

## 2023 Veterinary Technician National Examination Content Outline

Domain	# Items	%
1. Pharmacy and Pharmacology	20	13%
2. Surgical Nursing	20	13%
3. Dentistry	10	7%
4. Laboratory Procedures	14	9%
5. Animal Care and Nursing	30	20%
6. Diagnostic Imaging	9	6%
7. Anesthesia	20	13%
8. Emergency Medicine/Critical Care	10	7%
9. Pain Management/Analgesia	10	7%
10. Communication and Veterinary Professional Support Services	7	5%
<b>Total</b>	<b>150</b>	<b>100%</b>

### Task Statements

<b>1</b>	<b>Pharmacy and Pharmacology</b>	<b>20</b>
A	Utilize knowledge of anatomy, physiology, and pathophysiology as it applies to the use of pharmacological, chemical, and biological agents.	
B	Prepare medications in compliance with veterinarian's orders.	
C	Calculate medications, fluid therapy rate, and continuous rate infusions based on the appropriate dosage in compliance with veterinarian's orders.	
D	Dispense medications in compliance with veterinary orders.	
E	Maintain controlled drug inventory, related logbooks, and medical records.	
F	Recognize classifications of drugs, their mechanisms, and clinically relevant side effects.	
G	Store, handle, and safely dispose of pharmacological, chemical, and biological agents.	
<b>2</b>	<b>Surgical Nursing</b>	<b>20</b>
A	Utilize knowledge of anatomy, physiology, and pathophysiology as it applies to surgical nursing.	
B	Prepare the surgical environment, equipment, instruments, and supplies to meet the needs of the surgical team and patient.	
C	Prepare patient for surgical procedure.	
D	Function as a sterile surgical technician to ensure patient safety and procedural efficiency.	
E	Function as a circulating (non-sterile) surgical technician to ensure patient safety and procedural efficiency.	

F	Clean instruments by the appropriate method (including but not limited to manual, soak, or ultrasonic).	
G	Maintain aseptic conditions in surgical suite and during surgical procedures.	
H	Maintain the surgical environment, equipment, instruments, and supplies to meet the needs of the surgical team and patient.	
I	Sterilize equipment and supplies by the appropriate method (including but not limited to steam, gas).	
<b>3</b>	<b>Dentistry</b>	<b>10</b>
A	Utilize knowledge of anatomy, physiology, and pathophysiology as it applies to dentistry.	
B	Prepare and maintain the environment, equipment, instruments, and supplies to meet the needs of the dental team and patient.	
C	Perform Comprehensive Oral Health Assessment and Treatment (COHAT) (including but not limited to scaling and polishing; manual and machine).	
D	Produce diagnostic dental radiographs.	
<b>4</b>	<b>Laboratory Procedures</b>	<b>14</b>
A	Utilize knowledge of anatomy, physiology, and pathophysiology as it applies to laboratory procedures.	
B	Prepare and maintain specimens and documentation for in-house or outside laboratory evaluation.	
C	Perform laboratory tests and procedures (including but not limited to microbiology, serology, cytology, hematology, urinalysis, and parasitology).	
D	Maintain laboratory equipment and related supplies to ensure safety and quality of results.	
<b>5</b>	<b>Animal Care and Nursing</b>	<b>30</b>
A	Utilize knowledge of anatomy, physiology, and pathophysiology as it applies to patient care and nursing.	
B	Document and manage initial and ongoing evaluations of patient to provide optimal care (including but not limited to physical, behavioral, nutritional, clinical procedures, and mentation status).	
C	Perform nursing procedures and maintenance of prescribed treatments (including but not limited to catheterization, wound management, and bandaging).	
D	Perform clinical procedures to aid in diagnosis and prognosis (including but not limited to blood pressure measurement, electrocardiography, and tonometry).	
E	Provide a safe, sanitary, and comfortable environment for patient to ensure optimal healthcare and client/personnel safety.	
F	Maintain diagnostic equipment and related supplies to ensure safety and quality of results.	
G	Administer medications via the appropriate routes (including but not limited to topical, intravenous, subcutaneous).	

