

2015 Iowa State FFA Veterinary Science CDE Exam

1. Copper toxicity is typically an issue associated with which species?
 - a. Dogs
 - b. Cats
 - c. Cattle
 - d. Sheep
2. Iron deficiency in offspring is typically associated with which species?
 - a. Dogs
 - b. Pigs
 - c. Cats
 - d. Cattle
3. Horses sometimes display a behavior called wood chewing (lignophagia). What is the definitive cause of this abnormal behavior?
 - a. Lack of roughage in their diet
 - b. Too much roughage in their diet
 - c. Low concentrate diet
 - d. Too much sunlight
4. What is it called when an animal ingests sand, dirt, or rocks? This behavior may lead to serious complications such as intestinal obstructions.
 - a. Polydipsia
 - b. Coprophagia
 - c. Pica
 - d. Aerophagia
5. At what stage is ketosis a common disorder in dairy cows?
 - a. Early gestation
 - b. Early lactation
 - c. Late gestation
 - d. Late lactation
6. Equine infectious anemia (EIA) is caused by a Lentivirus. How is this disease typically transmitted among horses?
 - a. Infected horses coughing
 - b. Through contact with infected urine
 - c. Sharing the same water trough
 - d. Transfer of infected blood
7. Which animals have anal glands?
 - a. Dogs
 - b. Cats
 - c. Horses
 - d. A and B
8. Lyme's disease caused by the bacteria *Borrelia burgdorferi* and is pathogenic to many species including dogs, cats, and humans. What is the insect vector that can carry the bacteria and cause infection?
 - a. Dog ticks
 - b. Deer ticks
 - c. Fleas
 - d. Mosquitos

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9. Heartworm infection is caused by the parasite *Dirofilaria immitis* and is pathogenic to dogs. What is the insect vector that can carry the parasite and cause infection?
- a. Fleas
 - b. Dog ticks
 - c. Mosquitos
 - d. Mites
10. Which breed of dog is classified as a “Working Group” breed?
- a. Bernese Mountain Dog
 - b. Pomeranian
 - c. Beagle
 - d. Scottish Terrier
11. Which breed of cat typically has a stub tail or no tail?
- a. Abyssinian
 - b. Maine Coon
 - c. Sphynx
 - d. Manx
12. Identify this piece of equipment:



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- a. Mayo dissecting scissors
- b. Bandage scissors
- c. Suture wire cutting scissors
- d. Nail clippers

13. Identify this piece of equipment:



- a. Staple removers
- b. Tourniquets
- c. Rumen magnets
- d. Silver nitrate sticks

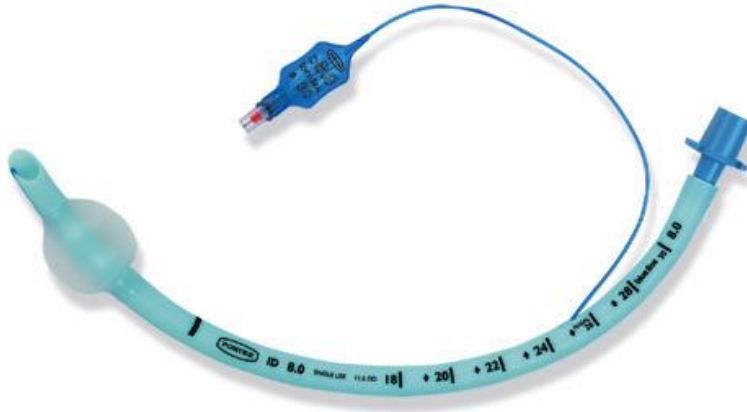
14. Identify this piece of equipment:



www.broschdirect.com 2015

- a. Stethoscope
- b. Ophthalmoscope
- c. Otoscope
- d. Laryngoscope

15. Identify this piece of equipment:



<http://www.ivermedi.com> 2015

- a. Endotracheal tube
 - b. Blub syringe
 - c. Laryngoscope
 - d. Cannula
16. You are administering an oral drug to a dog and want to deliver 20 mg of drug per kg of body weight. Each pill contains 100 mg of the drug. How many pills would you give a dog that weighs 45 lb? [2.2 lb = 1 kg]
- a. 1
 - b. 2
 - c. 3
 - d. 4
17. Rabbits are unique compared to many domestic pets species. One of their unique traits is that they are coprophagic animals, what does that mean?
- a. They do not require copper in their diets
 - b. They eat their own feces
 - c. They jump when startled
 - d. Copper is extremely toxic to them
18. Dental malocclusion can be a serious condition in rabbits compared to cats and dogs, why?
- a. Because rabbits do not have deciduous teeth
 - b. Because rabbits swallow their food whole
 - c. Because rabbits teeth continually grow throughout their life
 - d. Because rabbits are obligate herbivores
19. Medical records are one of the most important tools for helping diagnose medical conditions. When gathering a patient's history, what information should be recorded?
- a. Breed and species
 - b. Gender
 - c. Age
 - d. All of the above
20. Cattle are ruminant animals. Which anatomical feature is **NOT** a compartment of their stomach?

