (10% suspension) is an antiparasitic drug used in the treatment of whipworms, roundworms, hookworms, and some species of tapeworms. For dogs the dosage is 50 mg/kg P.O. for 3 days. How many mls would you give a dog that weighs 50 lbs?
- A 9.5 mls
 - B 14.3 mls
 - *C 11.4 mls**
 - D 12.1 mls
264. All of the following are examples of safety equipment, except _____.
- A Back brace
 - B Lead apron
 - C Lead gloves
 - *D Lead shoes**
265. Identification tags are usually placed in the _____ of cattle.
- A hooves
 - B nostrils
 - *C ears**
 - D teeth
266. The veterinarian is explaining to Sally's owner how she will be spayed. Spay is defined as:
- A Swelling and inflammation
 - B Substance that induces an immune response
 - C Allergic response
 - *D The common term for removal of female reproductive organs**
267. What are the two factors that determine or influence an animal's disposition?
- A housing and genetic make-up
 - *B genetic make-up and environmental situation**
 - C nutrition and housing
 - D environmental situation and nutrition
268. Goats have _____ chromosomes.
- A 70
 - B 64
 - C 50
 - *D 60**

269. "Max" needs 30 mg. of Gentocin IV. Gentocin comes in two different concentrations; 50 mg/ml or 100 mg/ml. Using 50 mg/ml, how many ml would you draw up? AND Using 100 mg/ml, how many ml would you draw up?
- A 3 ml and 6 ml
 - B 6 ml and 3 ml
 - *C 0.6 ml and 0.3 ml**
 - D 0.3 ml and 0.6 ml
270. Both sheep and goats have _____ hooves.
- *A cloven**
 - B two toe-nails
 - C All of these
 - D split
271. A newborn chicken:
- A Broiler
 - *B Chick**
 - C Cockerel
 - D Pullet
272. A veterinary technician inventories the number of medication containers. She finds there are 1,137 safety-lock containers, 963 easy-open containers, 413 15mL bottles, 1,265 30mL bottles, and 258 ointment containers. What is the total number of medication containers?
- A 4000 containers
 - B 1457 containers
 - C 3000 containers
 - *D 4036 containers**
273. What is the vector for heartworms?
- A Flea
 - B Tick
 - C Lice
 - *D Mosquito**
274. An animal shelter worker is preparing formula for orphaned puppies. There are 9 puppies and each needs 2 ounces of formula. How many ounces of formula must be prepared?
- A 20 oz
 - B 22 oz
 - C 16 oz
 - *D 18 oz**
275. A vet tech is in charge of the construction of a new X-ray development unit. She knows that to prevent radiation the walls must be at least $2 \frac{5}{8}$ inches (") thick if gypsum sheet rock is used or $\frac{1}{16}$ " thick if sheets of lead are embedded in the wall to prevent the passage of radiation. What is the difference of thickness in the two walls?
- A $2 \frac{3}{4}$ inches
 - *B $2 \frac{9}{16}$ inches**
 - C 3 inches
 - D $2 \frac{1}{2}$ inches

276. A mature female of the porcine species that has produced young:
A Gilt
B Hen
***C Sow**
D Ewe
277. A veterinary technician gives a dog $\frac{1}{2}$ ounces (oz) of cough medicine at 6 PM and $\frac{1}{4}$ oz of cough medicine at 10 PM. What is the total amount of cough medicine received?
***A $\frac{3}{4}$ oz**
B $\frac{1}{4}$ oz
C 1 oz
D $\frac{1}{2}$ oz
278. Sue is taking the temperature and pulse of Max, a medium sized dog. What should she expect the temperature and pulse rate to be?
A 100°F and 70-120 beats/min.
B 100°F and 100-145 beats/min.
C 101°F and 60-90 beats/min.
***D 102°F and 70-120 beats/min.**
279. What are the anatomical differences between the oviducts of most mammals and the oviducts of poultry?
A Mammals have one oviduct.
B Mammals do not have oviducts.
***C Poultry have one oviduct.**
D Poultry do not have oviducts.
280. The veterinarian is describing to Spike's owner how he will be neutered. Neuter is defined as:
A Swelling and inflammation
B Proteins produced by lymph system
C Having resistance to a disease
***D The common term for removal of male reproductive organs**
281. Most surgical instruments are manufactured from _____.
***A Stainless steel**
B Copper
C Lead
D Aluminum
282. The veterinarian requests 600 cc of a solution. The instrument used to measure only has marks for mls. You know the correct equivalent of 600 cc in mls because:
A A cc is twice the amount of a ml
B A ml is twice the amount of a cc
C A ml is half the amount of a cc
***D cc and mls are equivalent.**
283. Feline viral Rhinotracheitis symptoms include:
***A Sneezing, discharge from nose and eyes**
B Aggression
C Anorexia
D Licking of wound
-

284. An animal health technician is stocking a cabinet with flea control products. He stocks three cases of spray containing 24 cans per case, 13 cases of shampoo with 12 bottles per case, 5 boxes of foam with 10 cans per case, and 6 cases of powder with 8 boxes per case. Three days later he calculates that 35 cans of spray, 18 bottles of shampoo, 5 cans of foam and 21 bottles of powder have been sold. How many total items of flea killing preparations are left in the cabinet?
- A 251 preparations
 - B 249 preparations
 - *C 247 preparations**
 - D 245 preparations
285. An animal has a superficial wound. Superficial means:
- A a wound that is on the extremities of an animal
 - *B Near the surface, also called external.**
 - C on an organ.
 - D deep laceration