

TASK AND BLUEPRINT LISTS AND CONTENT PERCENTAGES FOR ANATOMIC PATHOLOGY
(From the 2016 Job Task Analysis Approved by Council)

TESTABLE

TASK 1: Identify, describe and interpret microscopic conditions in domestic and non-domestic animals

- *Tested using glass or virtual slide essays and MCQs*
- *~40% of Phase II*

Skills and knowledge to:

- Write a coherent, organized histopathologic description
- Give a morphologic diagnosis
- Give appropriate disease, condition, and/or differential diagnoses
- List potential causes(s)
- Describe/relate to associated macroscopic and clinicopathologic findings and changes in other organs
- Select appropriate ancillary tests and interpret their results (e.g. special stains, immunohistochemistry, electron microscopy, PCR-based clonality, flow cytometry, cytology, etc.)

TASK 2: Identify and interpret macroscopic conditions in domestic and non-domestic animals

- *Tested via image-based MCQs*
- *~20% of Phase II*

Skills and knowledge to:

- Give a morphologic diagnosis
- Give appropriate disease, condition, or differential diagnoses
- List potential cause (s)
- Outline a pathogenesis
- Relate to clinical information and histologic findings
- Describe associated changes in other organs or clinicopathologic findings
- Select appropriate ancillary tests and interpret their results (e.g. special stains, immunohistochemistry, electron microscopy, PCR-based clonality, flow cytometry, cytology, in situ hybridization, etc.)

TASK 3: Interpret clinicopathologic data from domestic and non-domestic animals

- *Tested via MCQs*
- *~10% of the Phase II*

Skills and knowledge to:

- Recognize the cause (or most likely causes) of laboratory abnormalities
- Integrate laboratory abnormalities into a diagnosis (or likely differential diagnoses)
- Select appropriate ancillary tests to further refine a diagnosis or differential diagnoses

TASK 4: Apply knowledge of the pathophysiology, progression and diagnosis of disease in animals

- *Tested via non-image based MCQs*
- *~30% of the Phase II*

Using Knowledge of:

- The pathology and pathogenesis of diseases of domestic animals (cattle, sheep, goat, horse, dog, and cat).
- The pathology and pathogenesis of, and prognosis for, common conditions of nondomestic animals
- New and emerging diseases
- Well-recognized animal models of human disease
- Core concepts and current literature
- The integration of test results (microscopic, hematologic, biochemical, etc.) and clinical information

TASK 5 Demonstrate knowledge of laboratory technology

- *Tested via non-image based MCQs*
- *~2% of the Phase II*

Using knowledge of:

- Principles of commonly used laboratory tests
- Quality assurance and quality control for laboratory tests

TASK 6 Demonstrate knowledge of the basic mechanisms of disease

- *Tested via MCQs, mainly non-image based*
- *100% if Phase 1*

Using knowledge of:

- Mechanisms fundamental to disease in animals, including principles of:
 - Cellular injury
 - Inflammation and repair
 - Hemodynamic disorders
 - Physical and chemical injury
 - Neoplasia
 - Congenital and genetic diseases
 - Molecular pathology
 - Infectious processes
 - Immunology
 - Laboratory technology and data analysis
 - Including fundamentals of molecular and immunologic diagnostic testing, immunohistochemistry/immunocytochemistry procedures, application of common histochemical/cytochemical stains, laboratory safety, and basic statistics for data analysis
- Mechanisms are general in nature in that they relate to most animal species

NON-TESTABLE TASKS

TASK 7: Data Collection, Analysis and Interpretation

- Perform necropsies and collect gross morphometric data by weighing and/or measuring tissues, lesions, organs, whole animals, and other specimens in accordance

with established protocols and using professional judgment in order to understand pathogenesis, diagnose disease, and/or perform quantitative data analysis.

- Review antemortem data and history using a systematic process in order to support the collection of relevant samples.
- Collect specimens and/or guide others in sample collection according to protocols or professional judgment for histology, cytology, and other testing for subsequent analysis or archiving in order to preserve sample integrity.
- Describe gross morphological observations using a systematic approach and appropriate, medical terminology in order to provide a complete and accurate record.
- Integrate individual animal data by correlating clinical pathology, toxicology, diagnostic imaging, microbiology, and other test results with morphology in order to characterize the pathogenesis of disease or formulate a diagnosis.
- Identify artifacts in tissue sections and other samples using professional judgment and expertise in order to identify those that could be misinterpreted or impede the ability to assess the tissue response accurately.

TASK 8: Communicate pathology findings and their significance through clear and concise oral and written reports to regulators, clinicians, scientists and other stakeholders in order to provide appropriate context

Phase II Blueprint Category Targets

Distribution by Species

S1 Domestic	55 – 65%
S2 Lab animal	25 – 30%
S3 Non-domestic	10 – 15%

Distribution by Organ system

O1 Hemolymphatic	2 – 12%
O2 Skin/Integument	2 – 12%
O3 Cardiovascular	2 – 12%
O3 Gastrointestinal	5 – 12%
O4 Pancreas, exocrine	2 – 12%
O5 Liver	5 – 12%
O6 Endocrine	2 – 12%
O7 Renal	5 – 12%
O8 Respiratory	5 – 12%
O9 Nervous and special senses	2 – 12%
O10 Musculoskeletal	2 – 12%
O11 Reproductive	2 – 12%
O13 Multiorgan/Systemic/Other	2 – 12%
O14 Non-organ based	2 – 12%

Distribution by topic

C1 Genetic	5 – 10%
C2 Disturbance of growth/neoplasia	15 – 25%
C3 Cell aging/degeneration/injury/death	5 – 10%
C4 Infection/immunity/inflammation	35 – 55%
C5 Metabolic/Nutritional/Deficiency	5 – 10%
C6 Hemodynamic/Vascular disease	5 – 10%
C7 Lab Analysis	3 – 5%

Phase I (General Pathology Blueprint)

Distribution by topic (Phase I Examination targets, same for both Anatomical and Clinical Pathology)

C1 Genetic	5 – 10%
C2 Disturbance of growth/neoplasia	15 – 25%
C3 Cell aging/degeneration/injury/death	5 – 15%
C4 Infection/immunity/inflammation	35 – 55%
C5 Metabolic/nutritional/deficiency	5 – 10%
C6 Hemodynamic/vascular disease	5 – 10%
C7 Laboratory technology/analysis	3 – 5%