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- a. Ventriculus
 - b. Abomasum
 - c. Omasum
 - d. Reticulum
21. Cats have an upper and lower portion of their skull that makes up their jaw and mouth. What is name of the bone that makes up the upper portion of their mouth?
- a. Mandible
 - b. Maxilla
 - c. Temporal
 - d. Occipital
22. A toy breed dog comes to your clinic with a chronic condition of mucus buildup in her left eye that constantly weeps and it is not infected or ulcerated. What is the most likely cause of this condition?
- a. Hyperactive salivary glands
 - b. Entropion
 - c. Obstructed nasolacrimal duct
 - d. Glaucoma
23. In the state of Iowa, the law requires that rabies suspect dogs, cats, and ferrets that have bitten or exposed a human to their saliva be:
- a. Euthanized immediately
 - b. Quarantined for 10 days unless previously vaccinated
 - c. Quarantined for 10 days regardless of their vaccination status
 - d. Returned to their owners because there is no danger
24. Name this breed of horse:



- a. Percheron
- b. Clydesdale
- c. Arabian
- d. Morgan

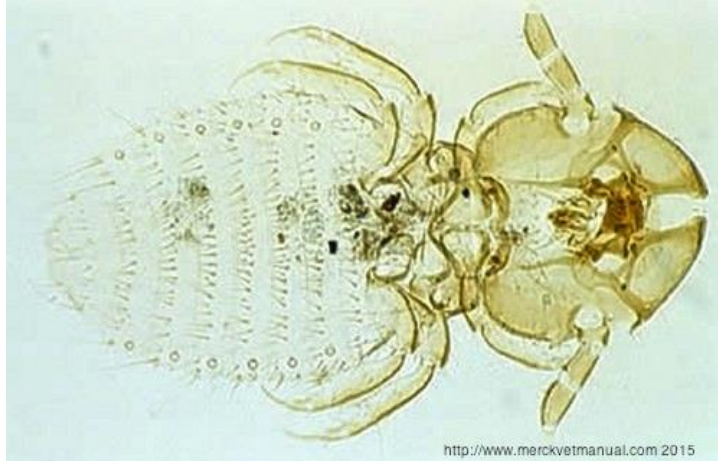
25. Name this breed of cattle:



- a. Jersey
 - b. Guernsey
 - c. Holstein
 - d. Brown Swiss
26. You have a sick dog in your clinic that is severely dehydrated. You want to deliver 100 ml of fluid to the dog using an intravenous catheter drip. The drop factor of the drip is 10 drops per ml. What is the drip rate needed (drops per minute) to deliver the fluid over the course of 30 minutes?
- a. 3 drops per minute
 - b. 17 drops per minute
 - c. 25 drops per minute
 - d. 33 drops per minute
27. You are injecting a solution into a cat and want to deliver 5 mg of drug per kg of body weight. Each ml of injectable solution contains 10 mg of the drug. How many ml of injectable solution would you give a cat that weighs 9 lb? [2.2 lb = 1 kg]
- a. 1 ml
 - b. 2 ml
 - c. 3 ml
 - d. 4 ml
28. Colic is a serious condition in horses that may result in death. Why is it such a serious problem for horses compared to cattle?
- a. Cattle have multi-chambered stomachs
 - b. Horses are obligate herbivores
 - c. The distal esophagus of horses are functional one-way valves
 - d. The proximal esophagus of horses are structurally narrow

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29. A dog comes into your clinic with matted fur and has been scratching and rubbing his head, neck, and tail. The owner has **NOT** complained about being bitten or feeling itchy. You suspect a species-specific infestation and when looking under the microscope you see this. What is causing the infestation?



- a. Lice
 - b. Mites
 - c. Fleas
 - d. Ticks
30. A solution is being injected under the skin of a cat. What is this route of delivery called?
- a. Subcutaneous
 - b. Intramuscular
 - c. Intravenous
 - d. Enteral
31. How many permanent teeth do cat have?
- a. 26
 - b. 28
 - c. 30
 - d. 42
32. What pathologic condition increases the metabolic rate of cats (most commonly in middle-aged to old cats) presenting with weight loss, increased appetite, hyperexcitability, polydipsia, polyuria, tachycardia, and heart murmurs.
- a. Hypoadrenocorticism
 - b. Hyperadrenocorticism
 - c. Hypothyroidism
 - d. Hyperthyroidism
33. What is used to generate images of the internal structure of animals (most commonly bone) using electromagnetic radiation that produces black and white pictures?
- a. Magnetic resonance imaging (MRI) machine
 - b. Radiographic (x-ray) machine
 - c. Ultrasound machine
 - d. Electron microscope

