Veterinary Medical Board

OCCUPATIONAL ANALYSIS OF THE VETERINARIAN PROFESSION

REVISED JULY 2020

STATE OF CALIFORNIA

DEPARTMENT OF CONSUMER AFFAIRS

VETERINARY MEDICAL BOARD

OCCUPATIONAL ANALYSIS OF THE VETERINARIAN PROFESSION

August 2019 – Revised July 2020

Maria Avalos, Research Data Analyst II
Sanja Durman-Perez, Research Data Specialist II
Brian Knox, Research Data Analyst II
Heidi Lincer, Ph.D., Chief

STATE OF CALIFORNIA
DEPARTMENT OF CONSUMER AFFAIRS
OFFICE OF PROFESSIONAL EXAMINATION SERVICES

This occupational analysis report is mandated by California Business and Professions (B&P) Code § 139 and by DCA Licensure Examination Validation Policy OPES 18-02.

EXECUTIVE SUMMARY

The Veterinary Medical Board (Board) requested that the Department of Consumer Affairs' Office of Professional Examination Services (OPES) conduct an occupational analysis (OA) of veterinary medical practice in California. The purpose of the OA is to define practice for veterinarians in terms of the actual tasks that new licensees must be able to perform safely and competently at the time of licensure. The results of this OA provide a description of practice for the veterinarian profession that can then be used to review the North American Veterinary Licensing Examination (NAVLE) for continued use in California; to develop the California Veterinary State Board Examination (CSB); and to develop the California Veterinary Law Examination (VLE).

OPES test specialists began by researching the profession and conducting telephone interviews with licensed veterinarians working in locations throughout California. The purpose of these interviews was to identify the tasks performed by veterinarians and to specify the knowledge required to perform those tasks in a safe and competent manner. Using the information gathered from the research and the interviews, OPES test specialists developed a preliminary list of tasks performed in veterinary medical practice along with statements representing the knowledge needed to perform those tasks.

In November 2018, OPES convened a workshop to review and refine the preliminary lists of task and knowledge statements derived from the telephone interviews. The workshop comprised licensed veterinarians, or subject matter experts (SMEs), with diverse backgrounds in the profession (i.e., location of practice, years licensed, specialty). These SMEs also identified changes and trends in veterinary medical practice, determined demographic questions for the OA questionnaire, and performed a preliminary linkage of the task and knowledge statements to ensure that all tasks had a related knowledge and all knowledge statements had a related task. Additional task and knowledge statements were created as needed to complete the scope of the content areas of the description of practice. A second workshop was held in March 2019 with a different group of veterinarians to review and refine the results from the initial workshop.

Upon completion of the second workshop, OPES test specialists developed a three-part OA questionnaire to be completed by licensed veterinarians statewide. Development of the OA questionnaire included a pilot study that was conducted using a group of licensed veterinarians. The pilot study participants' feedback was incorporated into the final questionnaire, which was administered in May 2019.

In the first part of the OA questionnaire, veterinarians were asked to provide demographic information relating to their work settings and practice. In the second part, veterinarians were asked to rate how often they perform specific tasks in their current practice (Frequency) and how important the tasks are to effective performance of their current practice (Importance). In the third part, veterinarians were asked to rate how important specific knowledge statements are to effective performance of their current practice.

In May 2019, on behalf of the Board, OPES sent an email to a sample of 5,645 actively licensed veterinarians with a California address (55% of the total population of 10,227 actively licensed veterinarians with a California address), asking them to complete the online OA questionnaire. The email invitation was sent to veterinarians with a California address for whom the Board had an email address on file.

A total of 564 veterinarians responded by accessing the online OA questionnaire. The final sample size included in the data analysis was 236, or approximately 4% of the sample. This response rate reflects two adjustments. First, OPES excluded data from respondents who indicated they were not currently licensed and practicing as veterinarians in California. Second, questionnaires containing a large volume of incomplete or unresponsive data were removed. Despite the low response rate, the demographic composition of the respondent sample appears representative of the licensed veterinarian population in California.

OPES test specialists then performed data analyses of the task and knowledge ratings obtained from the OA questionnaire respondents. The task frequency and importance ratings were combined to derive an overall criticality index for each task statement. The mean importance rating was used as the criticality index for each knowledge statement.

Once the data was analyzed, OPES conducted an additional workshop with veterinarians in July 2019. The SMEs evaluated the criticality indices and determined whether any task or knowledge statements should be eliminated. The SMEs in this group also established the final linkage between tasks and knowledge statements, organized the task and knowledge statements into content areas, and wrote descriptions of those areas. The SMEs then evaluated and confirmed the content area weights of the examination outline.

The examination outline is structured into nine content areas weighted by criticality relative to the other content areas. This outline provides a description of practice for veterinarians, and it also identifies the tasks and knowledge critical to safe and effective practice of veterinary medicine in California at the time of licensure. Additionally, this examination outline provides a basis for evaluating the degree to which the content of any examination under consideration measures content critical to veterinary practice in California.

At this time, California licensure as a veterinarian is granted by meeting the requisite educational and experience requirements; passing the NAVLE; passing the CSB; and passing the VLE, if the applicant is a reciprocity license applicant or a graduate of a non-California veterinary school.

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OVERVIEW OF THE VETERINARIAN EXAMINATION OUTLINE

	Content Area	Content Area Description	Percent Weight
1.	Patient Signalment and History	This area assesses the candidate's knowledge of determining signalment, chief complaint, prior health status, and historical factors pertinent to current condition.	12
2.	Patient Physical Examination	This area assesses the candidate's knowledge of gathering data by inspection and physical examination to evaluate current health and environmental status.	20
3.	Patient Data Assessment	This area assesses the candidate's knowledge of determining clinical status, forming differential diagnoses, identifying health risks to animal and human populations, and determining presence of abuse or neglect.	8
4.	Diagnostic Planning and Procedures	This area assesses the candidate's knowledge of determining diagnostic plans, and performing or ordering tests and procedures to establish diagnoses.	13
5.	Diagnostic Interpretation	This area assesses the candidate's knowledge of evaluating the results of tests and procedures to establish patient diagnoses and prognoses.	6
6.	Treatment Planning	This area assesses the candidate's knowledge of formulating treatment plans based on diagnostics and communicating treatment options to client.	11
7.	Treatment	This area assesses the candidate's knowledge of administering medical, surgical, and therapeutic procedures indicated by the treatment plan.	12
8.	Disease Prevention and Health Management	This area assesses the candidate's knowledge of developing preventative plans and programs to promote animal health and public safety.	5
9.	Professional and Legal Responsibilities	This area assesses the candidate's knowledge of compliance with state and federal laws and regulations, including veterinary practice standards, reportable diseases, animal movement, and disaster response.	13
	Total		**100**

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CHAPTER 1 | INTRODUCTION

PURPOSE OF THE OCCUPATIONAL ANALYSIS

The Veterinary Medical Board (Board) requested that the Department of Consumer Affairs' Office of Professional Examination Services (OPES) conduct an occupational analysis (OA) as part of the Board's comprehensive review of veterinary practice in California. The purpose of the OA is to identify critical activities performed by veterinarians in California.

The results of this OA provide a description of practice for the veterinarian profession that can then be used to review or develop the examinations currently required for licensure as a veterinarian in California. At this time, licensure is granted by fulfilling requirements that include:

- Passing the North American Veterinary Licensing Examination (NAVLE).
- Passing the California Veterinary State Board Examination (CSB).
- Passing the California Veterinary Law Examination (VLE), a mail-out examination that tests knowledge of information in the California Veterinary Medicine Practice Act, if the applicant is a graduate of a non-California veterinary school or a reciprocity license applicant. University of California, Davis and Western University of Health Sciences senior students are exempt from the VLE requirement.
- Meeting educational and experience requirements.

The description of practice resulting from this OA can be used to review the NAVLE, develop the CSB, and develop the VLE. Candidates must pass all three examinations within 60 months of passing the first of the three.

CONTENT VALIDATION STRATEGY

OPES used a content validation strategy to ensure that the OA reflected the actual tasks performed by practicing veterinarians. OPES incorporated the technical expertise of California veterinarians throughout the OA process to ensure that the identified task and knowledge statements directly reflect requirements for performance in current practice.

PARTICIPATION OF SUBJECT MATTER EXPERTS

The Board selected California veterinarians to participate as subject matter experts (SMEs) during the phases of the OA. These SMEs were selected from a broad range of practice settings, geographic locations, and experience backgrounds. During the development phase of the OA, the SMEs provided information regarding the different aspects of current practice of veterinary medicine. The SMEs also provided technical expertise during the three workshops that were convened to evaluate and refine the content of task and knowledge statements before administration of the OA questionnaire. After the administration of the OA questionnaire, OPES convened an additional group of SMEs to review the results and finalize the examination outline, which ultimately provides the basis of the description of practice.

ADHERENCE TO LEGAL STANDARDS AND GUIDELINES

Licensing, certification, and registration programs in the State of California adhere strictly to federal and state laws and regulations, as well as professional guidelines and technical standards. For the purposes of occupational analyses, the following laws and guidelines are authoritative:

- California Business and Professions Code section 139.
- Uniform Guidelines on Employee Selection Procedures (1978), Code of Federal Regulations, title 29, section 1607.
- California Fair Employment and Housing Act, Government Code section 12944.
- *Principles for the Validation and Use of Personnel Selection Procedures* (2018), Society for Industrial and Organizational Psychology (SIOP).
- *Standards for Educational and Psychological Testing* (2014), American Educational Research Association, American Psychological Association, and National Council on Measurement in Education.

For a licensure examination to meet these standards, it must be solidly based upon the activities required for practice.

DESCRIPTION OF OCCUPATION

The veterinarian occupation is described as follows in section 4826 of the California Business and Professions Code:

> A person practices veterinary medicine, surgery, and dentistry, and the various branches thereof, when he or she does any one of the following:
>
> (a) Represents himself or herself as engaged in the practice of veterinary medicine, veterinary surgery, or veterinary dentistry in any of its branches.
>
> (b) Diagnoses or prescribes a drug, medicine, appliance, application, or treatment of whatever nature for the prevention, cure, or relief of a wound, fracture, bodily injury, or disease of animals.
>
> (c) Administers a drug, medicine, appliance, application, or treatment of whatever nature for the prevention, cure, or relief of a wound, fracture, bodily injury, or disease of animals, except where the medicine, appliance, application, or treatment is administered by a registered veterinary technician or a veterinary assistant at the direction of and under the direct supervision of a licensed veterinarian subject to Article 2.5 (commencing with Section 4832) or where the drug, including, but not limited to, a drug that is a controlled substance, is administered by a registered veterinary technician or a veterinary assistant pursuant to Section 4836.1. However, no person, other than a

licensed veterinarian, may induce anesthesia unless authorized by regulation of the board.

(d) Performs a surgical or dental operation upon an animal.

(e) Performs any manual procedure for the diagnosis of pregnancy, sterility, or infertility upon livestock or Equidae.

(f) Uses any words, letters, or titles in such connection or under such circumstances as to induce the belief that the person using them is engaged in the practice of veterinary medicine, veterinary surgery, or veterinary dentistry. This use shall be prima facie evidence of the intention to represent himself or herself as engaged in the practice of veterinary medicine, veterinary surgery, or veterinary dentistry.

CHAPTER 2 | OCCUPATIONAL ANALYSIS QUESTIONNAIRE

SUBJECT MATTER EXPERT INTERVIEWS

The Board provided OPES with a list of licensed veterinarians to contact for telephone interviews. During the semi-structured interviews, seven veterinarians were asked to identify activities they perform on the job that are specific to the veterinarian profession and to identify current developments, trends, and needs related to the profession.

TASK AND KNOWLEDGE STATEMENTS

To develop task and knowledge statements, OPES test specialists integrated the information gathered from literature reviews of profession-related sources (e.g., laws and regulations, previous OA reports, articles, industry publications) and from interviews with veterinarian SMEs.

In November 2018, OPES test specialists facilitated a workshop with seven veterinarians from diverse backgrounds (i.e., years licensed, specialty, and practice location) to evaluate the task and knowledge statements for technical accuracy and comprehensiveness.

In March 2019, OPES test specialists facilitated a second workshop with a group of four additional SMEs. OPES presented the task and knowledge statements to the SMEs, and they assigned each statement to a content area and verified that the content areas were independent and nonoverlapping. In addition, the SMEs performed a preliminary linkage of the task and knowledge statements to ensure that every task had a related knowledge and every knowledge statement had a related task. The SMEs also verified proposed demographic questions for the OA questionnaire, including questions regarding scope of practice and practice setting.

After SME verification of the lists of task and knowledge statements and of the demographic questions, OPES used this information to develop an online questionnaire that was sent to California veterinarians for completion and evaluation.

QUESTIONNAIRE DEVELOPMENT

OPES test specialists developed an online OA questionnaire designed to solicit veterinarians' ratings of the task and knowledge statements. The surveyed veterinarians were instructed to rate how often they perform each task (Frequency) and how important the task is to the effective performance of their current practice (Importance). In addition, they were instructed to rate how important each knowledge statement is to the effective performance of their current practice (Importance). The OA questionnaire also included a demographic section for purposes of developing an accurate profile of the respondents. The OA questionnaire can be found in Appendix E.

PILOT STUDY

Before administering the final questionnaire, OPES conducted a pilot study of the online questionnaire. The draft questionnaire was reviewed by the Board and then sent to 12 SMEs who had participated in the task and knowledge statement development workshops. OPES received feedback to the pilot study from 7 respondents. The respondents reviewed the online questionnaire, provided the estimated time for completion, and reviewed the online navigation and ease of use of the questionnaire. OPES used this feedback to administer the final questionnaire.

CHAPTER 3 | RESPONSE RATE AND DEMOGRAPHICS

SAMPLING STRATEGY AND RESPONSE RATE

In May 2019, on behalf of the Board, OPES sent an email to a sample of 5,645 actively licensed veterinarians with a California address (55% of the total population of 10,227 actively licensed veterinarians with a California address), asking them to complete the online OA questionnaire. The email invitation was sent to veterinarians with a California address for whom the Board had an email address on file.

A total of 564 veterinarians responded by accessing the online OA questionnaire. The final sample size included in the data analysis was 236, or approximately 4% of the sample. This response rate reflects two adjustments. First, OPES excluded data from respondents who indicated they were not currently licensed and practicing as veterinarians in California. Second, questionnaires containing a large volume of missing or unresponsive data were also excluded. Despite the low response rate, the respondent sample appears representative of the population of California veterinarians based on the sample's demographic composition.

DEMOGRAPHIC SUMMARY

As shown in Table 1 and Figure 1, 37.3% of the respondents included in the analysis reported that they have been practicing as a veterinarian for 16 or more years, 27.1% reported that they have been practicing between 6 and 10 years, 26.3% reported that they have been practicing for 5 years or less, and 8.9% reported that they have been practicing between 11 and 15 years.

As shown in Table 2 and Figure 2, when asked to indicate the number of years they have been practicing veterinary medicine in California, 39% of respondents reported that they have been practicing for 5 years or less, 30.9% of respondents reported that they have been practicing 16 years or more, 22.5% of respondents reported that they have been practicing between 6 and 10 years, and 7.6% of respondents reported that they have been practicing between 11 and 15 years.

As shown in Table 3 and Figure 3, most respondents (55.1%) reported working 41 hours or more per week as a licensed veterinarian, 26.7% reported working 31 to 40 hours per week, 10.2% reported working 21 to 30 hours per week, 3.8% reported working 0 to 10 hours per week, and 4.2% reported working 11 to 20 hours per week.

As shown in Table 4 and Figure 4, most practitioners (47%) reported that they worked with a group of 1 to 3 other veterinarians, 16.5% reported that they worked in a larger group of 11 or more other veterinarians, 16.1% reported working as the sole veterinarian, 11% reported that they worked with a group of 4 to 5 other veterinarians, and 9.3% reported that they worked with a group of 6 to 10 other veterinarians.

The majority of respondents (88.5%) reported working primarily as a practitioner, 4.7% reported having other work responsibilities, 2.5% reported working primarily in education/research, 2.1%

reported working as a consultant, and 2.1% reported having management responsibilities (see Table 5 and Figure 5).

When asked to describe their primary employer, 59.3% of the respondents reported private practice, 26.7% reported corporation, 3.8% reported government, 3.8% reported other, 3.4% reported academia, and 3% reported nonprofit (see Table 6 and Figure 6).

Table 7 and Figure 7 show the practice specialties reported by the respondents. The majority (84.3%) reported small animal practice, 14% reported exotic/zoo/wildlife practice, 8.5% reported shelter medicine, 8.1% reported equine practice, and 6.4% reported food animal practice.

