

Advanced Veterinary Science Principles

Veterinary Science · Practice Test · 25 Questions

1. Which cranial nerve is primarily responsible for the motor innervation of the muscles of mastication in mammals?

- A) Trigeminal nerve (CN V)
- B) Facial nerve (CN VII)
- C) Glossopharyngeal nerve (CN IX)
- D) Hypoglossal nerve (CN XII)

2. In bovine anatomy, which of the four stomach compartments is considered the true glandular stomach equivalent to the simple stomach of monogastrics?

- A) Rumen
- B) Reticulum
- C) Omasum
- D) Abomasum

3. What is the primary mechanism of action for ivermectin, a common anthelmintic used in veterinary medicine?

- A) Inhibition of bacterial cell wall synthesis
- B) Binding to glutamate-gated chloride channels
- C) Disruption of microtubule polymerization
- D) Inhibition of acetylcholinesterase

4. Which heart valve is located between the right atrium and the right ventricle in a canine heart?

- A) Aortic valve
- B) Mitral valve
- C) Tricuspid valve
- D) Pulmonary valve

5. During a urinalysis, which finding is most indicative of pre-renal azotemia in a dehydrated patient?

- A) High urine specific gravity
- B) Low urine specific gravity
- C) Presence of glucose
- D) Presence of calcium oxalate crystals

6. Which phase of the estrous cycle in a bitch is characterized by a drop in progesterone and an increase in estrogen levels?

- A) Proestrus
- B) Estrus
- C) Diestrus
- D) Anestrus

7. In feline medicine, which virus is the causative agent of Feline Infectious Peritonitis (FIP)?

- A) Feline Leukemia Virus
- B) Feline Immunodeficiency Virus
- C) Feline Coronavirus
- D) Feline Calicivirus

8. What is the normal vertebral formula for the cervical region of the spinal column in most domestic mammals?

- A) C5
- B) C6
- C) C7
- D) C8

9. Which blood cell type is primarily responsible for the production of antibodies in the adaptive immune response?

- A) Neutrophils
- B) Basophils
- C) B-lymphocytes
- D) Monocytes

10. Which organ is responsible for the detoxification of ammonia into urea in mammals?

- A) Kidneys
- B) Liver
- C) Spleen
- D) Pancreas

11. The term 'tachycardia' refers specifically to which physiological state?

- A) Abnormally slow heart rate
- B) Abnormally fast heart rate
- C) Labored breathing
- D) Elevated body temperature

12. Which parasitic organism is the intermediate host for Dipylidium caninum?

- A) Mosquito
- B) Tick
- C) Flea
- D) Snail

13. What is the primary function of the surfactant produced by Type II pneumocytes in the alveoli?

- A) Enhance gas exchange
- B) Prevent alveolar collapse
- C) Filter airborne pathogens
- D) Regulate blood pH

14. In pharmacology, the 'therapeutic index' is calculated as the ratio between:

- A) LD50 and ED50
- B) ED50 and LD50
- C) Absorption rate and Excretion rate
- D) Half-life and Bioavailability

15. Which nutrient is classified as a macromineral essential for bone structure and blood clotting in animals?

- A) Iron
- B) Calcium
- C) Zinc
- D) Copper

16. Which part of the nephron is the primary site for the reabsorption of glucose in a healthy animal?

- A) Glomerulus
- B) Loop of Henle
- C) Proximal convoluted tubule
- D) Distal convoluted tubule

17. What is the primary causative agent of 'Strangles' in horses?

- A) Streptococcus equi
- B) Clostridium tetani
- C) Salmonella typhimurium
- D) Bacillus anthracis

18. Which endocrine gland secretes calcitonin, a hormone that lowers blood calcium levels?

- A) Parathyroid gland
- B) Adrenal gland
- C) Thyroid gland
- D) Pituitary gland

19. In the context of veterinary surgical sterilization, what is an 'ovariohysterectomy'?

- A) Removal of ovaries only
- B) Removal of the uterus only
- C) Removal of ovaries and uterus
- D) Removal of testicles

20. Which immunoglobulin is the most abundant in the secondary immune response and can cross the placenta?

- A) IgA
- B) IgE
- C) IgM
- D) IgG

21. What is the function of the 'tapetum lucidum' in the eyes of many nocturnal animals?

- A) Focusing light
- B) Increasing visual sensitivity in low light
- C) Color perception
- D) Protecting the cornea

22. Which diagnostic imaging modality uses ionizing radiation to create cross-sectional images?

- A) Ultrasound
- B) MRI
- C) Computed Tomography (CT)
- D) Endoscopy

23. What defines 'zoonosis' in the field of veterinary science?

- A) A disease that spreads between animals of different species
- B) A disease transmitted from animals to humans
- C) A disease that only affects domestic pets
- D) A genetic mutation in animals

24. Which muscle is primarily responsible for the flexion of the elbow joint in the forelimb?

- A) Triceps brachii
- B) Biceps brachii
- C) Deltoid
- D) Trapezius

25. In avian anatomy, which organ is responsible for the mechanical breakdown of food?

- A) Crop
- B) Proventriculus
- C) Gizzard
- D) Cloaca