

AAVSB VETERINARY TECHNICIAN NATIONAL EXAMINATION (VTNE®)

<i>Practice Domains</i>	<i>No. of Items</i>	<i>% of Items</i>
Domain 1. Pharmacy and Pharmacology	18	12%
Domain 2. Surgical Nursing	17	11%
Domain 3. Dentistry	12	8%
Domain 4. Laboratory Procedures	17	12%
Domain 5. Animal Care and Nursing	30	20%
Domain 6. Diagnostic Imaging	11	7%
Domain 7. Anesthesia	22	15%
Domain 8. Emergency Medicine/Critical Care	12	8%
Domain 9. Pain Management/Analgesia	11	7%
Total	150	100%

To be implemented with VTNE administration beginning July 2018

Domain Content Outline, Task Statements, Examination Specifications

Domain 1 Pharmacy and Pharmacology (18 items, 12%)

- TASK 1A Utilize knowledge of anatomy, physiology and pathophysiology as it applies to the use of pharmacological and biological agents.
- TASK 1B Prepare medications in compliance with veterinarian's orders.
- TASK 1C Educate the client regarding pharmacological and biological agents administered or dispensed to ensure the safety of the patient/client and efficacy of the products.
- TASK 1D Calculate fluid therapy rate.
- TASK 1E Calculate medications based on the appropriate dosage in compliance with veterinarian's orders.
- TASK 1F Dispense medications in compliance with veterinary orders.
- TASK 1G Maintain controlled drug inventory and related log books.
- TASK 1H Recognize classifications of drugs, their mechanisms, and clinically relevant side effects.
- TASK 1I Store, handle, and safely dispose of pharmacological and biological agents.

Domain 2 Surgical Nursing (17 items, 11%)

- TASK 2A Utilize knowledge of anatomy, physiology and pathophysiology as it applies to surgical nursing.
- TASK 2B Prepare the surgical environment, equipment, instruments, and supplies to meet the needs of the surgical team and patient.
- TASK 2C Prepare patient for surgical procedure.
- TASK 2D Function as a sterile surgical technician to ensure patient safety and procedural efficiency.
- TASK 2E Function as a circulating (non-sterile) surgical technician to ensure patient safety and procedural efficiency.
- TASK 2F Clean instruments by the appropriate method (e.g., manual, soak, or ultrasonic).
- TASK 2G Maintain aseptic conditions in surgical suite and during surgical procedures.
- TASK 2H Maintain the surgical environment, equipment, instruments, and supplies to meet the needs of the surgical team and patient.
- TASK 2I Sterilize equipment and supplies by the appropriate method (e.g., steam, gas).

Domain 3 Dentistry (12 items, 8%)

- TASK 3A Utilize knowledge of anatomy, physiology and pathophysiology as it applies to dentistry.
- TASK 3B Prepare the environment, equipment, instruments, and supplies for dental procedures.
- TASK 3C Perform routine dental prophylaxis (e.g., manual and machine cleaning, polishing).
- TASK 3D Educate the client regarding dental health, including prophylactic and post-treatment care.
- TASK 3E Maintain the environment, equipment, instruments, and supplies for dental procedures.
- TASK 3F Perform oral examination and documentation.
- TASK 3G Produce diagnostic dental images and/or radiographs.

Domain 4 Laboratory Procedures (17 items, 12%)

- TASK 4A Utilize knowledge of anatomy, physiology and pathophysiology as it applies to laboratory procedures.
- TASK 4B Prepare specimens and documentation for in-house or outside laboratory evaluation.
- TASK 4C Perform laboratory tests and procedures (including but not limited to microbiology, serology, cytology, hematology, urinalysis, and parasitology).
- TASK 4D Maintain laboratory equipment and related supplies to ensure quality of test results and safety of operation.
- TASK 4E Maintain specimens for in-house or outside laboratory evaluation.