Table 8 shows the types of patients treated by veterinarians: 88.6% reported treating cats; 87.7% reported treating dogs; 30.9% reported treating exotic animals such as amphibians, reptiles, chinchillas, fish, guinea pigs, hamsters, and rabbits; 16.1% reported treating avian patients (pet birds); and 12.3% reported treating equine patients.

Table 9 shows primary work setting (urban or rural), and Table 10 shows respondents by region.

More detailed demographic information from respondents can be found in Tables 1 through 10 and Figures 1 through 8.

TABLE 1 – NUMBER OF YEARS LICENSED AS A VETERINARIAN

YEARS	NUMBER (N)	PERCENT
0 to 5 years	62	26.3
6 to 10 years	64	27.1
11 to 15 years	21	8.9
16 or more years	88	37.3
Total	235	100*

*NOTE: Percentages do not add to 100 due to rounding.

FIGURE 1 – NUMBER OF YEARS LICENSED AS A VETERINARIAN

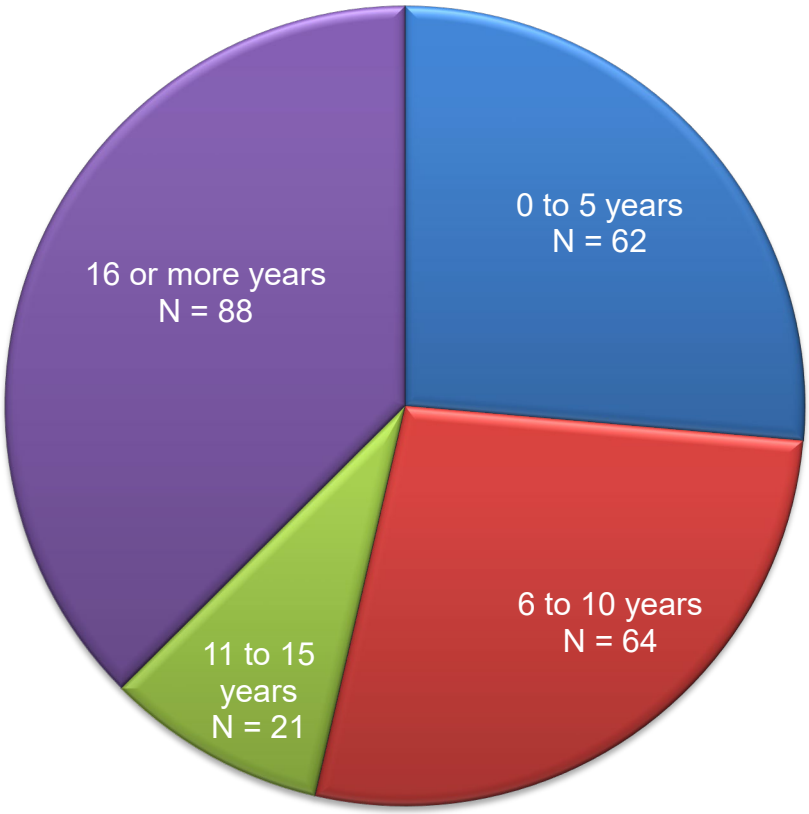

TABLE 2 – NUMBER OF YEARS PRACTICING AS A VETERINARIAN

DEGREE	NUMBER (N)	PERCENT
0 to 5 years	92	39.0
6 to 10 years	53	22.5
11 to 15 years	18	7.6
16 or more years	73	30.9
Total	236	100

FIGURE 2 – NUMBER OF YEARS PRACTICING AS A VETERINARIAN

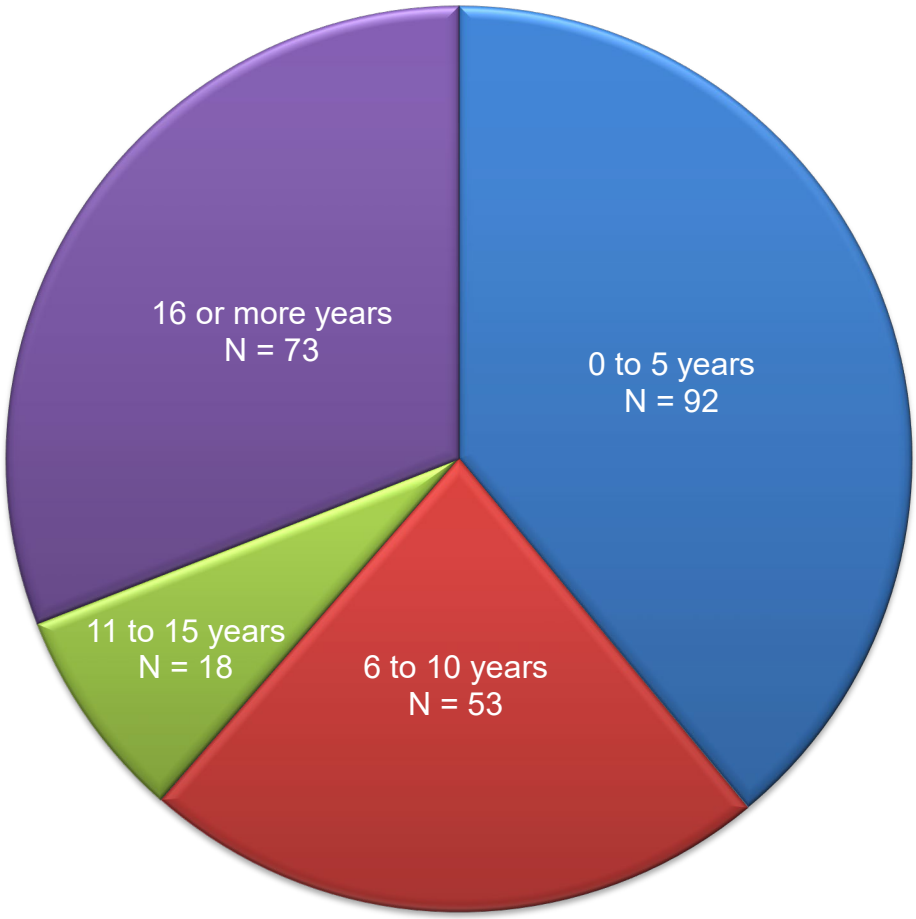

TABLE 3 – HOURS WORKED PER WEEK AS A LICENSED VETERINARIAN

SUBJECT	NUMBER (N)	PERCENT
0 to 10 hours	9	3.8
11 to 20 hours	10	4.2
21 to 30 hours	24	10.2
31 to 40 hours	63	26.7
41 or more hours	130	55.1
Total	236	100

FIGURE 3 – HOURS WORKED PER WEEK AS A LICENSED VETERINARIAN

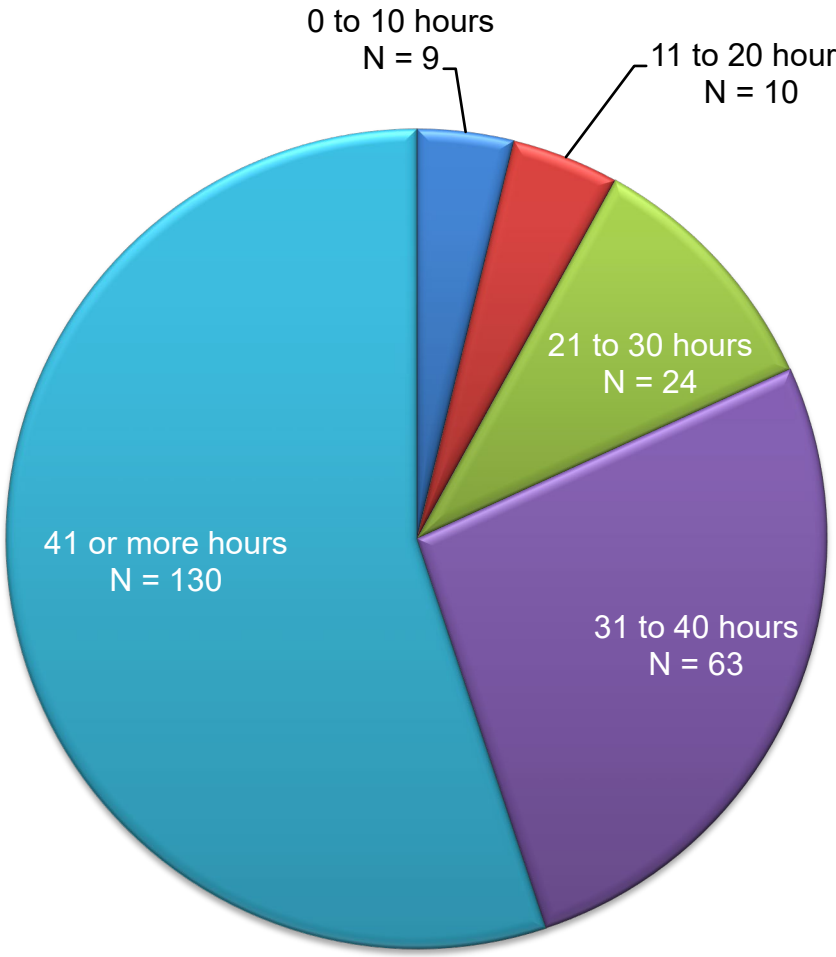

TABLE 4 – OTHER LICENSED VETERINARIANS WORKING IN PRACTICE

SETTING	NUMBER (N)	PERCENT
I am the sole veterinarian	38	16.1
1 to 3 other veterinarians	111	47.0
4 to 5 other veterinarians	26	11.0
6 to 10 other veterinarians	22	9.3
11 or more other veterinarians	39	16.5
Total	236	100*

*NOTE: Percentages do not add to 100 due to rounding.

FIGURE 4 – OTHER LICENSED VETERINARIANS WORKING IN PRACTICE

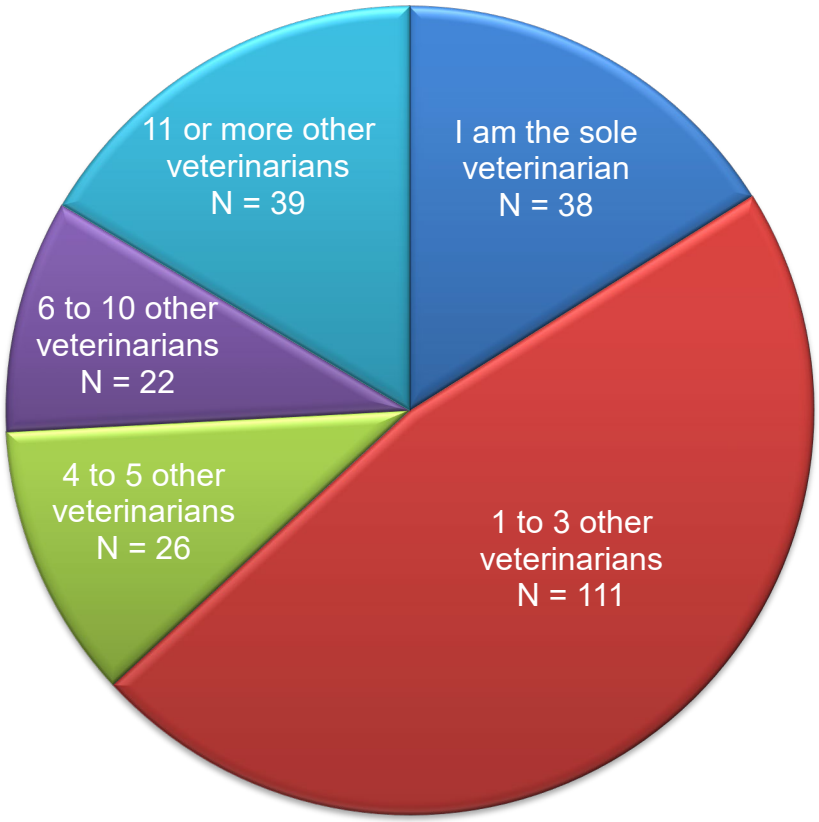

TABLE 5 – MAJORITY OF WORK RESPONSIBILITIES

SETTING	NUMBER (N)	PERCENT
Practitioner	208	88.5
Consultant	5	2.1
Education/Research	6	2.5
Management	5	2.1
Other	11	4.7
Total	235	100*

*NOTE: Percentages do not add to 100 due to rounding.

FIGURE 5 – MAJORITY OF WORK RESPONSIBILITIES

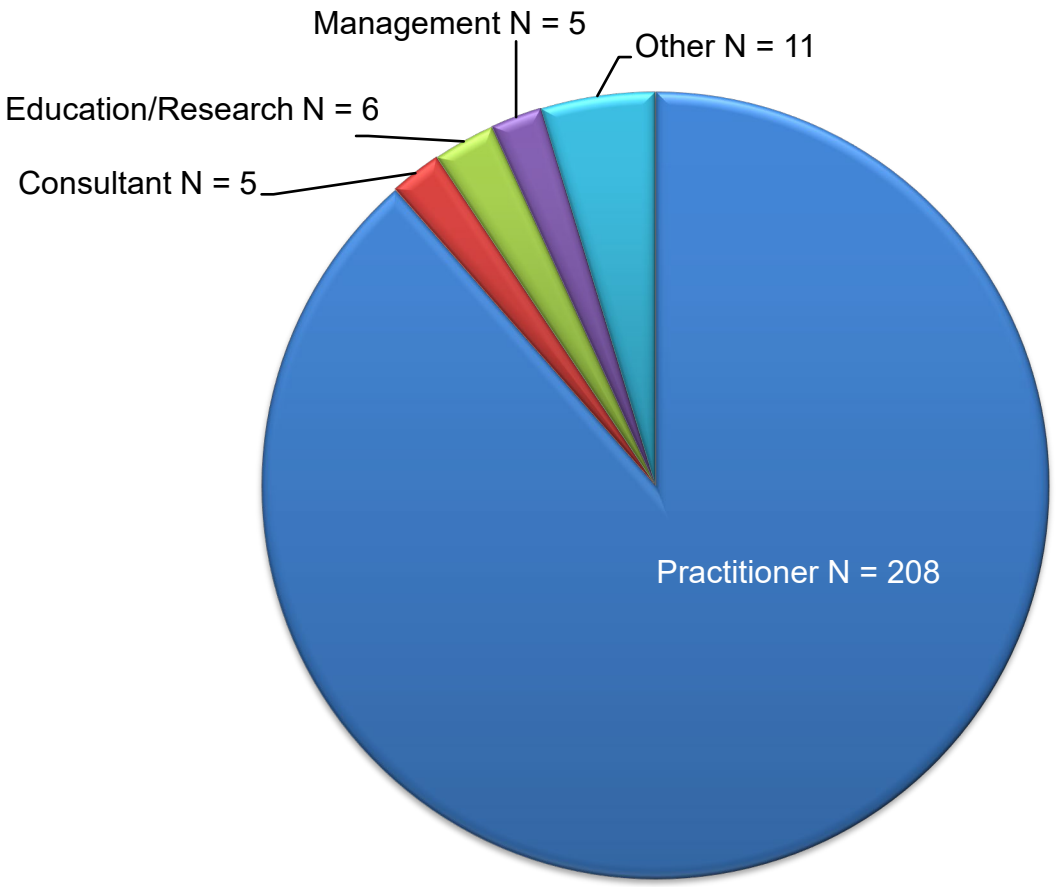

TABLE 6 – PRIMARY EMPLOYER

HOURS	NUMBER (N)	PERCENT
Private practice	140	59.3
Corporation	63	26.7
Government	9	3.8
Academia	8	3.4
Nonprofit	7	3.0
Other	9	3.8
Total	236	100

FIGURE 6 – PRIMARY EMPLOYER

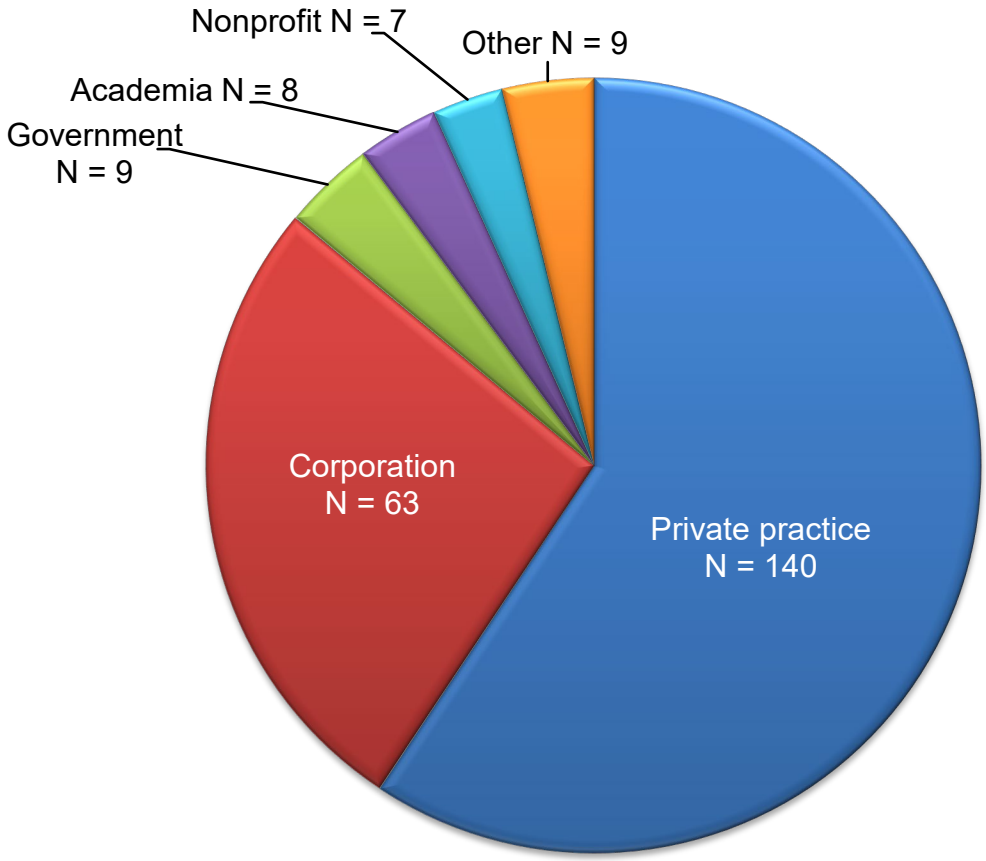

TABLE 7 – PRACTICE SPECIALTY*

ACTIVITY	NUMBER (N)	PERCENT*
Small animal	199	84.3
Equine	19	8.1
Food animal	15	6.4
Mixed practice	8	3.4
Regulatory	9	3.8
Academic/research	13	5.5
Exotic/zoo/wildlife	33	14.0
Shelter medicine	20	8.5
Laboratory/Biologic/Pharmaceutical	10	4.2

*NOTE: Respondents were asked to select all that apply. Percentages indicate the proportion in the sample of respondents.

