

Ag Bowl 2026 Veterinary Science Exam

Section 1: Anatomy, Physiology & Terminology

1. Which anatomical term refers to a structure toward the animal's back?
 - a. Ventral
 - b. Dorsal**
 - c. Caudal
 - d. Medial
2. The "True Stomach" of a ruminant, where chemical digestion occurs, is the:
 - a. Rumen
 - b. Reticulum
 - c. Omasum
 - d. Abomasum**
3. In the skeletal system, which joints are held together by a fluid-filled capsule?
 - a. Fibrous joints
 - b. Cartilaginous joints
 - c. Synovial joints**
 - d. Fixed joints
4. What is the medical term for "difficulty breathing"?
 - a. Dyspnea**
 - b. Apnea
 - c. Tachypnea
 - d. Bradypnea
5. The microscopic functional unit of the kidney is the:
 - a. Alveoli
 - b. Neuron
 - c. Nephron**
 - d. Myofibril
6. Which heart chamber pumps oxygenated blood out to the rest of the body?
 - a. Right Atrium
 - b. Right Ventricle
 - c. Left Atrium
 - d. Left Ventricle**
7. The prefix "Hypo-" in veterinary terminology means:
 - a. Above or excessive
 - b. Below or deficient**
 - c. Inside or within
 - d. Around or surrounding
8. Which plane divides the animal into equal left and right halves?
 - a. Transverse plane
 - b. Frontal plane
 - c. Midsagittal (Median) plane**
 - d. Horizontal plane

Section 2: Nutrition and Feeding

9. Which nutrient is the primary builder of muscle, skin, and hair?

- Carbohydrates
- Lipids
- Proteins
- Minerals

10. A deficiency in which vitamin is known to cause "White Muscle Disease" in calves and lambs?

- Vitamin A
- Vitamin C
- Vitamin E
- Vitamin K

11. Which species is an "hindgut fermenter," allowing them to digest large amounts of forage?

- Dog
- Pig
- Horse
- Cat

12. Which of the following is considered a "Concentrate" in a livestock ration?

- Alfalfa hay
- Corn grain
- Corn silage
- Wheat straw

13. Water-soluble vitamins include:

- Vitamins A and D
- Vitamins E and K
- Vitamin B complex and C
- Vitamins A and E

14. The process of "rumination" involves:

- Rapidly swallowing food without chewing
- Regurgitating, re-chewing, and re-swallowing boluses of feed
- Digestion primarily in the small intestine
- The absorption of water in the omasum

15. Which mineral is required in the highest amount for eggshell production in poultry?

- Iron
- Calcium
- Copper
- Zinc

16. Toxicity from which element is particularly common in sheep?

- Copper
- Magnesium
- Sodium
- Manganese

Section 3: Health Care (Prevention, Causes, Symptoms, Treatment)

17. Which of the following is a zoonotic disease?

- a. Parvovirus
- b. Rabies**
- c. Feline Immunodeficiency Virus (FIV)
- d. Bovine Spongiform Encephalopathy (BSE)

18. A "Modified Live" vaccine contains:

- a. A dead version of the pathogen
- b. Only the DNA of the pathogen
- c. A weakened version of the pathogen that can still replicate**
- d. A toxin produced by the bacteria

19. What is the common vector for Heartworm disease?

- a. Ticks
- b. Fleas
- c. Mosquitoes**
- d. Biting flies

20. "Founder" is a common name for which painful condition in horses?

- a. Colic
- b. Laminitis**
- c. Thrush
- d. Strangles

21. Which of the following is a symptom of "Bloat" in cattle?

- a. Coughing and nasal discharge
- b. Distension of the left paralumbar fossa**
- c. Lameness in the hind legs
- d. Excessive urination

22. The incubation period for a disease refers to:

- a. The time it takes for an animal to die
- b. The time from infection to the appearance of clinical signs**
- c. The amount of time a vaccine provides immunity
- d. The time it takes to sterilize equipment

23. Which diagnostic test is used to identify internal parasite eggs in feces?

- a. Fecal Flotation**
- b. Skin Scraping**
- c. Blood Smear
- d. Urinalysis

24. A "Subcutaneous" injection is given:

- a. Directly into the vein
- b. Into the muscle belly
- c. Under the skin**
- d. Directly into the abdominal cavity

Section 4: Reproduction, Breeding, and Genetics

25. The standard gestation period for a sow (pig) is:

- a. 63 days
- b. 114 days**
- c. 150 days
- d. 283 days

26. "Dystocia" is the medical term for:

- Early onset of puberty
- Difficult birth
- False pregnancy
- Inflammation of the mammary glands

27. The physical appearance of an animal, resulting from its genetics and environment, is the:

- Genotype
- Phenotype
- Allele
- Pedigree

28. Which hormone is primarily responsible for maintaining pregnancy?

- Estrogen
- Testosterone
- Progesterone
- Oxytocin

29. Mating two animals of different breeds to achieve "hybrid vigor" is called:

- Inbreeding
- Linebreeding
- Crossbreeding
- Outcrossing

30. In cattle, which breed is world-renowned for its high volume of milk production?

- Angus
- Hereford
- Holstein
- Brahman

31. What is the term for a castrated male sheep or goat?

- Steer
- Wether
- Barrow
- Gelding

32. Cryptorchidism is a condition where:

- One or both testicles fail to descend into the scrotum
- The female cannot produce milk
- The sperm count is low
- The animal is born with both male and female organs

Section 5: Breeds and Selection

33. Which dog breed belongs to the "Herding Group"?

- Beagle
- Border Collie
- Great Pyrenees
- Chihuahua

34. The "Quarter Horse" is primarily known for:

- Its endurance over 50 miles

- b. Its ability to sprint short distances (a quarter mile)
- c. Being a heavy draft horse
- d. Its unique "gait" called the running walk