Domain 5 Animal Care and Nursing (30 items, 20%)

- TASK 5A Utilize knowledge of anatomy, physiology and pathophysiology as it applies to patient care and nursing.
- TASK 5B Document initial and ongoing evaluations of physical, behavioral, nutritional, clinical procedures, and mentation status of patients to provide optimal patient/client safety and health.
- TASK 5C Perform patient nursing procedures (including but not limited to restraint, catheterization, wound management and bandaging) in the implementation of prescribed treatments.
- TASK 5D Perform clinical diagnostic procedures (including but not limited to blood pressure measurement, electrocardiography, and oximetry) to aid in diagnosis and prognosis.
- TASK 5E Educate clients and the public about animal care (including but not limited to behavior, nutrition, pre- and post-operative care, preventative care, zoonosis) to promote and maintain the health of animals and the safety of clients/public.

Domain 5 Animal Care and Nursing (30 items, 20%) continued...

- TASK 5F Provide a safe, sanitary, and comfortable environment for patients to ensure optimal healthcare and client/personnel safety.
- TASK 5G Maintain diagnostic equipment and related supplies to ensure quality of test results and safety of operation.
- TASK 5H Administer medications via the appropriate routes (e.g., aural, intravenous, subcutaneous).
- TASK 5I Collect specimens for in-house or outside laboratory evaluation.
- TASK 5J Collect patient information (e.g., signalment, medical history, primary complaint).
- TASK 5K Adherence to appropriate disposal protocols of hazardous materials.
- TASK 5L Maintain therapeutic treatments (including but not limited to catheters, wound management and bandages).
- TASK 5M Manage hospitalized patients (e.g., appetite, TPR, nutritional needs, medication, mentation).
- TASK 5N Perform physical rehabilitation as directed.
- TASK 5O Provide assistance with the euthanasia process (e.g., disposal, consent, counseling).
- TASK 5P Recognize behavioral characteristics of patients.
- TASK 5Q Utilize devices and equipment to restrain large animals (e.g., horses, cattle, goats, swine) for treatment per patient safety protocols.
- TASK 5R Utilize devices and equipment to restrain small animals (e.g., dogs, cats, birds) for treatment per patient safety protocols.

Domain 6 Diagnostic Imaging (11 items, 7%)

- TASK 6A Utilize knowledge of anatomy, physiology, and pathophysiology as it applies to diagnostic images.
- TASK 6B Produce diagnostic images and/or radiographs (excluding dental) following protocols for quality and operator/patient safety.
- TASK 6C Maintain imaging/radiograph equipment and related materials to ensure quality of results and equipment, operator, and patient safety.

Domain 7 Anesthesia (22 items, 15%)

- TASK 7A Utilize knowledge of anatomy, physiology and pathophysiology as it applies to anesthesia.
- TASK 7B Assist in the development of the anesthetic plan to ensure patient safety and procedural efficacy.
- TASK 7C Implement the anesthetic plan (including but not limited to administration of medication and monitoring) to facilitate diagnostic, therapeutic, or surgical procedures.
- TASK 7D Prepare anesthetic equipment and related materials to ensure operator and patient safety.

Domain 7 Anesthesia (22 items, 15%) continued...

- TASK 7E Educate the client about anesthetics and anesthesia to ensure the safety of the patient/client and efficacy of the product(s) or procedure(s).
- TASK 7F Maintain anesthetic equipment and related materials to ensure reliable operation.
- TASK 7G Maintain a patent airway using endotracheal intubation.
- TASK 7H Monitor patients during all stages of anesthesia (pre-, peri-, and post-).
- TASK 7I Obtain patient related information in the development of an appropriate anesthetic plan.
- TASK 7J Respond appropriately to changes in patient status during all stages of anesthesia.

Domain 8 Emergency Medicine/Critical Care (12 items, 8%)

- TASK 8A Utilize knowledge of anatomy, physiology and pathophysiology as it applies to emergency medicine and critical care.
- TASK 8B Perform triage of a patient presenting with emergency/critical conditions (including but not limited to shock, acute illness, acute trauma, and toxicity).
- TASK 8C Perform emergency nursing procedures (including but not limited to cardiopulmonary resuscitation (CPR), control acute blood loss, and fracture stabilization) in the implementation of prescribed treatments.
- TASK 8D Perform critical care nursing procedures (including but not limited to blood component therapy, fluid resuscitation, and ongoing oxygen therapy) in the implementation of prescribed treatments.
- TASK 8E Perform ongoing evaluations of physical, behavioral, nutritional, and mentation status of patients in emergency and critical conditions.