H	Collect specimens for in-house or outside laboratory evaluation.	
I	Recognize and respond to behavioral characteristics of patient.	
J	Restrain patient with or without equipment for treatment following safety protocols.	
<b>6</b>	<b>Diagnostic Imaging</b>	<b>9</b>
A	Utilize knowledge of anatomy, physiology, and pathophysiology as it applies to diagnostic images.	
B	Produce and document diagnostic images and/or radiographs (excluding dental) following protocols for safety and quality of results.	
C	Maintain imaging/radiograph equipment and related materials to ensure safety and quality of results.	
<b>7</b>	<b>Anesthesia</b>	<b>20</b>
A	Utilize knowledge of anatomy, physiology, and pathophysiology as it applies to anesthesia.	
B	Assist in the development and implementation of an anesthetic plan to ensure patient safety and procedural efficacy.	
C	Prepare anesthetic equipment and related supplies to ensure operator and patient safety.	
D	Maintain anesthetic equipment and related materials to ensure reliable operation.	
E	Establish and maintain a patent airway using endotracheal intubation.	
F	Monitor and respond to patient status during all stages of anesthesia (pre-, peri-, and post-).	
<b>8</b>	<b>Emergency Medicine/Critical Care</b>	<b>10</b>
A	Utilize knowledge of anatomy, physiology, and pathophysiology as it applies to emergency medicine and critical care.	
B	Perform triage of a patient presenting with emergency/critical conditions (including but not limited to shock, acute illness, acute trauma, and toxicity).	
C	Perform emergency nursing procedures (including but not limited to cardiopulmonary resuscitation (CPR), control acute blood loss, and fracture stabilization).	
D	Perform critical care nursing procedures (including but not limited to blood component therapy, fluid resuscitation, and ongoing oxygen therapy).	
E	Perform ongoing evaluations of physical, behavioral, nutritional, and mentation status of patient in emergency and critical conditions.	
<b>9</b>	<b>Pain Management/Analgesia</b>	<b>10</b>
A	Utilize knowledge of anatomy, physiology, and pathophysiology as it applies to pain management and analgesia.	
B	Recognize need for analgesia in patient.	
C	Assist in the development and implementation of the pain management plan to optimize patient comfort and/or healing.	

<b>10</b>	<b>Communication and Veterinary Professional Support Services</b>	<b>7</b>
A	Educate the client about animal care, risks, and side effects to promote and maintain the health of animals and the safety of client/public (including but not limited to behavior, nutrition, pharmacological/biological/chemical agents, dental health, anesthetic procedures, pain assessment/management, pre- and post-operative care, preventative care, zoonosis)	
B	Maintain professional communication in all client and veterinary team interactions.	
C	Collect patient information (including but not limited to signalment, medical history, primary complaint).	
D	Provide assistance with the euthanasia process (including but not limited to consent, aftercare, grief management).	
<b>Total</b>		<b>150</b>

### Knowledge Statements

	<b>Knowledge Statement</b>
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, chemical, and biological agents
10	Legal requirements and procedures for acquiring, preparing, storing, dispensing, documenting and disposing of pharmacological, chemical, and biological agents
11	Safe handling practices for pharmacological, chemical, 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 but not limited to 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	Diagnostic imaging equipment and procedures (including but not limited to radiography, ultrasonography, and contrast studies)
40	Quality assurance and safety for diagnostic imaging
41	Pre- and post-anesthetic assessment and care
42	Anesthetic induction, maintenance, monitoring, and recovery including stages of anesthesia and troubleshooting
43	Pre-anesthetic and anesthetic medications reactions, indications, contraindications, side effects, and interactions
44	Pain assessment and analgesic administration techniques
45	Procedures for care, maintenance, and use of diagnostic, therapeutic, surgical, dental, monitoring, and anesthetic equipment and supplies
46	Professional ethics (including but not limited to the Veterinary Technician Code of Ethics)
47	Techniques for communicating with the veterinary medical team and client



48	Record keeping
49	Signs of suspected animal abuse (including but not limited to physical and emotional trauma).
50	Crisis intervention skills