35. Which breed of swine is white with erect ears?

- a. Hampshire
- b. Duroc
- c. Yorkshire
- d. Berkshire

36. When selecting beef cattle, "EPD" stands for:

- a. Every Pig Deserves
- b. Expected Progeny Difference
- c. Estimated Protein Digestibility
- d. External Parasite Detection

37. A "Polled" animal is one that:

- a. Has had its tail docked
- b. Is naturally born without horns
- c. Has been vaccinated for Polio
- d. Is used for pulling heavy loads

38. Which cat breed is known for its distinctive "ticked" coat and wild appearance?

- a. Persian
- b. Siamese
- c. Abyssinian
- d. Maine Coon

39. The "Fine Wool" breed of sheep that is the standard for wool quality is the:

- a. Suffolk
- b. Merino
- c. Dorset
- d. Hampshire

40. Which bird is most commonly used in the commercial broiler (meat) industry?

- a. Leghorn
- b. Rhode Island Red
- c. Cornish Cross
- d. Silkie

Section 6: Practice Management, Safety, & Biosecurity

41. An autoclave uses which two factors to sterilize equipment?

- a. Cold and Chemicals
- b. Heat and Pressure
- c. Radiation and Light
- d. Soap and Water

42. What does "OSHA" stand for in the context of workplace safety?

- a. Occupational Safety and Health Administration
- b. Office of Surgical and Health Assistance
- c. Organization of Shared Health Authorities
- d. Official Safety and Hygiene Act

43. A "Sharps" container is used to dispose of:

- a. Bloody gauze
- b. Leftover medication
- c. Used needles and scalpel blades**
- d. Paper waste from the exam room

44. Which biosecurity measure is most effective at preventing the entry of disease into a farm?

- a. Increasing the number of visitors
- b. Quarantining new animals for 2–4 weeks**
- c. Feeding animals more often
- d. Using the same boots in every barn

45. The primary purpose of a "Dosimeter badge" in a vet clinic is to:

- a. Measure heart rate
- b. Monitor exposure to radiation**
- c. Detect leaks in anesthetic gas
- d. Identify staff members

46. What is the first step in cleaning surgical instruments?

- a. Autoclaving
- b. Lubricating (milking)
- c. Sanitizing with bleach
- d. Manual scrubbing to remove gross debris**

47. "Zoonosis" refers to:

- a. A disease that only affects zoo animals
- b. A disease that cannot be cured
- c. A disease that can be cured
- d. A disease that can be transmitted from animals to humans**

48. In an isolation ward, which of the following is true?

- a. It should be the first place a technician visits in the morning
- b. It should have its own dedicated cleaning supplies and PPE**
- c. Air should circulate from the isolation room to the main clinic
- d. It is used for healthy animals awaiting surgery

49. What is the "Right to Know" law?

- a. The client's right to know the cost of surgery
- b. The employee's right to know about hazardous chemicals in the workplace**
- c. The veterinarian's right to know the animal's history
- d. The public's right to know about clinic profits

50. Which of the following is a "Cold Sterilant"?

- a. Distilled water
- b. Glutaraldehyde**
- c. Isopropyl alcohol
- d. Saline solution

Vet Science ID Answer Key

Dogs

1. Cairn Terrier
2. Great Pyrenees
3. English Setter
4. Greyhound
5. Irish Setter
6. Pekingese

Cats

7. Sphynx
8. American Shorthair

Birds

9. Parakeet
10. Cockatiel

Reptiles

11. Iguana
12. Ball Python

Small Mammals

13. Hamster
14. Gerbil
15. Chinchilla

Rabbits

16. English Spot
17. Holland Lop
18. Angora

Poultry

19. Broad Breasted White Turkey
20. Plymouth Rock
21. Cornish
22. Rhode Island Red

Cattle

23. Guernsey
24. Holstein
25. Brahman
26. Shorthorn
27. Ayrshire
28. Angus
29. Charolais
30. Jersey

Horses

31. Morgan
32. Appaloosa
33. Paint
34. Arabian
35. Quarter Horse
36. Clydesdale

- 37. Percheron
- 38. Belgian
- Goats
 - 39. Saanen
 - 40. LaMancha
 - 41. Boer
 - 42. Angora
- Sheep
 - 43. Dorset
 - 44. Southdown
 - 45. Dorper
 - 46. Columbia
- Pigs
 - 47. American Landrace
 - 48. Yorkshire
 - 49. Berkshire
 - 50. Hampshire

2026 Ag Bowl Veterinary Science Practicum 1 Answer Key

- 1. Large Intestine
- 2. Cecum
- 3. Reticulum
- 4. Esophagus
- 5. Omasum
- 6. Crop
- 7. Liver
- 8. Ceca
- 9. Cloaca
- 10. Gizzard
- 11. Prostate
- 12. Testicle
- 13. Scrotum
- 14. Vas deferens
- 15. Infundibulum
- 16. Magnum
- 17. Uterus
- 18. Shoulder
- 19. Hock
- 20. Loin

Veterinary Science CDE Practicum 2 (Parasite ID) Key

1. Roundworm Adult
2. Giardia
3. Demodectic Mite
4. Ear Mite
5. American Dog Tick
6. Flea Tapeworm Egg
7. Mosquito Larva
8. Hookworm Adult
9. Avian Red Blood Cell
10. Lone Star Tick
11. Roundworm Egg
12. Struvite Crystals
13. Coccidia
14. Flea Tapeworm Segment
15. Liver Fluke
16. Cat Warble
17. Sarcoptic Mite
18. Brown Dog Tick
19. Whipworm Egg
20. Eosinophils