Domain 9 Pain Management/Analgesia (11 items, 7%)

- TASK 9A Utilize knowledge of anatomy, physiology and pathophysiology as it applies to pain management and analgesia.
- TASK 9B Assess need for analgesia in patient.
- TASK 9C Educate client regarding patient pain assessment and management to ensure the safety of the patient/client, and efficacy of the product(s) or procedure(s).
- TASK 9D Assist in the development and implementation of the pain management plan to optimize patient comfort and/or healing.

Knowledge Statements

1. Anatomy
2. Normal physiology
3. Pathophysiology
4. Common animal diseases
5. Medical terminology
6. Toxicology
7. Applied mathematics (including but not limited to metric system/weights, measures/percentage solutions, dosage calculations)
8. Drug classification
9. Routes of administration of pharmacological and biological agents
10. Legal requirements and procedures for acquiring, preparing, storing, dispensing, documenting and disposing of pharmacological and biological agents
11. Safe handling practices for pharmacological and biological agents
12. Pharmacokinetics (drug absorption, metabolism, excretion), normal and abnormal drug reactions, indications, contraindications, side effects, and interactions
13. Fluid balance and therapy, including calculation
14. Aseptic techniques
15. Patient preparation and positioning techniques (including but not limited to diagnostic imaging, surgery, medical procedures)
16. Surgical procedures
17. Surgical equipment, instruments, and supplies
18. Sterilization techniques and quality assurance for equipment, instruments, and supplies
19. Safety considerations related to surgical equipment, instruments, and supplies
20. Wound closure (including suture materials and patterns, staples, and tissue adhesives)
21. Dental procedures (including but not limited to cleaning, floating, charting, preventive procedures, dental imaging)
22. Dental equipment, instruments, and supplies
23. Safety considerations related to dental procedures
24. Sample collection, preparation, analysis, storing, and shipping techniques
25. Laboratory diagnostic principles, procedures, and methodologies (including but not limited to microbiology, serology, cytology, hematology, urinalysis, and parasitology)
26. Quality assurance in the laboratory (including but not limited to maintenance of equipment, verification of test results, calibration, and controls)
27. Normal and abnormal laboratory and diagnostic test results
28. Animal assessment and monitoring techniques, excluding anesthetic monitoring
29. Principles of animal behavior
30. Clinical diagnostic procedures
31. Nutrition
32. Safe animal handling and restraint techniques

33. Animal husbandry
34. Animal nursing procedures and rehabilitation therapies
35. Animal first aid, triage, and emergency/critical care techniques
36. Public health (including but not limited to infection control, zoonosis and epidemiology)
37. Environmental health and safety procedures (including but not limited to handling and disposing of hazardous material, personal safety, evacuation procedures, safety plans, equipment, and instrumentation)
38. Disease control and prevention techniques (including but not limited to quarantine, isolation, vaccination, wellness care, and herd health)
39. Facility cleaning and disinfection techniques
40. Diagnostic imaging equipment and procedures (including but not limited to radiography, ultrasonography, and contrast studies)
41. Quality assurance and safety for diagnostic imaging
42. Pre- and post-anesthetic assessment and care
43. Anesthetic induction, maintenance, monitoring, and recovery including stages of anesthesia and troubleshooting
44. Pre-anesthetic and anesthetic medications reactions, indications, contraindications, side effects, and interactions
45. Pain assessment and analgesic administration techniques
46. Procedures for care, maintenance, and use of diagnostic, therapeutic, surgical, dental, monitoring, and anesthetic equipment and supplies
47. Professional ethics (including but not limited to the Veterinary Technician Code of Ethics)
48. Techniques for communicating with the veterinary medical team and client
49. Record keeping