FIGURE 7 – PRACTICE SPECIALTY

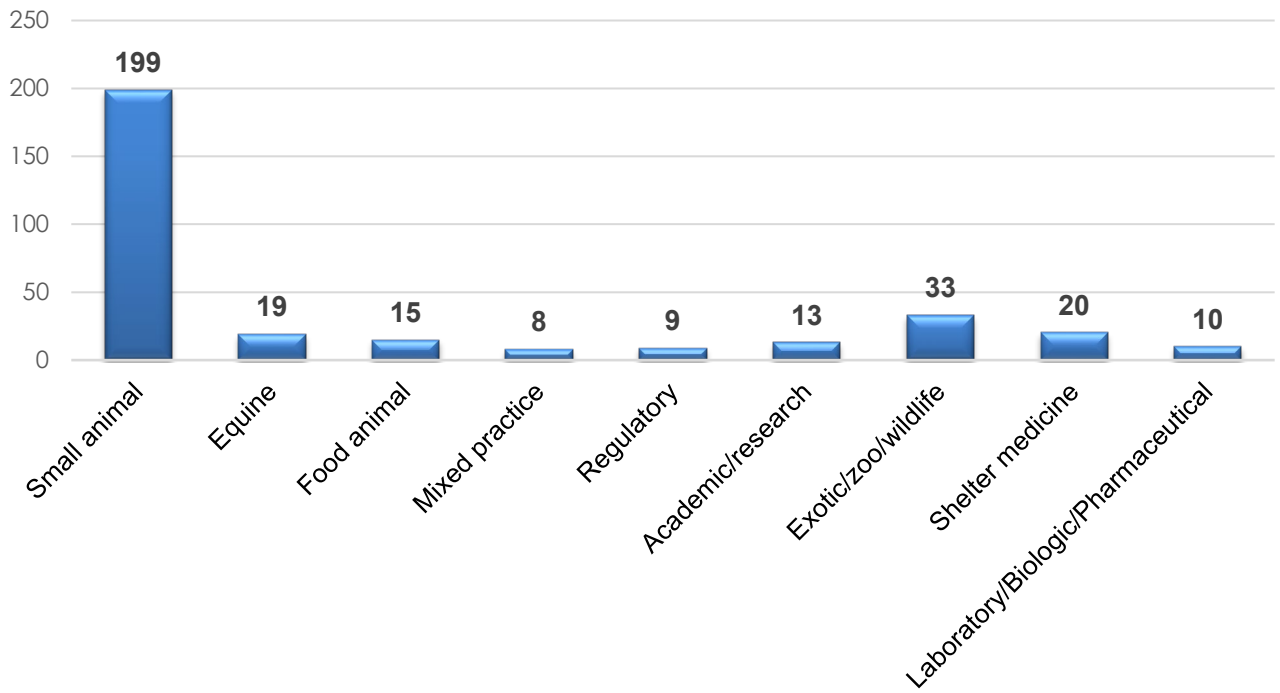

TABLE 8 – PATIENTS TREATED*

TYPES OF PATIENTS*	NUMBER (N)	PERCENT*
Avian (commercial poultry or fowl)	20	8.5
Avian (pet bird)	38	16.1
Cats	209	88.6
Cattle (beef or dairy)	17	7.2
Camelids	10	4.2
Dogs	207	87.7
Equine (horses)	29	12.3
Other equine (e.g., donkeys, mules)	17	7.2
Exotic animals (e.g., amphibians, reptiles, chinchillas, fish, guinea pigs, hamsters, rabbits)	73	30.9
Sheep and goats	25	10.6
Swine	20	8.5
Zoo or wild animals (e.g., nonhuman primates)	16	6.8
Aquatic or marine	10	4.2
None, I do not treat animals	5	2.1
Rats/mice/lab animals	4	1.6

*NOTE: Respondents were asked to select all that apply. Percentages indicate the proportion in the sample of respondents.

FIGURE 8 – PATIENTS TREATED

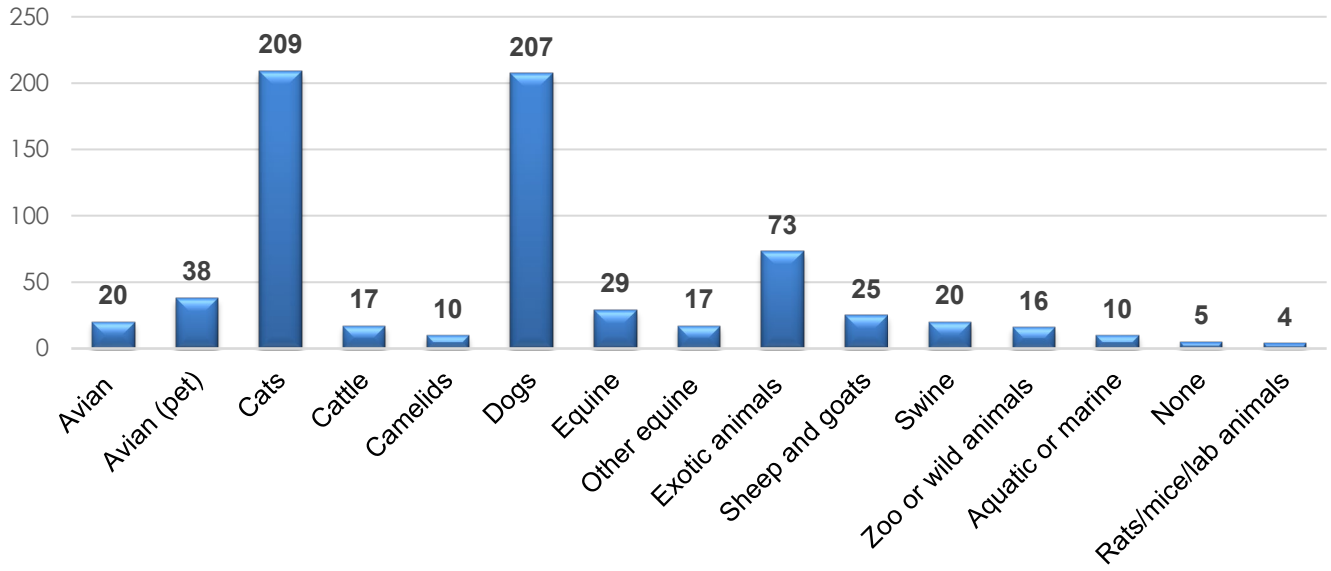

TABLE 9 – PRIMARY WORK SETTING

LOCATION	NUMBER (N)	PERCENT
Urban (more than 50,000 people)	201	85.2
Rural (fewer than 50,000 people)	35	14.8
Total	236	100

TABLE 10 – RESPONDENTS BY REGION

REGION NAME	NUMBER (N)	PERCENT
Los Angeles County and Vicinity	62	26.3
San Francisco Bay Area	52	22.0
San Joaquin Valley	24	10.2
Sacramento Valley	19	8.1
San Diego County and Vicinity	23	9.7
Shasta - Cascade	4	1.7
Riverside and Vicinity	17	7.2
Sierra Mountain Valley	9	3.8
North Coast	11	4.7
South Coast and Central Coast	14	5.9
Total	235	100*

*NOTE: Percentages do not add to 100 due to rounding.

Appendix A shows a more detailed breakdown of the frequencies by region.

CHAPTER 4 | DATA ANALYSIS AND RESULTS

RELIABILITY OF RATINGS

OPES evaluated the task and knowledge ratings obtained by the questionnaire with a standard index of reliability, coefficient alpha (α), which ranges from 0 to 1. Coefficient alpha is an estimate of the internal consistency of the respondents' ratings of the task and knowledge statements. A higher coefficient value indicates more consistency between respondent ratings. Coefficients were calculated for all respondent ratings.

Table 11 displays the reliability coefficients for the task statement rating scale in each content area. The overall ratings of task frequency and task importance across content areas were highly reliable (frequency α = .969; importance α = .971). Table 12 displays the reliability coefficients for the knowledge statement rating scale in each content area. The overall ratings of knowledge importance across content areas were highly reliable (α = .984). These results indicate that the responding veterinarians rated the task and knowledge statements consistently throughout the questionnaire.

TABLE 11 – TASK SCALE RELIABILITY

CONTENT AREA	NUMBER OF TASKS	α FREQUENCY	α IMPORTANCE
1. Patient Signalment and History	11	.905	.899
2. Patient Physical Examination	16	.932	.924
3. Patient Data Assessment	7	.779	.917
4. Diagnostic Planning and Procedures	6	.770	.762
5. Diagnostic Interpretation	5	.756	.750
6. Treatment Planning	10	.833	.829
7. Treatment	12	.881	.886
8. Disease Prevention and Health Management	13	.853	.853
9. Professional and Legal Responsibilities	19	.820	.858
Total	99	.969*	.971*

*NOTE: The total shown is not the sum of the individual content area ratings of task frequency and importance but rather the overall rating of task frequency and task importance.

TABLE 12 – KNOWLEDGE SCALE RELIABILITY

CONTENT AREA	NUMBER OF KNOWLEDGE STATEMENTS	α IMPORTANCE
1. Patient Signalment and History	12	.898
2. Patient Physical Examination	9	.848
3. Patient Data Assessment	13	.922
4. Diagnostic Planning and Procedures	7	.850
5. Diagnostic Interpretation	6	.848
6. Treatment Planning	14	.897
7. Treatment	15	.831
8. Disease Prevention and Health Management	15	.941
9. Professional and Legal Responsibilities	26	.956
Total	117	.984*

*NOTE: The total shown is not the sum of the individual content area ratings of task frequency and importance but rather the overall rating of task frequency and task importance.

TASK CRITICALITY INDICES

OPES convened a workshop consisting of seven SMEs in July 2019. The purpose of this workshop was to identify the essential tasks and knowledge required for safe and effective veterinary medical practice at the time of licensure. The SMEs reviewed the mean frequency, mean importance, and criticality index for each task. They also reviewed the mean importance ratings for each knowledge statement.

To calculate the criticality indices of the task statements, OPES test specialists used the following formula. For each respondent, OPES first multiplied the frequency rating (Fi) and the importance rating (Ii) for each task. Next, OPES averaged the multiplication products across respondents as shown below:

Task criticality index = mean [(Fi) X (Ii)]

The task statements were sorted in descending order by criticality index and by content area. The task statements, their mean frequency and importance ratings, and their associated criticality indices are presented in Appendix B.

The SMEs who participated in the July 2019 workshop evaluated the task criticality indices derived from the questionnaire results. OPES test specialists instructed the SMEs to identify a cutoff value in order to determine if any of the tasks did not have a high enough criticality index to be retained. The SMEs determined that all tasks should be retained.

KNOWLEDGE IMPORTANCE RATINGS

To determine the criticality of each knowledge statement, the mean importance (K Imp) rating for each knowledge statement was calculated. The knowledge statements and their mean importance ratings, sorted by descending order and content area, are presented in Appendix C.

The SMEs who participated in the July 2019 workshop that evaluated the task criticality indices also reviewed the knowledge statement mean importance ratings. The SMEs determined that all knowledge statements should be retained.

CHAPTER 5 | EXAMINATION OUTLINE

TASK-KNOWLEDGE LINKAGE

The SMEs who participated in the July 2019 workshop reviewed the preliminary assignments of the task and knowledge statements to content areas from the November 2018 and March 2019 workshops. The SMEs established the final linkage of specific knowledge statements to task statements. The SMEs reviewed the content areas and wrote descriptions for each content area.

CONTENT AREAS AND WEIGHTS

The SMEs in the July 2019 workshop were also asked to finalize the weights for the content areas on the veterinarian examination outline. OPES test specialists presented the SMEs with preliminary weights of the content areas that were calculated by dividing the sum of the criticality indices for the tasks in each content area by the overall sum of the criticality indices for all tasks, as shown below.

$$\frac{\textit{Sum of Criticality Indices for Tasks in Content Area}}{\textit{Sum of Criticality Indices for All Tasks}} = \textit{Percent Weight of Content Area}$$

The SMEs evaluated the preliminary weights by reviewing the following elements for each content area: the group of tasks and knowledge, the linkage established between the tasks and knowledge, and the relative importance of the tasks to veterinary practice in California. The SMEs adjusted the preliminary weights based on what they perceived as the relative importance of the tasks' content to veterinary practice in California. A summary of the preliminary and final content area weights for the veterinarian examination outline is presented in Table 13.

TABLE 13 – CONTENT AREA WEIGHTS

CONTENT AREA	Preliminary Weights	Final Weights
1. Patient Signalment and History	12%	12%
2. Patient Physical Examination	19%	20%
3. Patient Data Assessment	8%	8%
4. Diagnostic Planning and Procedures	6%	13%
5. Diagnostic Interpretation	6%	6%
6. Treatment Planning	11%	11%
7. Treatment	13%	12%
8. Disease Prevention and Health Management	9%	5%
9. Professional and Legal Responsibilities	17%	13%
Total	101%*	100%

*NOTE: Preliminary weights may not add to 100%. SMEs adjust preliminary weights and ensure that final weights add to 100%.

The examination outline for the veterinarian profession is presented in Table 14.

TABLE 14 – EXAMINATION OUTLINE FOR THE VETERINARIAN PROFESSION

1. PATIENT SIGNALMENT AND HISTORY (12%): This area assesses the candidate's knowledge of determining signalment, chief complaint, prior health status, and historical factors pertinent to current condition.

Tasks	*Associated Knowledge Statements*
T1. Obtain patient signalment.	K1. Knowledge of problems associated with signalment. K2. Knowledge of client interviewing techniques to obtain patient history. K4. Knowledge of regional animal diseases. K11. Knowledge of normal growth and development in animals.
T2. Identify patient presenting complaints.	K2. Knowledge of client interviewing techniques to obtain patient history. K3. Knowledge of methods to extract patient information from medical records. K7. Knowledge of effects of interactions with humans and other animals on animal health. K9. Knowledge of effects of prior medical history on current health status of animals.
T3. Obtain duration, severity, and rate of progression of patient condition.	K3. Knowledge of methods to extract patient information from medical records. K5. Knowledge of ranges of normal animal behavior.
T4. Obtain patient past and current medical health history.	K3. Knowledge of methods to extract patient information from medical records. K7. Knowledge of effects of interactions with humans and other animals on animal health. K8. Knowledge of effects of management practices on animal health. K9. Knowledge of effects of prior medical history on current health status of animals. K10. Knowledge of normal attitude, eating, elimination patterns, and nutritional needs of animals. K11. Knowledge of normal growth and development in animals. K12. Knowledge of normal reproduction, performance, and production parameters in animals.
T5. Obtain patient preventive history.	K3. Knowledge of methods to extract patient information from medical records. K4. Knowledge of regional animal diseases.

