SMALL ANIMAL MEDICINE (SAM) NEUROLOGY PRACTICE EXAM (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

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How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

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Questions

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1. If a dog had an exaggerated patellar reflex, what type of lesion would this indicate?

A. LMN lesion

B. Peripheral neuropathy

C. Central nervous system disease

D. UMN lesion

2. Which antiseizure medication would you choose for a patient with decreased liver function?

A. Diazepam

B. Potassium Bromide

C. Levetiracetam

D. Phenobarbital

3. Central vestibular disease presents with proprioceptive deficits, altered mentation, and vertical nystagmus.

A. Central vestibular disease

B. Peripheral vestibular disease

C. Inner ear infection

D. Cerebellar disease

4. Which of the following is an example of a central vestibular disease cause?

A. Meningoencephalitis

B. Hypothyroidism

C. Otitis media/interna

D. Metronidazole toxicity

5. What is the most reliable forelimb reflex test?

A. Flexor/Withdrawal reflex

B. Biceps reflex

C. Triceps reflex

D. Extensor carpi radialis reflex

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6. What is the prognosis for cervical IVDD with medical management in ambulatory patients?

A. Excellent prognosis with no recurrence

B. Poor prognosis with high recurrence

C. Good prognosis with about 36% recurrence

D. Uncertain prognosis

7. For idiopathic vestibular disease, which statement is true?

A. Signs stabilize in 2-3 days and resolve in 2-3 weeks; symptomatic treatment with diazepam or Cerenia

B. It requires antibiotics immediately

C. It progresses rapidly with seizures

D. It is caused by otitis externa

8. Which statement about Feline Ischemic Encephalopathy is NOT described in the materials?

A. Acute Forebrain Signs

B. Migrating Brain Larvae

C. Vascular Compromise

D. Chronic Progressive Hindlimb Ataxia

9. Which forelimb reflex does not require brain input and does not indicate pain?

A. Flexor/Withdrawal reflex

B. Biceps reflex

C. Extensor reflex

D. Triceps reflex

10. An older German Shepherd presents with a non-painful, slowly progressive hind limb deficit and reflexes that are normal to hyperactive. What is the most likely diagnosis?

A. Intervertebral disc disease

B. Meningioma

C. Discospondylitis

D. Degenerative myelopathy

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Answers

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1. D
2. C
3. A
4. A
5. A
6. C
7. A
8. D
9. A
10. D

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Explanations

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1. If a dog had an exaggerated patellar reflex, what type of lesion would this indicate?

A. LMN lesion

B. Peripheral neuropathy

C. Central nervous system disease

D. UMN lesion

Hyperreflexia signals an upper motor neuron lesion. The patellar reflex is a simple spinal reflex mediated by the femoral nerve (primarily L4–L6). Descending motor pathways from the brain normally dampen this reflex. When a lesion is in the central nervous system above the reflex arc, this inhibitory input is lost, so the reflex becomes exaggerated. In contrast, lesions of the reflex arc itself (lower motor neuron or peripheral neuropathy) typically weaken or abolish reflexes. Therefore, an exaggerated patellar reflex best fits an upper motor neuron lesion, i.e., central nervous system involvement.

2. Which antiseizure medication would you choose for a patient with decreased liver function?

A. Diazepam

B. Potassium Bromide

C. Levetiracetam

D. Phenobarbital

In liver dysfunction, you want antiseizure drugs that don't rely on the liver for clearance and that don't add to hepatic burden. Levetiracetam fits this well because it is not significantly metabolized by the liver; it is largely eliminated unchanged by the kidneys. This means liver disease has minimal impact on its clearance, and it tends to have fewer drug interactions and less risk of worsening hepatic encephalopathy compared with many other options. Dosing can be adjusted for renal function rather than hepatic impairment, making it a safer and more predictable choice when the liver is compromised. Diazepam and phenobarbital, on the other hand, depend heavily on hepatic metabolism and have active metabolites that can accumulate in liver dysfunction, increasing sedation and the potential for hepatic encephalopathy. Phenobarbital also induces liver enzymes, which can complicate treatment with other drugs. Potassium bromide is not metabolized by the liver, but it has a very long and variable half-life and potential toxicity (bromism); it's slower to titrate and less favorable in modern practice, especially when liver disease is a concern.