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34. What is a common condition in older dogs that increases the opacity of the lens in the eye causing impaired vision or blindness?
 - a. Glaucoma
 - b. Superficial keratitis
 - c. Iridic cysts
 - d. Cataracts
35. Feline leukemia virus (FeLV) in cats may cause anemia, malignancies, and immunosuppression, which is why FeLV vaccination is an important part of managing this disease. What is the most common route of FeLV infection among adult cats?
 - a. Intraocular
 - b. Oronasal
 - c. Cutaneous
 - d. Intravenous
36. What is it called when a disease is transmitted from an infected pregnant animal to their unborn offspring in utero?
 - a. Syncopated transmission
 - b. Horizontal transmission
 - c. Vertical transmission
 - d. Diagonal transmission
37. Which of these is part of the circulatory system?
 - a. Jejunum
 - b. Pancreas
 - c. Ovary
 - d. Aorta
38. Which of these is part of the digestive tract?
 - a. Ileum
 - b. Medulla
 - c. Vena cava
 - d. Retina
39. Which of these is part of the respiratory system?
 - a. Abdomen
 - b. Trachea
 - c. Esophagus
 - d. Thoracic duct
40. What can cause toxicity in dogs that presents as anuric renal failure within 72 hours after ingestion? Additional clinical signs may include vomiting, diarrhea, lethargy, anorexia, and abdominal pain.
 - a. Grapes or raisins
 - b. Bread dough
 - c. Chocolate
 - d. Xylitol sweetener
41. What contains thiosulfate that causes oxidative damage to red blood cells and results in anemia in dogs and cats?
 - a. Chocolate
 - b. Grapes or raisins

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- c. Onions or garlic
 - d. Macadamia nuts
42. What contains theobromine that causes life-threatening cardiac arrhythmias and central nervous system dysfunction in dogs?
- a. Onions or garlic
 - b. Grapes or raisins
 - c. Xylitol sweetener
 - d. Chocolate
43. What is it called when a cow is having complications giving birth?
- a. Dystocia
 - b. Mastitis
 - c. Abortion
 - d. Pyometra
44. A sick steer is given an antibiotic with a withdrawal time of 7 days. If the antibiotic is administered on April 10th, when is the first day you can safely harvest the animal?
- a. April 16th
 - b. April 17th
 - c. April 18th
 - d. April 19th
45. Brucellosis in cattle is a serious disease that causes what clinical manifestation?
- a. Hemolytic anemia
 - b. Diarrhea
 - c. Abortion
 - d. Vomiting
46. What is the name of the crippling disease in horses that results in the failure of attachment between the hoof wall and distal phalanx?
- a. Rickets
 - b. Osteochondrosis
 - c. Degenerative arthritis
 - d. Laminitis
47. Lungworm infection of the lower respiratory tract in cattle may cause bronchitis or pneumonia. What is the species name of this of parasitic nematode?
- a. *Dirofilaria immitis*
 - b. *Ixodes scapularis*
 - c. *Dictyocaulus viviparus*
 - d. *Taenia saginata*
48. Rocky Mountain spotted fever can cause a variety of clinical signs including fever, lymphadenopathy, and edema of the face or extremities in both dogs and humans. The disease is caused by the microorganism *Rickettsia rickettsii* and is typically carried by what insect vector?
- a. Lone star ticks
 - b. Deer ticks
 - c. Fleas
 - d. Lice

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49. A benign, smooth, pink, fleshy, inflammatory growth of connective tissue is found in the external ear canal of a young cat in your clinic. What is the most likely diagnosis?
- a. Nasopharyngeal polyp
 - b. Nasolacrimal duct obstruction
 - c. Conjunctival edema
 - d. Laryngeal paralysis
50. What is it called when a cow has an infected utter?
- a. Abortion
 - b. Pyometra
 - c. Dystocia
 - d. Mastitis

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Key

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

45. C
46. D
47. C
48. A
49. A
50. D

C. Written Scenario – Pilot Activity for 2015 (Will not count toward team score)

1. The questions associated with the scenarios will allow the students to utilize critical thinking and problem solving skills. Participants will be given a scenario to respond to and submit the response on-line.
2. Sample scenario question: Write a persuasive letter on the issue below and portray your point of view using the provided resource:

“Biosecurity is of great importance for preventing entry of infectious diseases into animal populations, which could lead to disease outbreaks with devastating economic losses to the animal industries. In addition to biosecurity, bio-containment measures must also be practiced to control diseases that have entered animal premises. Veterinarians have a major responsibility in educating clients on routine practice of biosecurity and bio-containment measures for animal operations. Veterinarians must be on guard in their practice of veterinary medicine to personally prevent introducing and spreading diseases while working on animal premises.

Discuss the key points of client education for a cow-calf herd and give examples of cattle diseases that have high risk of entering and spreading in the herd.

Discuss the precautions for veterinarians to exercise and give examples of contagious cattle diseases that veterinarians could introduce or spread while providing veterinary services on a cow-calf farm or ranch.”

Resources: [General Biosecurity](#) and [Prevention Practices for Beef and Dairy Producers](#)