1. PATIENT SIGNALMENT AND HISTORY (12%): This area assesses the candidate's knowledge of determining signalment, chief complaint, prior health status, and historical factors pertinent to current condition.

Tasks	*Associated Knowledge Statements*
T6. Obtain patient origin, travel history, and disease exposure.	K4. Knowledge of regional animal diseases. K6. Knowledge of effects of housing and environment on animal health. K7. Knowledge of effects of interactions with humans and other animals on animal health.
T7. Collect information about patient attitude, appetite, elimination, and behavior.	K5. Knowledge of ranges of normal animal behavior. K6. Knowledge of effects of housing and environment on animal health. K7. Knowledge of effects of interactions with humans and other animals on animal health. K10. Knowledge of normal attitude, eating, elimination patterns, and nutritional needs of animals.
T8. Obtain patient diet and feeding history.	K8. Knowledge of effects of management practices on animal health. K10. Knowledge of normal attitude, eating, elimination patterns, and nutritional needs of animals. K11. Knowledge of normal growth and development in animals.
T9. Obtain patient reproductive, production, or performance history.	K8. Knowledge of effects of management practices on animal health. K11. Knowledge of normal growth and development in animals. K12. Knowledge of normal reproduction, performance, and production parameters in animals.
T10. Collect information about patient housing, environment, and interactions with other animals and humans.	K6. Knowledge of effects of housing and environment on animal health. K7. Knowledge of effects of interactions with humans and other animals on animal health. K8. Knowledge of effects of management practices on animal health.
T11. Obtain information about management practices (e.g., husbandry, welfare, handling).	K6. Knowledge of effects of housing and environment on animal health. K7. Knowledge of effects of interactions with humans and other animals on animal health. K8. Knowledge of effects of management practices on animal health. K10. Knowledge of normal attitude, eating, elimination patterns, and nutritional needs of animals.

2. PATIENT PHYSICAL EXAMINATION (20%): This area assesses the candidate's knowledge of gathering data by inspection and physical examination to evaluate current health and environmental status.

Tasks	*Associated Knowledge Statements*
T12. Evaluate patient demeanor, behavior, and responsiveness.	K13. Knowledge of techniques for evaluating animal demeanor, behavior, and responsiveness. K16. Knowledge of ranges of normal physiological function in animals. K17. Knowledge of animal physical anatomy. K18. Knowledge of behavioral manifestations of disease and pain in animals. K19. Knowledge of physiological indicators of abnormal function in animals. K20. Knowledge of techniques and procedures to examine reproductive, performance, and production parameters in animals.
T13. Restrain patient to perform examination.	K13. Knowledge of techniques for evaluating animal demeanor, behavior, and responsiveness. K14. Knowledge of methods for animal handling and restraint. K15. Knowledge of techniques and procedures to examine animal organ systems.
T14. Obtain patient vital signs.	K15. Knowledge of techniques and procedures to examine animal organ systems. K16. Knowledge of ranges of normal physiological function in animals. K17. Knowledge of animal physical anatomy.
T15. Examine patient oral cavity.	K14. Knowledge of methods for animal handling and restraint. K15. Knowledge of techniques and procedures to examine animal organ systems. K17. Knowledge of animal physical anatomy. K19. Knowledge of physiological indicators of abnormal function in animals.
T16. Examine patient digestive system.	K15. Knowledge of techniques and procedures to examine animal organ systems. K16. Knowledge of ranges of normal physiological function in animals. K17. Knowledge of animal physical anatomy. K18. Knowledge of behavioral manifestations of disease and pain in animals. K19. Knowledge of physiological indicators of abnormal function in animals.
T17. Examine patient musculoskeletal system.	K15. Knowledge of techniques and procedures to examine animal organ systems. K16. Knowledge of ranges of normal physiological function in animals. K17. Knowledge of animal physical anatomy. K18. Knowledge of behavioral manifestations of disease and pain in animals. K19. Knowledge of physiological indicators of abnormal function in animals.

2. PATIENT PHYSICAL EXAMINATION (20%): This area assesses the candidate's knowledge of gathering data by inspection and physical examination to evaluate current health and environmental status.

Tasks	*Associated Knowledge Statements*
T18. Examine patient cardiovascular system.	K15. Knowledge of techniques and procedures to examine animal organ systems. K16. Knowledge of ranges of normal physiological function in animals. K17. Knowledge of animal physical anatomy. K18. Knowledge of behavioral manifestations of disease and pain in animals. K19. Knowledge of physiological indicators of abnormal function in animals.
T19. Examine patient respiratory system.	K15. Knowledge of techniques and procedures to examine animal organ systems. K16. Knowledge of ranges of normal physiological function in animals. K17. Knowledge of animal physical anatomy. K18. Knowledge of behavioral manifestations of disease and pain in animals. K19. Knowledge of physiological indicators of abnormal function in animals.
T20. Examine patient integumentary system.	K15. Knowledge of techniques and procedures to examine animal organ systems. K16. Knowledge of ranges of normal physiological function in animals. K17. Knowledge of animal physical anatomy. K18. Knowledge of behavioral manifestations of disease and pain in animals. K19. Knowledge of physiological indicators of abnormal function in animals.
T21. Examine patient nervous system.	K15. Knowledge of techniques and procedures to examine animal organ systems. K16. Knowledge of ranges of normal physiological function in animals. K17. Knowledge of animal physical anatomy. K18. Knowledge of behavioral manifestations of disease and pain in animals. K19. Knowledge of physiological indicators of abnormal function in animals.
T22. Examine patient otic system.	K13. Knowledge of techniques for evaluating animal demeanor, behavior, and responsiveness. K15. Knowledge of techniques and procedures to examine animal organ systems. K16. Knowledge of ranges of normal physiological function in animals. K17. Knowledge of animal physical anatomy. K18. Knowledge of behavioral manifestations of disease and pain in animals. K19. Knowledge of physiological indicators of abnormal function in animals.

2. PATIENT PHYSICAL EXAMINATION (20%): This area assesses the candidate's knowledge of gathering data by inspection and physical examination to evaluate current health and environmental status.

Tasks	*Associated Knowledge Statements*
T23. Examine patient ophthalmic system.	K15. Knowledge of techniques and procedures to examine animal organ systems. K16. Knowledge of ranges of normal physiological function in animals. K17. Knowledge of animal physical anatomy. K18. Knowledge of behavioral manifestations of disease and pain in animals. K19. Knowledge of physiological indicators of abnormal function in animals.
T24. Examine patient urogenital system.	K15. Knowledge of techniques and procedures to examine animal organ systems. K16. Knowledge of ranges of normal physiological function in animals. K17. Knowledge of animal physical anatomy. K18. Knowledge of behavioral manifestations of disease and pain in animals. K19. Knowledge of physiological indicators of abnormal function in animals. K20. Knowledge of techniques and procedures to examine reproductive, performance, and production parameters in animals.
T25. Examine patient lymphatic system.	K15. Knowledge of techniques and procedures to examine animal organ systems. K16. Knowledge of ranges of normal physiological function in animals. K17. Knowledge of animal physical anatomy. K18. Knowledge of behavioral manifestations of disease and pain in animals. K19. Knowledge of physiological indicators of abnormal function in animals.
T26. Determine patient body condition score.	K21. Knowledge of body conditioning scoring system for animals.
T27. Evaluate patient performance and production.	K20. Knowledge of techniques and procedures to examine reproductive, performance, and production parameters in animals. K21. Knowledge of body conditioning scoring system for animals.

3. PATIENT DATA ASSESSMENT (8%): This area assesses the candidate's knowledge of determining clinical status, forming differential diagnoses, identifying health risks to animal and human populations, and determining presence of abuse or neglect.

Tasks	*Associated Knowledge Statements*
T28. Evaluate patient data to determine whether additional information is needed.	K22. Knowledge of triage methods. K24. Knowledge of methods to develop medical problem lists. K25. Knowledge of methods to prioritize medical problem lists. K26. Knowledge of differential diagnoses for problems. K29. Knowledge of effects of nutrition on animal health.
T29. Identify patient conditions that require emergency management.	K22. Knowledge of triage methods. K23. Knowledge of indications for euthanasia or slaughter. K24. Knowledge of methods to develop medical problem lists. K29. Knowledge of effects of nutrition on animal health. K31. Knowledge of public health risks related to animal diseases. K32. Knowledge of risk factors for disease transmission.
T30. Develop problem list based on patient history and physical examination.	K24. Knowledge of methods to develop medical problem lists. K26. Knowledge of differential diagnoses for problems. K28. Knowledge of effects of environment on animal health. K30. Knowledge of effects of population dynamics on animal health. K34. Knowledge of infectious diseases.
T31. Develop list of differential diagnoses for identified problems.	K24. Knowledge of methods to develop medical problem lists. K26. Knowledge of differential diagnoses for problems. K31. Knowledge of public health risks related to animal diseases. K32. Knowledge of risk factors for disease transmission. K33. Knowledge of impact of animal husbandry practices on disease. K34. Knowledge of infectious diseases.
T32. Determine public health risks related to animal disease.	K23. Knowledge of indications for euthanasia or slaughter. K25. Knowledge of methods to prioritize medical problem lists. K28. Knowledge of effects of environment on animal health. K30. Knowledge of effects of population dynamics on animal health. K31. Knowledge of public health risks related to animal diseases. K33. Knowledge of impact of animal husbandry practices on disease.

3. PATIENT DATA ASSESSMENT (8%): This area assesses the candidate's knowledge of determining clinical status, forming differential diagnoses, identifying health risks to animal and human populations, and determining presence of abuse or neglect.

Tasks	*Associated Knowledge Statements*
T33. Identify animal and population health risks (e.g., genetic, nutritional, environmental).	K28. Knowledge of effects of environment on animal health. K29. Knowledge of effects of nutrition on animal health. K30. Knowledge of effects of population dynamics on animal health. K31. Knowledge of public health risks related to animal diseases. K32. Knowledge of risk factors for disease transmission. K33. Knowledge of impact of animal husbandry practices on disease. K34. Knowledge of infectious diseases.
T34. Identify factors that may indicate animal abuse or neglect.	K23. Knowledge of indications for euthanasia or slaughter. K27. Knowledge of signs of potential animal abuse and neglect. K33. Knowledge of impact of animal husbandry practices on disease.

4. DIAGNOSTIC PLANNING AND PROCEDURES (13%): This area assesses the candidate's knowledge of determining diagnostic plans, and performing or ordering tests and procedures to establish diagnoses.

Tasks	*Associated Knowledge Statements*
T35. Identify risks, benefits, and limitations of diagnostic procedures.	K35. Knowledge of risks, benefits, and limitations associated with diagnostic procedures.
T36. Formulate diagnostic plans to revise differential diagnoses lists.	K35. Knowledge of risks, benefits, and limitations associated with diagnostic procedures. K36. Knowledge of methods to formulate diagnostic plans.
T37. Collect and submit samples for laboratory diagnostic tests.	K37. Knowledge of methods and procedures for laboratory sample collection and submission. K39. Knowledge of methods and procedures to perform necropsies. K41. Knowledge of storage and handling of diagnostic samples.
T38. Perform necropsy.	K36. Knowledge of methods to formulate diagnostic plans. K37. Knowledge of methods and procedures for laboratory sample collection and submission. K39. Knowledge of methods and procedures to perform necropsies. K41. Knowledge of storage and handling of diagnostic samples.
T39. Analyze patient diets and food.	K37. Knowledge of methods and procedures for laboratory sample collection and submission. K40. Knowledge of methods to evaluate animal diets and food. K41. Knowledge of storage and handling of diagnostic samples.
T40. Perform diagnostic procedures on patients.	K37. Knowledge of methods and procedures for laboratory sample collection and submission. K38. Knowledge of methods to perform diagnostic procedures on animals. K39. Knowledge of methods and procedures to perform necropsies. K40. Knowledge of methods to evaluate animal diets and food. K41. Knowledge of storage and handling of diagnostic samples.

5. DIAGNOSTIC INTERPRETATION (6%): This area assesses the candidate's knowledge of evaluating the results of tests and procedures to establish patient diagnoses and prognoses.

Tasks	*Associated Knowledge Statements*
T41. Interpret patient diagnostic results.	K43. Knowledge of methods to interpret diagnostic tests and procedures. K44. Knowledge of methods to formulate working or final diagnoses for animals. K45. Knowledge of animal disease processes. K46. Knowledge of methods to assess patient prognoses. K47. Knowledge of techniques to communicate diagnostic findings and prognoses.
T42. Analyze epidemiological data.	K42. Knowledge of statistical testing and analysis for evaluating diagnostic and epidemiological data. K43. Knowledge of methods to interpret diagnostic tests and procedures. K45. Knowledge of animal disease processes.
T43. Formulate working or final diagnoses for patients.	K43. Knowledge of methods to interpret diagnostic tests and procedures. K44. Knowledge of methods to formulate working or final diagnoses for animals. K45. Knowledge of animal disease processes.
T44. Determine patient prognoses.	K44. Knowledge of methods to formulate working or final diagnoses for animals. K45. Knowledge of animal disease processes. K46. Knowledge of methods to assess patient prognoses. K47. Knowledge of techniques to communicate diagnostic findings and prognoses.
T45. Communicate patient diagnostic findings and prognoses.	K43. Knowledge of methods to interpret diagnostic tests and procedures. K46. Knowledge of methods to assess patient prognoses. K47. Knowledge of techniques to communicate diagnostic findings and prognoses.

6. TREATMENT PLANNING (11%): This area assesses the candidate's knowledge of formulating treatment plans based on diagnostics and communicating treatment options to client.

Tasks	*Associated Knowledge Statements*
T46. Identify risks and benefits of treatment options.	K48. Knowledge of effects of treatment options on patients. K49. Knowledge of effects of treatment options on public health and environment. K54. Knowledge of infectious, contagious, and zoonotic diseases.
T47. Prioritize treatment options and management of presenting problems.	K48. Knowledge of effects of treatment options on patients. K59. Knowledge of techniques to convey treatment options to clients. K61. Knowledge of indications for euthanasia or slaughter.
T48. Formulate treatment plans.	K48. Knowledge of effects of treatment options on patients. K52. Knowledge of conditions that may require referral or consultation. K59. Knowledge of techniques to convey treatment options to clients. K60. Knowledge of interactions, contraindications, and adverse effects of prescribed treatments. K61. Knowledge of indications for euthanasia or slaughter.
T49. Formulate anesthetic and analgesic plans.	K56. Knowledge of anesthetic and analgesic protocols. K57. Knowledge of animal physical therapy and rehabilitation methods. K60. Knowledge of interactions, contraindications, and adverse effects of prescribed treatments. K61. Knowledge of indications for euthanasia or slaughter.
T50. Formulate behavior modification plans.	K48. Knowledge of effects of treatment options on patients. K51. Knowledge of methods to prioritize treatment and management options. K52. Knowledge of conditions that may require referral or consultation. K58. Knowledge of animal behavior modification methods. K61. Knowledge of indications for euthanasia or slaughter.
T51. Formulate physical therapy and rehabilitation plans.	K52. Knowledge of conditions that may require referral or consultation. K57. Knowledge of animal physical therapy and rehabilitation methods. K59. Knowledge of techniques to convey treatment options to clients. K61. Knowledge of indications for euthanasia or slaughter.
T52. Formulate contagion control plans.	K49. Knowledge of effects of treatment options on public health and environment. K51. Knowledge of methods to prioritize treatment and management options. K55. Knowledge of methods to control spread of disease.
T53. Communicate treatment options to clients.	K48. Knowledge of effects of treatment options on patients. K50. Knowledge of client-related factors that may affect treatment selection. K59. Knowledge of techniques to convey treatment options to clients. K61. Knowledge of indications for euthanasia or slaughter.

6. TREATMENT PLANNING (11%): This area assesses the candidate's knowledge of formulating treatment plans based on diagnostics and communicating treatment options to client.

Tasks	*Associated Knowledge Statements*
T54. Identify indications for referral or consultation.	K52. Knowledge of conditions that may require referral or consultation. K53. Knowledge of treatment options based on diagnosis. K57. Knowledge of animal physical therapy and rehabilitation methods.
T55. Identify indications for humane euthanasia or slaughter.	K51. Knowledge of methods to prioritize treatment and management options. K54. Knowledge of infectious, contagious, and zoonotic diseases. K55. Knowledge of methods to control spread of disease. K61. Knowledge of indications for euthanasia or slaughter.

7. TREATMENT (12%): This area assesses the candidate's knowledge of administering medical, surgical, and therapeutic procedures indicated by the treatment plan.

Tasks	*Associated Knowledge Statements*
T56. Prescribe medical treatment for patients.	K63. Knowledge of methods and procedures for anesthesia and analgesia for animals. K64. Knowledge of methods and procedures for behavior modification in animals. K71. Knowledge of indications to modify treatment plans. K72. Knowledge of treatment complications. K75. Knowledge of evaluation of patient response to treatment.
T57. Implement medical treatment for patients.	K62. Knowledge of emergency and critical care treatment interventions. K67. Knowledge of methods and procedures for medical treatment of animals. K71. Knowledge of indications to modify treatment plans. K72. Knowledge of treatment complications.
T58. Administer and monitor anesthesia and analgesia.	K63. Knowledge of methods and procedures for anesthesia and analgesia for animals. K65. Knowledge of methods and procedures for surgical treatment of animals. K67. Knowledge of methods and procedures for medical treatment of animals. K72. Knowledge of treatment complications. K75. Knowledge of evaluation of patient response to treatment.
T59. Perform surgical procedures on patients.	K62. Knowledge of emergency and critical care treatment interventions. K63. Knowledge of methods and procedures for anesthesia and analgesia for animals. K65. Knowledge of methods and procedures for surgical treatment of animals. K76. Knowledge of techniques to communicate patient treatment response and follow-up care to clients.
T60. Perform dental procedures on patients.	K63. Knowledge of methods and procedures for anesthesia and analgesia for animals. K66. Knowledge of methods and procedures for dental treatment of animals. K75. Knowledge of evaluation of patient response to treatment.
T61. Apply external therapeutic devices (e.g., bandages, splints, or E-collar) to patients.	K62. Knowledge of emergency and critical care treatment interventions. K63. Knowledge of methods and procedures for anesthesia and analgesia for animals. K68. Knowledge of methods and procedures for applying external therapeutic devices. K72. Knowledge of treatment complications.

7. TREATMENT (12%): This area assesses the candidate's knowledge of administering medical, surgical, and therapeutic procedures indicated by the treatment plan.

Tasks	*Associated Knowledge Statements*
T62. Perform physical therapy and rehabilitation on patients.	K70. Knowledge of methods and procedures for physical therapy and rehabilitation of animals. K71. Knowledge of indications to modify treatment plans. K75. Knowledge of evaluation of patient response to treatment.
T63. Perform emergency and critical care procedures on patients.	K62. Knowledge of emergency and critical care treatment interventions. K63. Knowledge of methods and procedures for anesthesia and analgesia for animals. K75. Knowledge of evaluation of patient response to treatment.
T64. Evaluate patient responses to treatments.	K64. Knowledge of methods and procedures for behavior modification in animals. K69. Knowledge of methods and procedures for euthanasia. K71. Knowledge of indications to modify treatment plans. K75. Knowledge of evaluation of patient response to treatment.
T65. Determine need for modification of patient treatment plans.	K69. Knowledge of methods and procedures for euthanasia. K71. Knowledge of indications to modify treatment plans. K72. Knowledge of treatment complications. K75. Knowledge of evaluation of patient response to treatment. K76. Knowledge of techniques to communicate patient treatment response and follow-up care to clients.
T66. Perform humane euthanasia.	K68. Knowledge of methods and procedures for applying external therapeutic devices. K69. Knowledge of methods and procedures for euthanasia. K71. Knowledge of indications to modify treatment plans. K72. Knowledge of treatment complications. K74. Knowledge of therapeutic nutritional management for animals.
T67. Communicate patient treatment responses and follow-up care to clients.	K69. Knowledge of methods and procedures for euthanasia. K72. Knowledge of treatment complications. K75. Knowledge of evaluation of patient response to treatment. K76. Knowledge of techniques to communicate patient treatment response and follow-up care to clients.

8. DISEASE PREVENTION AND HEALTH MANAGEMENT (5%): This area assesses the candidate's knowledge of developing preventative plans and programs to promote animal health and public safety.

Tasks	*Associated Knowledge Statements*
T68. Develop nutritional plans for patients.	K77. Knowledge of nutritional management in animals. K80. Knowledge of methods for parasite control in animals. K88. Knowledge of animal husbandry. K89. Knowledge of weight management methods for animals.
T69. Develop environmental plans for patients.	K78. Knowledge of environmental management for animal disease prevention. K79. Knowledge of methods to prevent transmission of communicable diseases in animals. K88. Knowledge of animal husbandry.
T70. Develop plans to prevent or control infectious diseases.	K78. Knowledge of environmental management for animal disease prevention. K79. Knowledge of methods to prevent transmission of communicable diseases in animals. K80. Knowledge of methods for parasite control in animals. K86. Knowledge of methods and protocols to control, prevent, or eradicate infectious diseases in animals. K87. Knowledge of personal protective equipment and decontamination protocols. K88. Knowledge of animal husbandry.
T71. Develop plans to control parasites in patients.	K78. Knowledge of environmental management for animal disease prevention. K79. Knowledge of methods to prevent transmission of communicable diseases in animals. K80. Knowledge of methods for parasite control in animals. K88. Knowledge of animal husbandry.
T72. Develop plans to improve patient physical conditioning.	K80. Knowledge of methods for parasite control in animals. K81. Knowledge of physical conditioning to prevent injury and disease in animals. K82. Knowledge of physical rehabilitation methods for animals. K88. Knowledge of animal husbandry. K90. Knowledge of pain management methods for animals.
T73. Develop physical rehabilitation plans for patients.	K77. Knowledge of nutritional management in animals. K81. Knowledge of physical conditioning to prevent injury and disease in animals. K82. Knowledge of physical rehabilitation methods for animals. K84. Knowledge of principles of animal population management. K90. Knowledge of pain management methods for animals.

8. DISEASE PREVENTION AND HEALTH MANAGEMENT (5%): This area assesses the candidate's knowledge of developing preventative plans and programs to promote animal health and public safety.

Tasks	*Associated Knowledge Statements*
T74. Develop plans to improve patient dental health.	K77. Knowledge of nutritional management in animals. K83. Knowledge of methods of preventive dental care. K88. Knowledge of animal husbandry.
T75. Develop population management plans.	K84. Knowledge of principles of animal population management. K85. Knowledge of methods for reproduction, performance, and reproduction management in animals. K88. Knowledge of animal husbandry.
T76. Develop reproductive, performance, or production health plans for patients.	K79. Knowledge of methods to prevent transmission of communicable diseases in animals. K85. Knowledge of methods for reproduction, performance, and reproduction management in animals. K86. Knowledge of methods and protocols to control, prevent, or eradicate infectious diseases in animals. K88. Knowledge of animal husbandry.
T77. Develop biosecurity plans.	K79. Knowledge of methods to prevent transmission of communicable diseases in animals. K84. Knowledge of principles of animal population management. K86. Knowledge of methods and protocols to control, prevent, or eradicate infectious diseases in animals. K87. Knowledge of personal protective equipment and decontamination protocols. K88. Knowledge of animal husbandry.
T78. Develop pain management plans for patients.	K81. Knowledge of physical conditioning to prevent injury and disease in animals. K82. Knowledge of physical rehabilitation methods for animals. K88. Knowledge of animal husbandry. K90. Knowledge of pain management methods for animals. K91. Knowledge of techniques to communicate patient preventive and management recommendations to clients.

8. DISEASE PREVENTION AND HEALTH MANAGEMENT (5%): This area assesses the candidate's knowledge of developing preventative plans and programs to promote animal health and public safety.

Tasks	*Associated Knowledge Statements*
T79. Develop weight management plans for patients.	K77. Knowledge of nutritional management in animals. K82. Knowledge of physical rehabilitation methods for animals. K88. Knowledge of animal husbandry. K89. Knowledge of weight management methods for animals.
T80. Communicate patient preventive and management recommendations to clients.	K78. Knowledge of environmental management for animal disease prevention. K84. Knowledge of principles of animal population management. K88. Knowledge of animal husbandry. K91. Knowledge of techniques to communicate patient preventive and management recommendations to clients.

9. PROFESSIONAL AND LEGAL RESPONSIBILITIES (13%): This area assesses the candidate's knowledge of compliance with state and federal laws and regulations, including veterinary practice standards, reportable diseases, animal movement, and disaster response.

Tasks	*Associated Knowledge Statements*
T81. Prescribe, dispense, administer, and dispose of medications and treatments in accordance with laws and regulations.	K92. Knowledge of legal requirements related to medication prescriptions. K93. Knowledge of legal requirements related to administration of medications to patients. K94. Knowledge of legal requirements related to judicious use of antibiotics. K95. Knowledge of legal requirements related to drug consultation. K96. Knowledge of legal requirements and guidelines related to veterinary use of cannabis. K97. Knowledge of legal requirements related to disposal of medications. K99. Knowledge of legal requirements related to prescribing, dispensing, administration, and disposal of controlled substances. K109. Knowledge of legal requirements related to minimum standards of veterinary practice. K111. Knowledge of legal standards for establishing and maintaining a veterinary-client-patient relationship. K114. Knowledge of legal responsibilities to prevent drug residues in food chain. K115. Knowledge of laws and regulations regarding restrictions of performance-enhancing drugs.
T82. Maintain awareness of potential agro- and bio-terrorism agents.	K97. Knowledge of legal requirements related to disposal of medications. K98. Knowledge of potential agents of agro- and bio-terrorism. K105. Knowledge of legal requirements related to reportable diseases.
T83. Prescribe, dispense, administer, and dispose of controlled substances in accordance with laws and regulations.	K92. Knowledge of legal requirements related to medication prescriptions. K93. Knowledge of legal requirements related to administration of medications to patients. K96. Knowledge of legal requirements and guidelines related to veterinary use of cannabis. K99. Knowledge of legal requirements related to prescribing, dispensing, administration, and disposal of controlled substances. K109. Knowledge of legal requirements related to minimum standards of veterinary practice. K111. Knowledge of legal standards for establishing and maintaining a veterinary-client-patient relationship. K114. Knowledge of legal responsibilities to prevent drug residues in food chain.

9. PROFESSIONAL AND LEGAL RESPONSIBILITIES (13%): This area assesses the candidate's knowledge of compliance with state and federal laws and regulations, including veterinary practice standards, reportable diseases, animal movement, and disaster response.

Tasks	*Associated Knowledge Statements*
T84. Handle, store, and dispose of biohazardous waste in accordance with laws and regulations.	K95. Knowledge of legal requirements related to drug consultation. K98. Knowledge of potential agents of agro- and bio-terrorism. K100. Knowledge of legal requirements related to handling, storage, and disposal of biohazardous waste. K109. Knowledge of legal requirements related to minimum standards of veterinary practice.
T85. Complete documents required for movement of animals.	K101. Knowledge of legal requirements related to movement of live animals. K103. Knowledge of legal requirements related to veterinary record keeping. K111. Knowledge of legal standards for establishing and maintaining a veterinary-client-patient relationship.
T86. Handle radioactive materials and radiographic equipment in accordance with laws and regulations.	K100. Knowledge of legal requirements related to handling, storage, and disposal of biohazardous waste. K102. Knowledge of legal requirements related to radiation safety.
T87. Maintain complete patient medical records in accordance with laws and regulations.	K103. Knowledge of legal requirements related to veterinary record keeping. K109. Knowledge of legal requirements related to minimum standards of veterinary practice. K111. Knowledge of legal standards for establishing and maintaining a veterinary-client-patient relationship. K117. Knowledge of legal and professional standards related to documentation of veterinary care.
T88. Manage abandoned animal cases.	K101. Knowledge of legal requirements related to movement of live animals. K104. Knowledge of legal requirements related to abandonment of animals. K106. Knowledge of legal requirements related to reporting suspected animal abuse or neglect. K109. Knowledge of legal requirements related to minimum standards of veterinary practice.
T89. Report diseases in accordance with laws and regulations.	K105. Knowledge of legal requirements related to reportable diseases. K111. Knowledge of legal standards for establishing and maintaining a veterinary-client-patient relationship. K112. Knowledge of legal requirements related to confidentiality of patient and client information. K114. Knowledge of legal responsibilities to prevent drug residues in food chain.

9. PROFESSIONAL AND LEGAL RESPONSIBILITIES (13%): This area assesses the candidate's knowledge of compliance with state and federal laws and regulations, including veterinary practice standards, reportable diseases, animal movement, and disaster response.

Tasks	*Associated Knowledge Statements*
T90. Report cases of suspected animal abuse and neglect as mandated by law.	K104. Knowledge of legal requirements related to abandonment of animals. K106. Knowledge of legal requirements related to reporting suspected animal abuse or neglect. K112. Knowledge of legal requirements related to confidentiality of patient and client information.
T91. Supervise registered veterinary technicians and unregistered assistants in accordance with Veterinary Medical Board regulations.	K107. Knowledge of legal requirements related to supervision of registered veterinary technicians and unregistered assistants. K108. Knowledge of legal requirements related to scope of practice of registered veterinary technicians and unregistered assistants.
T92. Manage practice in accordance with laws and regulations related to minimum standards of care.	K109. Knowledge of legal requirements related to minimum standards of veterinary practice. K117. Knowledge of legal and professional standards related to documentation of veterinary care.
T93. Maintain veterinary premises in accordance with legal requirements.	K109. Knowledge of legal requirements related to minimum standards of veterinary practice. K110. Knowledge of legal requirements related to standards for veterinary premises.
T94. Establish and maintain veterinary-client-patient relationships as required by laws and regulations.	K109. Knowledge of legal requirements related to minimum standards of veterinary practice. K111. Knowledge of legal standards for establishing and maintaining a veterinary-client-patient relationship. K112. Knowledge of legal requirements related to confidentiality of patient and client information. K117. Knowledge of legal and professional standards related to documentation of veterinary care.
T95. Disclose information about patients or clients in accordance with laws and regulations.	K111. Knowledge of legal standards for establishing and maintaining a veterinary-client-patient relationship. K112. Knowledge of legal requirements related to confidentiality of patient and client information. K113. Knowledge of legal requirements related to informed consent.

9. PROFESSIONAL AND LEGAL RESPONSIBILITIES (13%): This area assesses the candidate's knowledge of compliance with state and federal laws and regulations, including veterinary practice standards, reportable diseases, animal movement, and disaster response.

Tasks	*Associated Knowledge Statements*
T96. Obtain informed consent for diagnostic testing and treatment.	K111. Knowledge of legal standards for establishing and maintaining a veterinary-client-patient relationship. K112. Knowledge of legal requirements related to confidentiality of patient and client information. K113. Knowledge of legal requirements related to informed consent.
T97. Manage drug prescriptions for production or performance animals in accordance with laws and regulations.	K92. Knowledge of legal requirements related to medication prescriptions. K93. Knowledge of legal requirements related to administration of medications to patients. K109. Knowledge of legal requirements related to minimum standards of veterinary practice. K114. Knowledge of legal responsibilities to prevent drug residues in food chain. K115. Knowledge of laws and regulations regarding restrictions of performance-enhancing drugs.
T98. Manage patients with rabies in accordance with laws and regulations.	K105. Knowledge of legal requirements related to reportable diseases. K109. Knowledge of legal requirements related to minimum standards of veterinary practice. K116. Knowledge of laws and regulations related to rabies control. K117. Knowledge of legal and professional standards related to documentation of veterinary care.
T99. Document provision of care in accordance with legal and professional standards.	K109. Knowledge of legal requirements related to minimum standards of veterinary practice. K117. Knowledge of legal and professional standards related to documentation of veterinary care.

CHAPTER 6 | CONCLUSION

The OA of the veterinarian profession described in this report provides a comprehensive description of current practice in California. The procedures employed to perform the OA were based upon a content validation strategy to ensure that the results accurately represent veterinary medical practice. Results of this OA provide information regarding current practice that can be used to review the NAVLE and to develop the CSB and the VLE.

By adopting the veterinary examination outline contained in this report, the Board ensures that its veterinarian licensure examination program reflects current practice.

This report provides all documentation necessary to verify that the analysis has been completed in accordance with legal, professional, and technical standards.

APPENDIX A | RESPONDENTS BY REGION

LOS ANGELES COUNTY AND VICINITY

County of Practice	Frequency
Los Angeles	39
Orange	23
TOTAL	62

NORTH COAST

County of Practice	Frequency
Humboldt	2
Sonoma	9
TOTAL	11

RIVERSIDE AND VICINITY

County of Practice	Frequency
Riverside	9
San Bernardino	8
TOTAL	17

SACRAMENTO VALLEY

County of Practice	Frequency
Butte	4
Sacramento	9
Yolo	5
Yuba	1
TOTAL	19

SAN DIEGO COUNTY AND VICINITY

County of Practice	Frequency
San Diego	23
TOTAL	23

SAN FRANCISCO BAY AREA

County of Practice	Frequency
Alameda	13
Contra Costa	9
Marin	3
Napa	1
San Francisco	5
San Mateo	6
Santa Clara	11
Santa Cruz	4
TOTAL	52

SAN JOAQUIN VALLEY

County of Practice	Frequency
Fresno	5
Kern	2
Kings	1
Madera	1
San Joaquin	5
Stanislaus	6
Tulare	4
TOTAL	24

SHASTA - CASCADE

County of Practice	Frequency
Shasta	4
TOTAL	4

SIERRA MOUNTAIN VALLEY

County of Practice	Frequency
Amador	1
El Dorado	2
Inyo	1
Placer	4
Tuolumne	1
TOTAL	9

SOUTH COAST AND CENTRAL COAST

County of Practice	Frequency
Monterey	1
San Luis Obispo	4
Santa Barbara	4
Ventura	5
TOTAL	14

APPENDIX B | CRITICALITY INDICES FOR ALL TASKS BY CONTENT AREA

Content Area 1
Patient Signalment and History

Task Number	Task Statement	Mean Importance	Mean Frequency	Task Criticality Index
2	Identify patient presenting complaints.	4.6017	4.6282	21.73
1	Obtain patient signalment.	4.6102	4.5171	21.10
3	Obtain duration, severity, and rate of progression of patient condition.	4.3983	4.4298	20.22
7	Collect information about patient attitude, appetite, elimination, and behavior.	4.4110	4.2426	19.33
4	Obtain patient past and current medical health history.	4.1489	4.1159	17.76
8	Obtain patient diet and feeding history.	3.8128	3.5171	14.31
5	Obtain patient preventive history.	3.7161	3.4638	13.82
10	Collect information about patient housing, environment, and interactions with other animals and humans.	3.5678	3.3234	12.87
6	Obtain patient origin, travel history, and disease exposure.	3.3051	3.3872	12.16
11	Obtain information about management practices (e.g., husbandry, welfare, handling).	2.8263	2.7253	9.59
9	Obtain patient reproductive, production, or performance history.	2.6907	2.7106	8.71

Content Area 2
Patient Physical Examination

Task Number	Task Statement	Mean Importance	Mean Frequency	Task Criticality Index
14	Obtain patient vital signs.	4.5000	4.4298	20.48
18	Examine patient cardiovascular system.	4.4661	4.3590	20.16
12	Evaluate patient demeanor, behavior, and responsiveness.	4.5149	4.3219	19.96
19	Examine patient respiratory system.	4.4746	4.3191	19.95
26	Determine patient body condition score.	4.4788	3.7617	17.30
15	Examine patient oral cavity.	4.1610	3.8723	16.91
20	Examine patient integumentary system.	4.3136	3.7277	16.84
17	Examine patient musculoskeletal system.	4.1907	3.8426	16.82
16	Examine patient digestive system.	4.1017	3.8723	16.77
25	Examine patient lymphatic system.	3.8468	3.6078	15.22
13	Restrain patient to perform examination.	3.7542	3.7660	15.15
21	Examine patient nervous system.	3.7627	3.7149	14.84
24	Examine patient urogenital system.	3.7288	3.6000	14.41
23	Examine patient ophthalmic system.	3.6864	3.5000	14.01
22	Examine patient otic system.	3.7331	3.3872	13.88
27	Evaluate patient performance and production.	1.9532	1.8405	6.09

Content Area 3
Patient Data Assessment

Task Number	Task Statement	Mean Importance	Mean Frequency	Task Criticality Index
30	Develop problem list based on patient history and physical examination.	4.3178	4.1617	18.89
29	Identify patient conditions that require emergency management.	3.9492	4.6553	18.83
31	Develop list of differential diagnoses for identified problems.	4.2881	4.1277	18.50
28	Evaluate patient data to determine whether additional information is needed.	4.0932	3.8761	16.91
32	Determine public health risks related to animal disease.	3.0932	3.8205	12.71
33	Identify animal and population health risks (e.g., genetic, nutritional, environmental).	2.8093	3.1202	10.31
34	Identify factors that may indicate animal abuse or neglect.	2.3051	3.8000	9.33

Content Area 4
Diagnostic Planning and Procedures

Task Number	Task Statement	Mean Importance	Mean Frequency	Task Criticality Index
40	Perform diagnostic procedures on patients.	4.2298	4.2704	19.16
37	Collect and submit samples for laboratory diagnostic tests.	4.1737	4.2511	18.58
36	Formulate diagnostic plans to revise differential diagnoses lists.	4.1059	4.0726	17.83
35	Identify risks, benefits, and limitations of diagnostic procedures.	4.0466	3.9191	16.78
39	Analyze patient diets and food.	2.7458	2.9661	9.28
38	Perform necropsy.	1.2458	2.4043	3.82

Content Area 5
Diagnostic Interpretation

Task Number	Task Statement	Mean Importance	Mean Frequency	Task Criticality Index
45	Communicate patient diagnostic findings and prognoses.	4.5551	4.5319	21.31
41	Interpret patient diagnostic results.	4.5339	4.5322	21.11
43	Formulate working or final diagnoses for patients.	4.3051	4.2426	19.07
44	Determine patient prognoses.	4.1907	4.0424	17.68
42	Analyze epidemiological data.	1.4407	2.0213	4.61

Content Area 6
Treatment Planning

Task Number	Task Statement	Mean Importance	Mean Frequency	Task Criticality Index
48	Formulate treatment plans.	4.4534	4.3915	20.28
53	Communicate treatment options to clients.	4.3602	4.2585	19.91
49	Formulate anesthetic and analgesic plans.	4.0254	4.2553	18.21
47	Prioritize treatment options and management of presenting problems.	4.2128	4.1068	18.19
46	Identify risks and benefits of treatment options.	4.1702	4.1667	18.18
55	Identify indications for humane euthanasia or slaughter.	3.8008	4.0932	16.57
54	Identify indications for referral or consultation.	3.7415	3.9407	15.83
50	Formulate behavior modification plans.	2.3051	2.8220	7.71
52	Formulate contagion control plans.	1.8766	3.1760	7.55
51	Formulate physical therapy and rehabilitation plans.	1.7702	2.5532	5.89

Content Area 7
Treatment

Task Number	Task Statement	Mean Importance	Mean Frequency	Task Criticality Index
56	Prescribe medical treatment for patients.	4.4681	4.3547	20.23
57	Implement medical treatment for patients.	4.3362	4.2521	19.43
64	Evaluate patient responses to treatments.	4.2821	4.2650	18.94
67	Communicate patient treatment responses and follow-up care to clients.	4.0553	4.1288	18.02
65	Determine need for modification of patient treatment plans.	3.9574	4.1404	17.18
59	Perform surgical procedures on patients.	3.5149	4.1239	15.94
66	Perform humane euthanasia.	3.4170	4.0812	14.71
58	Administer and monitor anesthesia and analgesia.	2.9234	4.3991	13.76
63	Perform emergency and critical care procedures on patients.	2.8085	4.3219	13.20
61	Apply external therapeutic devices (e.g., bandages, splints, or E-collar) to patients.	3.1660	3.5812	12.46
60	Perform dental procedures on patients.	2.9191	3.3846	12.43
62	Perform physical therapy and rehabilitation on patients.	1.2000	2.2414	4.00

Content Area 8
Disease Prevention and Health Management

Task Number	Task Statement	Mean Importance	Mean Frequency	Task Criticality Index
78	Develop pain management plans for patients.	4.0805	4.2340	18.10
80	Communicate patient preventive and management recommendations to clients.	3.8504	3.8155	15.94
71	Develop plans to control parasites in patients.	3.4746	3.5812	13.67
79	Develop weight management plans for patients.	3.27660	3.4829	12.57
74	Develop plans to improve patient dental health.	3.1186	3.3051	12.30
70	Develop plans to prevent or control infectious diseases.	2.5551	3.4786	10.42
68	Develop nutritional plans for patients.	2.3644	3.1356	8.37
72	Develop plans to improve patient physical conditioning.	2.3686	2.8291	8.25
69	Develop environmental plans for patients.	1.9280	2.5593	6.31
73	Develop physical rehabilitation plans for patients.	1.3771	2.3191	4.60
77	Develop biosecurity plans.	1.0042	1.9828	4.19
75	Develop population management plans.	1.0593	1.5837	3.80
76	Develop reproductive, performance, or production health plans for patients.	.9915	1.4979	3.35

Content Area 9
Professional and Legal Responsibilities

Task Number	Task Statement	Mean Importance	Mean Frequency	Task Criticality Index
87	Maintain complete patient medical records in accordance with laws and regulations.	4.7064	4.4592	21.35
81	Prescribe, dispense, administer, and dispose of medications and treatments in accordance with laws and regulations.	4.4043	4.4095	19.97
94	Establish and maintain veterinary-client-patient relationships as required by laws and regulations.	4.4576	4.1931	19.56
96	Obtain informed consent for diagnostic testing and treatment.	4.2596	4.1552	18.90
91	Supervise registered veterinary technicians and unregistered assistants in accordance with Veterinary Medical Board regulations.	4.1822	3.9870	18.20
83	Prescribe, dispense, administer, and dispose of controlled substances in accordance with laws and regulations.	3.9110	4.2672	17.61
99	Document provision of care in accordance with legal and professional standards.	3.9280	4.0173	16.90
92	Manage practice in accordance with laws and regulations related to minimum standards of care.	3.6737	3.6983	16.23
84	Handle, store, and dispose of biohazardous waste in accordance with laws and regulations.	3.7669	3.8927	15.94
93	Maintain veterinary premises in accordance with legal requirements.	3.1277	3.2575	13.32
95	Disclose information about patients or clients in accordance with laws and regulations.	3.1610	3.6164	12.71
86	Handle radioactive materials and radiographic equipment in accordance with laws and regulations.	2.4534	3.0517	10.72
85	Complete documents required for movement of animals.	2.2881	2.8190	8.38
97	Manage drug prescriptions for production or performance animals in accordance with laws and regulations.	1.4661	1.9267	6.37
98	Manage patients with rabies in accordance with laws and regulations.	1.2458	3.5560	5.80
89	Report diseases in accordance with laws and regulations.	1.3660	3.5991	5.78
90	Report cases of suspected animal abuse and neglect as mandated by law.	1.2966	3.7253	5.38
88	Manage abandoned animal cases.	1.2712	2.3534	4.33
82	Maintain awareness of potential agro- and bio-terrorism agents.	1.1624	1.9783	4.29

APPENDIX C | KNOWLEDGE IMPORTANCE RATINGS

Content Area 1
Patient Signalment and History

Number	Knowledge Statement	Mean Importance
10	Knowledge of normal attitude, eating, elimination patterns, and nutritional needs of animals.	3.2246
1	Knowledge of problems associated with signalment.	3.1271
5	Knowledge of ranges of normal animal behavior.	2.9319
2	Knowledge of client interviewing techniques to obtain patient history.	2.9280
9	Knowledge of effects of prior medical history on current health status of animals.	2.9106
11	Knowledge of normal growth and development in animals.	2.8851
3	Knowledge of methods to extract patient information from medical records.	2.6949
4	Knowledge of regional animal diseases.	2.6638
6	Knowledge of effects of housing and environment on animal health.	2.5297
7	Knowledge of effects of interactions with humans and other animals on animal health.	2.3702
8	Knowledge of effects of management practices on animal health.	2.0593
12	Knowledge of normal reproduction, performance, and production parameters in animals.	1.6017

Content Area 2
Patient Physical Examination

Number	Knowledge Statement	Mean Importance
14	Knowledge of methods for animal handling and restraint.	3.5362
16	Knowledge of ranges of normal physiological function in animals.	3.4043
17	Knowledge of animal physical anatomy.	3.3856
19	Knowledge of physiological indicators of abnormal function in animals.	3.3856
18	Knowledge of behavioral manifestations of disease and pain in animals.	3.3532
15	Knowledge of techniques and procedures to examine animal organ systems.	3.3178
13	Knowledge of techniques for evaluating animal demeanor, behavior, and responsiveness.	2.8729
21	Knowledge of body conditioning scoring system for animals.	2.6907
20	Knowledge of techniques and procedures to examine reproductive, performance, and production parameters in animals.	1.5191

Content Area 3
Patient Data Assessment

Number	Knowledge Statement	Mean Importance
26	Knowledge of differential diagnoses for problems.	3.2298
23	Knowledge of indications for euthanasia or slaughter.	3.1667
22	Knowledge of triage methods.	3.0720
25	Knowledge of methods to prioritize medical problem lists.	3.0381
34	Knowledge of infectious diseases.	3.0342
24	Knowledge of methods to develop medical problem lists.	2.9915
32	Knowledge of risk factors for disease transmission.	2.7830
27	Knowledge of signs of potential animal abuse and neglect.	2.6229
29	Knowledge of effects of nutrition on animal health.	2.6229
31	Knowledge of public health risks related to animal diseases.	2.4979
28	Knowledge of effects of environment on animal health.	2.4873
33	Knowledge of impact of animal husbandry practices on disease.	2.1191
30	Knowledge of effects of population dynamics on animal health.	1.4206

Content Area 4
Diagnostic Planning and Procedures

Number	Knowledge Statement	Mean Importance
35	Knowledge of risks, benefits, and limitations associated with diagnostic procedures.	3.1059
38	Knowledge of methods to perform diagnostic procedures on animals.	3.0766
36	Knowledge of methods to formulate diagnostic plans.	3.0720
37	Knowledge of methods and procedures for laboratory sample collection and submission.	2.9573
41	Knowledge of storage and handling of diagnostic samples.	2.7191
40	Knowledge of methods to evaluate animal diets and food.	1.8000
39	Knowledge of methods and procedures to perform necropsies.	1.3390

Content Area 5
Diagnostic Interpretation

Number	Knowledge Statement	Mean Importance
45	Knowledge of animal disease processes.	3.2468
47	Knowledge of techniques to communicate diagnostic findings and prognoses.	3.2043
44	Knowledge of methods to formulate working or final diagnoses for animals.	3.1489
43	Knowledge of methods to interpret diagnostic tests and procedures.	3.1149
46	Knowledge of methods to assess patient prognoses.	3.0340
42	Knowledge of statistical testing and analysis for evaluating diagnostic and epidemiological data.	1.0043

Content Area 6
Treatment Planning

Number	Knowledge Statement	Mean Importance
56	Knowledge of anesthetic and analgesic protocols.	3.3305
48	Knowledge of effects of treatment options on patients.	3.2542
53	Knowledge of treatment options based on diagnosis.	3.2500
60	Knowledge of interactions, contraindications, and adverse effects of prescribed treatments.	3.2119
54	Knowledge of infectious, contagious, and zoonotic diseases.	3.1186
61	Knowledge of indications for euthanasia or slaughter.	3.0940
52	Knowledge of conditions that may require referral or consultation.	3.0763
59	Knowledge of techniques to convey treatment options to clients.	2.9703
51	Knowledge of methods to prioritize treatment and management options.	2.9661
55	Knowledge of methods to control spread of disease.	2.9449
50	Knowledge of client-related factors that may affect treatment selection.	2.8468
49	Knowledge of effects of treatment options on public health and environment.	2.1059
58	Knowledge of animal behavior modification methods.	1.7585
57	Knowledge of animal physical therapy and rehabilitation methods.	1.4000

Content Area 7
Treatment

Number	Knowledge Statement	Mean Importance
63	Knowledge of methods and procedures for anesthesia and analgesia for animals.	3.3362
67	Knowledge of methods and procedures for medical treatment of animals.	3.2924
62	Knowledge of emergency and critical care treatment interventions.	3.2076
69	Knowledge of methods and procedures for euthanasia.	3.1931
75	Knowledge of evaluation of patient response to treatment.	3.1872
72	Knowledge of treatment complications.	3.1441
65	Knowledge of methods and procedures for surgical treatment of animals.	3.0890
76	Knowledge of techniques to communicate patient treatment response and follow-up care to clients.	3.0684
71	Knowledge of indications to modify treatment plans.	3.0128
66	Knowledge of methods and procedures for dental treatment of animals.	2.5297
74	Knowledge of therapeutic nutritional management for animals.	2.1483
68	Knowledge of methods and procedures for applying external therapeutic devices.	2.1356
73	Knowledge of environmental management in the treatment of animal diseases.	2.1111
64	Knowledge of methods and procedures for behavior modification in animals.	1.6766
70	Knowledge of methods and procedures for physical therapy and rehabilitation of animals.	1.3559

Content Area 8
Disease Prevention and Health Management

Number	Knowledge Statement	Mean Importance
90	Knowledge of pain management methods for animals.	3.3319
91	Knowledge of techniques to communicate patient preventive and management recommendations to clients.	3.0213
80	Knowledge of methods for parasite control in animals.	2.6809
79	Knowledge of methods to prevent transmission of communicable diseases in animals.	2.6426
87	Knowledge of personal protective equipment and decontamination protocols.	2.6239
89	Knowledge of weight management methods for animals.	2.2778
86	Knowledge of methods and protocols to control, prevent, or eradicate infectious diseases in animals.	2.2766
83	Knowledge of methods of preventive dental care.	2.1319
77	Knowledge of nutritional management in animals.	2.0766
88	Knowledge of animal husbandry.	2.0255
78	Knowledge of environmental management for animal disease prevention.	1.9444
81	Knowledge of physical conditioning to prevent injury and disease in animals.	1.6723
84	Knowledge of principles of animal population management.	1.2298
82	Knowledge of physical rehabilitation methods for animals.	1.2255
85	Knowledge of methods for reproduction, performance, and reproduction management in animals.	.8936

Content Area 9
Professional and Legal Responsibilities

Number	Knowledge Statement	Mean Importance
99	Knowledge of legal requirements related to prescribing, dispensing, administration, and disposal of controlled substances.	3.1429
93	Knowledge of legal requirements related to administration of medications to patients.	3.1288
92	Knowledge of legal requirements related to medication prescriptions.	3.1116
103	Knowledge of legal requirements related to veterinary record keeping.	3.1116
117	Knowledge of legal and professional standards related to documentation of veterinary care.	3.0773
111	Knowledge of legal standards for establishing and maintaining a veterinary-client-patient relationship.	3.0258
113	Knowledge of legal requirements related to informed consent.	2.9483
109	Knowledge of legal requirements related to minimum standards of veterinary practice.	2.9440
116	Knowledge of laws and regulations related to rabies control.	2.9440
94	Knowledge of legal requirements related to judicious use of antibiotics.	2.9013
112	Knowledge of legal requirements related to confidentiality of patient and client information.	2.8627
95	Knowledge of legal requirements related to drug consultation.	2.7468
107	Knowledge of legal requirements related to supervision of registered veterinary technicians and unregistered assistants.	2.7069
100	Knowledge of legal requirements related to handling, storage, and disposal of biohazardous waste.	2.6996
108	Knowledge of legal requirements related to scope of practice of registered veterinary technicians and unregistered assistants.	2.6595
105	Knowledge of legal requirements related to reportable diseases.	2.6266
97	Knowledge of legal requirements related to disposal of medications.	2.5931
102	Knowledge of legal requirements related to radiation safety.	2.5579
110	Knowledge of legal requirements related to standards for veterinary premises.	2.5043
106	Knowledge of legal requirements related to reporting suspected animal abuse or neglect.	2.3562
101	Knowledge of legal requirements related to movement of live animals.	2.1330
96	Knowledge of legal requirements and guidelines related to veterinary use of cannabis.	2.0644
104	Knowledge of legal requirements related to abandonment of animals.	1.9914
98	Knowledge of potential agents of agro- and bio-terrorism.	1.2618
114	Knowledge of legal responsibilities to prevent drug residues in food chain.	1.2403
115	Knowledge of laws and regulations regarding restrictions of performance-enhancing drugs.	.9957

APPENDIX D | INVITATION TO PRACTITIONERS

[redacted]@DCA

From: [redacted]@dca.ca.gov via SurveyMonkey <member@surveymonkeyuser.com>
Sent: [redacted]
To: [redacted]@DCA
Subject: We want your opinion

[EXTERNAL]: survey-noreply@mr.surveymonkeyuser.com

2019 Veterinarian Occupational Analysis Questionnaire

We're conducting a survey and your input would be appreciated. Click the button below to start the survey.
Thank you for your participation!

Begin Survey

Please do not forward this email as its survey link is unique to you.
Privacy | Unsubscribe

Powered by SurveyMonkey

APPENDIX E | QUESTIONNAIRE

2019 Veterinarian Occupational Analysis Questionnaire

Occupational Analysis of the Veterinarian Profession

Dear Licensed Veterinarian,

Thank you for participating in this study of the veterinarian profession in California, a project of the California Veterinary Medical Board (Board). **For completing this questionnaire in full, you will receive 3 continuing education (CE) credits.** The credits will be issued for fully completed questionnaires approximately 4-6 weeks after the survey closes. To receive these credits, you must enter your veterinary license number at the end of the questionnaire.

The Board is conducting an occupational analysis of the veterinarian profession. The purpose of the occupational analysis is to identify the important tasks performed by veterinarians in their current work and the knowledge required to perform those tasks effectively. Results of the occupational analysis will be used to ensure that the examinations required for licensure as a veterinarian in California reflect current practice. Your participation in the occupational analysis is essential. The Board requires responses from many licensees to achieve representation from different geographic regions of the state and from different work settings.

Please take the time to complete the questionnaire as it relates to your current work. Your responses will be kept confidential and will not be tied to your license or any other personal information. Individual responses will be combined with the responses of other veterinarians and only group data will be analyzed.

For your convenience, you do not have to complete the questionnaire in a single session. Before you exit, complete the page that you are on. You can resume where you stopped as long as you reopen the questionnaire from the same computer and use the same web browser. The web link is available 24 hours a day, 7 days a week.

To begin the survey, please click Next. Any question marked with an asterisk must be answered before you can progress through the questionnaire. Please submit the completed questionnaire by June 30th, 2019.

If you have any questions or need assistance, please contact Brian Knox at Brian.knox@dca.ca.gov.

The Board welcomes your feedback and appreciates your time!

Part I - Personal Data

The information you provide here is voluntary and confidential. It will be treated as personal information subject to the Information Practices Act (Civil Code, Section 1798 et seq.), and will be used only for the purpose of analyzing the ratings from this questionnaire.

*** 1. Are you currently practicing as a California-licensed veterinarian?**

- ○ Yes
- ○ No

Part I - Personal Data (Continued)

2. How many years have you been practicing as a veterinarian (i.e., including practice in other states)?

- ○ 0 to 5 years
- ○ 6 to 10 years
- ○ 11 to 15 years
- ○ 16 or more years

3. How many years have you been practicing in California as a licensed veterinarian?

- ○ 0 to 5 years
- ○ 6 to 10 years
- ○ 11 to 15 years
- ○ 16 or more years

4. Are you currently licensed as a veterinarian outside of California?

- ○ No
- ○ Yes (please specify)

Part I - Personal Data (continued)

5. How many hours per week do you work as a licensed veterinarian?

- ○ 0 to 10 hours
- ○ 11 to 20 hours
- ○ 21 to 30 hours
- ○ 31 to 40 hours
- ○ 41 or more hours

6. How many other licensed veterinarians work in the practice where you work?

- ○ I am the sole veterinarian
- ○ 1 to 3 other veterinarians
- ○ 4 to 5 other veterinarians
- ○ 6 to 10 other veterinarians
- ○ 11 or more other veterinarians

7. How would you classify the majority of your responsibilities as a licensed veterinarian?

- ○ Practitioner
- ○ Consultant
- ○ Education/Research
- ○ Management
- ○ Other (please specify)

8. What best describes your primary employer?

- ○ Private practice
- ○ Corporation
- ○ Government
- ○ Academia
- ○ Nonprofit
- ○ Other (please specify)

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Part I - Personal Data (continued)

9. How would you describe your work? (Check all that apply.)

- [ ] Small animal
- [ ] Equine
- [ ] Food animal
- [ ] Mixed practice
- [ ] Regulatory
- [ ] Academic/research
- [ ] Exotic/zoo/wildlife
- [ ] Shelter medicine
- [ ] Laboratory/Biologic/Pharmaceutical

10. Which of the following types of patients do you treat? (Check all that apply.)

- [ ] Avian (commercial poultry or fowl)
- [ ] Avian (pet bird)
- [ ] Cats
- [ ] Cattle (beef or dairy)
- [ ] Camelids
- [ ] Dogs
- [ ] Equine (horses)
- [ ] Other equine (e.g., donkeys, mules)
- [ ] Exotic animal (e.g., amphibians, reptiles, chinchillas, fish, guinea pigs, hamsters, rabbits)
- [ ] Sheep and goats
- [ ] Swine
- [ ] Zoo or wild animals (e.g., nonhuman primates)
- [ ] Aquatic or marine
- [ ] None, I do not treat animals

Other (please specify)

11. What describes the location of your primary work setting?

- ○ Urban (more than 50,000)
- ○ Rural (50,000 or fewer)

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Part I - Personal Data (continued)

12. In what California county do you perform the majority of your work?

- ○ Alameda
- ○ Alpine
- ○ Amador
- ○ Butte
- ○ Calaveras
- ○ Colusa
- ○ Contra Costa
- ○ Del Norte
- ○ El Dorado
- ○ Fresno
- ○ Glenn
- ○ Humboldt
- ○ Imperial
- ○ Inyo
- ○ Kern
- ○ Kings
- ○ Lake
- ○ Lassen
- ○ Los Angeles
- ○ Madera
- ○ Marin
- ○ Mariposa
- ○ Mendocino
- ○ Merced
- ○ Modoc
- ○ Mono
- ○ Monterey
- ○ Napa
- ○ Nevada
- ○ Orange
- ○ Placer
- ○ Plumas
- ○ Riverside
- ○ Sacramento
- ○ San Benito
- ○ San Bernardino
- ○ San Diego
- ○ San Francisco
- ○ San Joaquin
- ○ San Luis Obispo
- ○ San Mateo
- ○ Santa Barbara
- ○ Santa Clara
- ○ Santa Cruz
- ○ Shasta
- ○ Sierra
- ○ Siskiyou
- ○ Solano
- ○ Sonoma
- ○ Stanislaus
- ○ Sutter
- ○ Tehama
- ○ Trinity
- ○ Tulare
- ○ Tuolumne
- ○ Ventura
- ○ Yolo
- ○ Yuba

Part II - Task Rating Instructions

In this part of the questionnaire, you will be presented with 99 tasks reflecting the nature of veterinarian practice in California.

Please rate each task as it relates to **your current practice** or **the veterinarian-related tasks performed by the employees that you supervise.**

Your frequency and importance ratings should be separate and independent ratings. Therefore, the ratings that you assign on one rating scale should not influence the ratings that you assign on the other rating scale. For example, you may perform a task frequently, but that task may not be important. Or you may perform a task infrequently, but that task may be very important.

If the task is NOT part of your current practice, rate the task "0" (zero) frequency and "0" (zero) importance. Tasks that you perform frequently should be rated high on the frequency scale and tasks that are important to your work as a veterinarian should be rated high on the importance scale.

Choose the rating that best fits each task.

Please use the scales below to rate the tasks on the following pages.

FREQUENCY SCALE

HOW OFTEN do you perform this task in your current practice? Consider all of the practice tasks you have performed over the past year and make your judgment relative to all other tasks you perform.

0 – DOES NOT APPLY. I do not perform this task in my current practice.
1 – RARELY. I perform this task the least often in my current practice relative to other tasks I perform.
2 – SELDOM. I perform this task less often than most other tasks I perform in my current practice.
3 – REGULARLY. I perform this task as often as other tasks I perform in my current practice.
4 – OFTEN. I perform this task more often than most other tasks I perform in my current practice.
5 – VERY OFTEN. This task is one of the tasks I perform most often in my current practice relative to other tasks I perform.

IMPORTANCE SCALE

HOW IMPORTANT is performance of this task for effective performance in your current practice? Consider all of the job tasks you have performed over the past year and make your judgment relative to all other tasks you perform.

0 – DOES NOT APPLY. I do not perform this task in my current practice.
1 – NOT IMPORTANT. This task is not important for effective performance in my current practice.
2 – FAIRLY IMPORTANT. This task is somewhat important for effective performance in my current practice.
3 – IMPORTANT. This task is important for effective performance in my current practice.

4 – VERY IMPORTANT. This task is very important for effective performance in my current practice.
5 – CRITICALLY IMPORTANT. This task is extremely important for effective performance in my current practice.

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Part II - Obtaining Patient Signalment and History

13. Please rate the following tasks based on how often you or the employees you supervise perform the task (Frequency) and how important the task is for effective performance (Importance).

	Frequency	Importance
1. Obtain patient signalment.		
2. Identify patient presenting complaints.		
3. Obtain duration, severity, and rate of progression of patient condition.		
4. Obtain patient past and current medical health history.		
5. Obtain patient preventive history.		
6. Obtain patient origin, travel history, and disease exposure.		
7. Collect information about patient attitude, appetite, elimination, and behavior.		
8. Obtain patient diet and feeding history.		
9. Obtain patient reproductive, production, or performance history.		
10. Collect information about patient housing, environment, and interactions with other animals and humans.		
11. Obtain information about management practices (e.g., husbandry, welfare, handling).		

Part II - Performing Patient Physical Examination

14. Please rate the following tasks based on how often you or the employees you supervise perform the task (Frequency) and how important the task is for effective performance (Importance).

	Frequency	Importance
12. Evaluate patient demeanor, behavior, and responsiveness.		
13. Restrain patient to perform examination.		
14. Obtain patient vital signs.		
15. Examine patient oral cavity.		
16. Examine patient digestive system.		
17. Examine patient musculoskeletal system.		
18. Examine patient cardiovascular system.		
19. Examine patient respiratory system.		
20. Examine patient integumentary system.		
21. Examine patient nervous system.		
22. Examine patient otic system.		
23. Examine patient ophthalmic system.		
24. Examine patient urogenital system.		
25. Examine patient lymphatic system.		
26. Determine patient body condition score.		
27. Evaluate patient performance and production.		

Part II - Assessing Patient Data

15. Please rate the following tasks based on how often you or the employees you supervise perform the task (Frequency) and how important the task is for effective performance (Importance).

	Frequency	Importance
28. Evaluate patient data to determine whether additional information is needed.		
29. Identify patient conditions that require emergency management.		
30. Develop problem list based on patient history and physical examination.		
31. Develop list of differential diagnoses for identified problems.		
32. Determine public health risks related to animal disease.		
33. Identify animal and population health risks (e.g., genetic, nutritional, environmental).		
34. Identify factors that may indicate animal abuse or neglect.		

Part II - Diagnostic Planning and Procedures

16. Please rate the following tasks based on how often you or the employees you supervise perform the task (Frequency) and how important the task is for effective performance (Importance).

	Frequency	Importance
35. Identify risks, benefits, and limitations of diagnostic procedures.		
36. Formulate diagnostic plans to revise differential diagnoses lists.		
37. Collect and submit samples for laboratory diagnostic tests.		
38. Perform necropsy.		
39. Analyze patient diets and food.		
40. Perform diagnostic procedures on patients.		

Part II - Diagnostic Interpretation

17. Please rate the following tasks based on how often you or the employees you supervise perform the task (Frequency) and how important the task is for effective performance (Importance).

	Frequency	Importance
41. Interpret patient diagnostic results.		
42. Analyze epidemiological data.		
43. Formulate working or final diagnoses for patients.		
44. Determine patient prognoses.		
45. Communicate patient diagnostic findings and prognoses.		

Part II - Treatment Planning

18. Please rate the following tasks based on how often you or the employees you supervise perform the task (Frequency) and how important the task is for effective performance (Importance).

	Frequency	Importance
46. Identify risks and benefits of treatment options.		
47. Prioritize treatment options and management of presenting problems.		
48. Formulate treatment plans.		
49. Formulate anesthetic and analgesic plans.		
50. Formulate behavior modification plans.		
51. Formulate physical therapy and rehabilitation plans.		
52. Formulate contagion control plans.		
53. Communicate treatment options to clients.		
54. Identify indications for referral or consultation.		
55. Identify indications for humane euthanasia or slaughter.		

Part II - Treatment

19. Please rate the following tasks based on how often you or the employees you supervise perform the task (Frequency) and how important the task is for effective performance (Importance).

	Frequency	Importance
56. Prescribe medical treatment for patients.		
57. Implement medical treatment for patients.		
58. Administer and monitor anesthesia and analgesia.		
59 Perform surgical procedures on patients.		
60. Perform dental procedures on patients.		
61. Apply external therapeutic devices (e.g., bandages, splints, or E-collar) to patients.		
62. Perform physical therapy and rehabilitation on patients.		
63. Perform emergency and critical care procedures on patients.		
64. Evaluate patient responses to treatments.		
65. Determine need for modification of patient treatment plans.		
66. Perform humane euthanasia.		
67. Communicate patient treatment responses and follow-up care to clients.		

Part II - Health Prevention and Management

20. Please rate the following tasks based on how often you or the employees you supervise perform the task (Frequency) and how important the task is for effective performance (Importance).

	Frequency	Importance
68. Develop nutritional plans for patients.		
69. Develop environmental plans for patients.		
70. Develop plans to prevent or control infectious diseases.		
71. Develop plans to control parasites in patients.		
72. Develop plans to improve patient physical conditioning.		
73. Develop physical rehabilitation plans for patients.		
74. Develop plans to improve patient dental health.		
75. Develop population management plans.		
76. Develop reproductive, performance, or production health plans for patients.		
77. Develop biosecurity plans.		
78. Develop pain management plans for patients.		
79. Develop weight management plans for patients.		
80. Communicate patient preventive and management recommendations to clients.		

Part II - Professional And Legal Responsibilities

21. Please rate the following tasks based on how often you or the employees you supervise perform the task (Frequency) and how important the task is for effective performance (Importance).

	Frequency	Importance
81. Prescribe, dispense, administer, and dispose of medications and treatments in accordance with laws and regulations.		
82. Maintain awareness of potential agro- and bio-terrorism agents.		
83. Prescribe, dispense, administer, and dispose of controlled substances in accordance with laws and regulations.		
84. Handle, store, and dispose of biohazardous waste in accordance with laws and regulations.		
85. Complete documents required for movement of animals.		
86. Handle radioactive materials and radiographic equipment in accordance with laws and regulations.		
87. Maintain complete patient medical records in accordance with laws and regulations.		
88. Manage abandoned animal cases.		
89. Report diseases in accordance with laws and regulations.		
90. Report cases of suspected animal abuse and neglect as mandated by law.		
91. Supervise registered veterinary technicians and unregistered assistants in accordance with Veterinary Medical Board regulations.		
92. Manage practice in accordance with laws and regulations related to minimum standards of care.		
93. Maintain veterinary premises in accordance with legal requirements.		
94. Establish and maintain veterinary-client-patient relationships as required by laws and regulations.		
95. Disclose information about patients or clients in accordance with laws and regulations.		
96. Obtain informed consent for diagnostic testing and treatment.		

	Frequency	Importance
97. Manage drug prescriptions for production or performance animals in accordance with laws and regulations.		
98. Manage patients with rabies in accordance with laws and regulations.		
99. Document provision of care in accordance with legal and professional standards.		

Part III - Knowledge Rating Instructions

In this part of the questionnaire, you will be presented with 117 knowledge statements. Please rate each knowledge statement based on how **important** you feel the knowledge is to the effective performance of **your** tasks or the tasks performed by **the employees that you supervise**.

If a knowledge is NOT a part of your current practice, rate the statement "0" (zero) **importance** and go on to the next item.

Use the following scale to rate each knowledge importance.

IMPORTANCE SCALE

HOW IMPORTANT is this knowledge for effective performance of tasks in your current practice?
0 – DOES NOT APPLY. This knowledge is not required for effective performance of tasks in my current practice.
1 – NOT IMPORTANT. This knowledge is not important for effective performance of tasks in my current practice.
2 – FAIRLY IMPORTANT. This knowledge is somewhat important for effective performance of tasks in my current practice.
3 – IMPORTANT. This knowledge is important for effective performance of tasks in my current practice.
4 – VERY IMPORTANT. This knowledge is very important for effective performance of tasks in my current practice.
5 – CRITICALLY IMPORTANT. This knowledge is extremely important for effective performance of tasks in my current practice.

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Part III - Obtaining Patient Signalment History

22. HOW IMPORTANT is this knowledge for effective performance of tasks in your current practice?

	Not Important/Does Not Apply	Somewhat Important	Fairly Important	Important	Very Important	Critically Important
1. Knowledge of problems associated with signalment.	○	○	○	○	○	○
2. Knowledge of client interviewing techniques to obtain patient history.	○	○	○	○	○	○
3. Knowledge of methods to extract patient information from medical records.	○	○	○	○	○	○
4. Knowledge of regional animal diseases.	○	○	○	○	○	○
5. Knowledge of ranges of normal animal behavior.	○	○	○	○	○	○
6. Knowledge of effects of housing and environment on animal health.	○	○	○	○	○	○
7. Knowledge of effects of interactions with humans and other animals on animal health.	○	○	○	○	○	○
8. Knowledge of effects of management practices on animal health.	○	○	○	○	○	○
9. Knowledge of effects of prior medical history on current health status of animals.	○	○	○	○	○	○
10. Knowledge of normal attitude, eating, elimination patterns, and nutritional needs of animals.	○	○	○	○	○	○
11. Knowledge of normal growth and development in animals.	○	○	○	○	○	○
12. Knowledge of normal reproduction, performance, and production parameters in animals.	○	○	○	○	○	○

Part III - Performing Patient Physical Examination

23. HOW IMPORTANT is this knowledge for effective performance of tasks in your current practice?

	Not Important/Does Not Apply	Somewhat Important	Fairly Important	Important	Very Important	Critically Important
13. Knowledge of techniques for evaluating animal demeanor, behavior, and responsiveness.	○	○	○	○	○	○
14. Knowledge of methods for animal handling and restraint.	○	○	○	○	○	○
15. Knowledge of techniques and procedures to examine animal organ systems.	○	○	○	○	○	○
16. Knowledge of ranges of normal physiological function in animals.	○	○	○	○	○	○
17. Knowledge of animal physical anatomy.	○	○	○	○	○	○
18. Knowledge of behavioral manifestations of disease and pain in animals.	○	○	○	○	○	○
19. Knowledge of physiological indicators of abnormal function in animals.	○	○	○	○	○	○
20. Knowledge of techniques and procedures to examine reproductive, performance, and production parameters in animals.	○	○	○	○	○	○
21. Knowledge of body conditioning scoring system for animals.	○	○	○	○	○	○

Part III - Assessing Patient Data

24. HOW IMPORTANT is this knowledge for effective performance of tasks in your practice?

	Not Important/Does Not Apply	Somewhat Important	Fairly Important	Important	Very Important	Critically Important
22. Knowledge of triage methods.	○	○	○	○	○	○
23. Knowledge of indications for euthanasia or slaughter.	○	○	○	○	○	○
24. Knowledge of methods to develop medical problem lists.	○	○	○	○	○	○
25. Knowledge of methods to prioritize medical problem lists.	○	○	○	○	○	○
26. Knowledge of differential diagnoses for problems.	○	○	○	○	○	○
27. Knowledge of signs of potential animal abuse and neglect.	○	○	○	○	○	○
28. Knowledge of effects of environment on animal health.	○	○	○	○	○	○
29. Knowledge of effects of nutrition on animal health.	○	○	○	○	○	○
30. Knowledge of effects of population dynamics on animal health.	○	○	○	○	○	○
31. Knowledge of public health risks related to animal diseases.	○	○	○	○	○	○
32. Knowledge of risk factors for disease transmission.	○	○	○	○	○	○
33. Knowledge of impact of animal husbandry practices on disease.	○	○	○	○	○	○
34. Knowledge of infectious diseases.	○	○	○	○	○	○

Part III - Diagnostic Planning and Procedures

25. HOW IMPORTANT is this knowledge for effective performance of tasks in your practice?

	Not Important/Does Not Apply	Somewhat Important	Fairly Important	Important	Very Important	Critically Important
35. Knowledge of risks, benefits, and limitations associated with diagnostic procedures.	○	○	○	○	○	○
36. Knowledge of methods to formulate diagnostic plans.	○	○	○	○	○	○
37. Knowledge of methods and procedures for laboratory sample collection and submission.	○	○	○	○	○	○
38. Knowledge of methods to perform diagnostic procedures on animals.	○	○	○	○	○	○
39. Knowledge of methods and procedures to perform necropsies.	○	○	○	○	○	○
40. Knowledge of methods to evaluate animal diets and food.	○	○	○	○	○	○
41. Knowledge of storage and handling of diagnostic samples.	○	○	○	○	○	○

Part III - Diagnostic Interpretation

26. HOW IMPORTANT is this knowledge for effective performance of tasks in your current practice?

	Not Important/Does Not Apply	Somewhat Important	Fairly Important	Important	Very Important	Critically Important
42. Knowledge of statistical testing and analysis for evaluating diagnostic and epidemiological data.	○	○	○	○	○	○
43. Knowledge of methods to interpret diagnostic tests and procedures.	○	○	○	○	○	○
44. Knowledge of methods to formulate working or final diagnoses for animals.	○	○	○	○	○	○
45. Knowledge of animal disease processes.	○	○	○	○	○	○
46. Knowledge of methods to assess patient prognoses.	○	○	○	○	○	○
47. Knowledge of techniques to communicate diagnostic findings and prognoses.	○	○	○	○	○	○

Part III - Treatment Planning

27. HOW IMPORTANT is this knowledge for effective performance of tasks in your current practice?

	Not Important/Does Not Apply	Somewhat Important	Fairly Important	Important	Very Important	Critically Important
48. Knowledge of effects of treatment options on patients.	○	○	○	○	○	○
49. Knowledge of effects of treatment options on public health and environment.	○	○	○	○	○	○
50. Knowledge of client-related factors that may affect treatment selection.	○	○	○	○	○	○
51. Knowledge of methods to prioritize treatment and management options.	○	○	○	○	○	○
52. Knowledge of conditions that may require referral or consultation.	○	○	○	○	○	○
53. Knowledge of treatment options based on diagnosis.	○	○	○	○	○	○
54. Knowledge of infectious, contagious, and zoonotic diseases.	○	○	○	○	○	○
55. Knowledge of methods to control spread of disease.	○	○	○	○	○	○
56. Knowledge of anesthetic and analgesic protocols.	○	○	○	○	○	○
57. Knowledge of animal physical therapy and rehabilitation methods.	○	○	○	○	○	○
58. Knowledge of animal behavior modification methods.	○	○	○	○	○	○
59. Knowledge of techniques to convey treatment options to clients.	○	○	○	○	○	○
60. Knowledge of interactions, contraindications, and adverse effects of prescribed treatments.	○	○	○	○	○	○
61. Knowledge of indications for euthanasia or slaughter.	○	○	○	○	○	○

Part III - Treatment

28. HOW IMPORTANT is this knowledge for effective performance of tasks your current practice?

	Not Important/Does Not Apply	Somewhat Important	Fairly Important	Important	Very Important	Critically Important
62. Knowledge of emergency and critical care treatment interventions.	○	○	○	○	○	○
63. Knowledge of methods and procedures for anesthesia and analgesia for animals.	○	○	○	○	○	○
64. Knowledge of methods and procedures for behavior modification in animals.	○	○	○	○	○	○
65. Knowledge of methods and procedures for surgical treatment of animals.	○	○	○	○	○	○
66. Knowledge of methods and procedures for dental treatment of animals.	○	○	○	○	○	○
67. Knowledge of methods and procedures for medical treatment of animals.	○	○	○	○	○	○
68. Knowledge of methods and procedures for applying external therapeutic devices.	○	○	○	○	○	○
69. Knowledge of methods and procedures for euthanasia.	○	○	○	○	○	○
70. Knowledge of methods and procedures for physical therapy and rehabilitation of animals.	○	○	○	○	○	○
71. Knowledge of indications to modify treatment plans.	○	○	○	○	○	○
72. Knowledge of treatment complications.	○	○	○	○	○	○
73. Knowledge of environmental management in the treatment of animal diseases.	○	○	○	○	○	○
74. Knowledge of therapeutic nutritional management for animals.	○	○	○	○	○	○

	Not Important/Does Not Apply	Somewhat Important	Fairly Important	Important	Very Important	Critically Important
75. Knowledge of evaluation of patient response to treatment.	○	○	○	○	○	○
76. Knowledge of techniques to communicate patient treatment response and follow-up care to clients.	○	○	○	○	○	○

Part III - Health Prevention And Management

29. HOW IMPORTANT is this knowledge for effective performance of tasks in your current practice?

	Not Important/Does Not Apply	Somewhat Important	Fairly Important	Important	Very Important	Critically Important
77. Knowledge of nutritional management in animals.	○	○	○	○	○	○
78. Knowledge of environmental management for animal disease prevention.	○	○	○	○	○	○
79. Knowledge of methods to prevent transmission of communicable diseases in animals.	○	○	○	○	○	○
80. Knowledge of methods for parasite control in animals.	○	○	○	○	○	○
81. Knowledge of physical conditioning to prevent injury and disease in animals.	○	○	○	○	○	○
82. Knowledge of physical rehabilitation methods for animals.	○	○	○	○	○	○
83. Knowledge of methods of preventive dental care.	○	○	○	○	○	○
84. Knowledge of principles of animal population management.	○	○	○	○	○	○
85. Knowledge of methods for reproduction, performance, and reproduction management in animals.	○	○	○	○	○	○
86. Knowledge of methods and protocols to control, prevent, or eradicate infectious diseases in animals.	○	○	○	○	○	○
87. Knowledge of personal protective equipment and decontamination protocols.	○	○	○	○	○	○
88. Knowledge of animal husbandry.	○	○	○	○	○	○
89. Knowledge of weight management methods for animals.	○	○	○	○	○	○
90. Knowledge of pain management methods for animals.	○	○	○	○	○	○

	Not Important/Does Not Apply	Somewhat Important	Fairly Important	Important	Very Important	Critically Important
91. Knowledge of techniques to communicate patient preventive and management recommendations to clients.	○	○	○	○	○	○

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Part III - Professional and Legal Responsibilities

30. HOW IMPORTANT is this knowledge for effective performance of tasks in your current practice?

	Not Important/Does Not Apply	Somewhat Important	Fairly Important	Important	Very Important	Critically Important
92. Knowledge of legal requirements related to medication prescriptions.	○	○	○	○	○	○
93. Knowledge of legal requirements related to administration of medications to patients.	○	○	○	○	○	○
94. Knowledge of legal requirements related to judicious use of antibiotics.	○	○	○	○	○	○
95. Knowledge of legal requirements related to drug consultation.	○	○	○	○	○	○
96. Knowledge of legal requirements and guidelines related to veterinary use of cannabis.	○	○	○	○	○	○
97. Knowledge of legal requirements related to disposal of medications.	○	○	○	○	○	○
98. Knowledge of potential agents of agro- and bio-terrorism.	○	○	○	○	○	○
99. Knowledge of legal requirements related to prescribing, dispensing, administration, and disposal of controlled substances.	○	○	○	○	○	○
100. Knowledge of legal requirements related to handling, storage, and disposal of biohazardous waste.	○	○	○	○	○	○
101. Knowledge of legal requirements related to movement of live animals.	○	○	○	○	○	○
102. Knowledge of legal requirements related to radiation safety.	○	○	○	○	○	○
103. Knowledge of legal requirements related to veterinary record keeping.	○	○	○	○	○	○
104. Knowledge of legal requirements related to abandonment of animals.	○	○	○	○	○	○
105. Knowledge of legal requirements related to reportable diseases.	○	○	○	○	○	○

	Not Important/Does Not Apply	Somewhat Important	Fairly Important	Important	Very Important	Critically Important
106. Knowledge of legal requirements related to reporting suspected animal abuse or neglect.	○	○	○	○	○	○
107. Knowledge of legal requirements related to supervision of registered veterinary technicians and unregistered assistants.	○	○	○	○	○	○
108. Knowledge of legal requirements related to scope of practice of registered veterinary technicians and unregistered assistants.	○	○	○	○	○	○
109. Knowledge of legal requirements related to minimum standards of veterinary practice.	○	○	○	○	○	○
110. Knowledge of legal requirements related to standards for veterinary premises.	○	○	○	○	○	○
111. Knowledge of legal standards for establishing and maintaining a veterinary-client-patient relationship.	○	○	○	○	○	○
112. Knowledge of legal requirements related to confidentiality of patient and client information.	○	○	○	○	○	○
113. Knowledge of legal requirements related to informed consent.	○	○	○	○	○	○
114. Knowledge of legal responsibilities to prevent drug residues in food chain.	○	○	○	○	○	○
115. Knowledge of laws and regulations regarding restrictions of performance-enhancing drugs.	○	○	○	○	○	○
116. Knowledge of laws and regulations related to rabies control.	○	○	○	○	○	○
117. Knowledge of legal and professional standards related to documentation of veterinary care.	○	○	○	○	○	○

Part IV - Continuing Education Credit

31. To receive 3 CE credits for completing this questionnaire, please enter your veterinary license number.

THANK YOU!

You have completed this questionnaire! Thank you for participating!