3. Central vestibular disease presents with proprioceptive deficits, altered mentation, and vertical nystagmus.

A. Central vestibular disease

B. Peripheral vestibular disease

C. Inner ear infection

D. Cerebellar disease

Vertical nystagmus is a hallmark of central nervous system involvement in the vestibular system, because the central pathways controlling eye movements can produce vertical components. When you also have proprioceptive deficits and altered mentation, that points to a CNS lesion affecting the brainstem or forebrain connections, not just the peripheral vestibular apparatus. Peripheral vestibular disease typically causes horizontal or rotatory nystagmus with the fast phase away from the affected side and usually preserves proprioception and mentation. An inner ear infection is a peripheral cause and would present with similar peripheral signs without the CNS-level changes. Cerebellar disease can cause ataxia and some vestibular signs, but proprioceptive deficits and altered mentation are more suggestive of central involvement, whereas cerebellar signs alone wouldn't explain the CNS signs as well.

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4. Which of the following is an example of a central vestibular disease cause?

A. Meningoencephalitis

B. Hypothyroidism

C. Otitis media/interna

D. Metronidazole toxicity

Central vestibular disease comes from lesions within the brainstem or cerebellum, affecting the brain's vestibular nuclei and pathways. Meningoencephalitis is a disease of the brain and meninges, so it can directly involve those vestibular centers and produce central vestibular signs. Clinically, central involvement may manifest with vertical nystagmus and other brainstem or cerebellar signs, as well as potential mental-status changes or cranial nerve deficits. Otitis media/interna affects the peripheral vestibular apparatus in the inner ear, so it produces peripheral vestibular signs such as horizontal or rotary nystagmus that is not purely gaze-evoked, a head tilt toward the affected side, spinning or ataxia, and usually preserved mentation. Hypothyroidism is a systemic/metabolic disorder and does not classically cause a central vestibular syndrome. Metronidazole toxicity can cause CNS signs including vestibular abnormalities, but it is a toxin rather than a disease process of the CNS itself; the example that best fits a central brain disease affecting vestibular function is meningoencephalitis.

5. What is the most reliable forelimb reflex test?

A. Flexor/Withdrawal reflex

B. Biceps reflex

C. Triceps reflex

D. Extensor carpi radialis reflex

The most reliable forelimb reflex test is the flexor withdrawal (flexor/withdrawal) reflex. This reflex is elicited by a noxious stimulus to the paw and produces a rapid, constitutive pulling away of the limb through a polysynaptic arc that involves several spinal cord segments and multiple flexor muscles. Because it relies on sensory input from the paw and motor output to several limb flexors, it provides a robust readout of the integrity of both sensory pathways and the corresponding motor pathways across multiple cervical segments. It tends to be more consistently elicited across animals and various conditions (e.g., mild sedation or minor positioning differences) than a single deep tendon reflex. In contrast, deep tendon reflexes like the biceps, triceps, or extensor carpi radialis rely on precise tendon tapping and a more limited, monosynaptic pathway. Their expression can be variable with limb position, sedation, muscle tone, or local muscle atrophy, making them less reliable as a general forelimb screen. Therefore, the flexor withdrawal reflex offers a broader, more dependable assessment of forelimb spinal and peripheral nerve function.

6. What is the prognosis for cervical IVDD with medical management in ambulatory patients?

A. Excellent prognosis with no recurrence

B. Poor prognosis with high recurrence

C. Good prognosis with about 36% recurrence

D. Uncertain prognosis

The main idea is that dogs with cervical IVDD treated medically and still ambulatory tend to do well overall, but the condition often recurs. Medical management can control pain and inflammation and allow recovery, so the short-term outlook is good. However, this disease can flare again, and about one-third of ambulatory patients experience recurrence or relapse over time. That's why the best choice is a good prognosis with a moderate recurrence rate (around 36%). If signs worsen or recur, escalation to surgical evaluation may be considered.

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7. For idiopathic vestibular disease, which statement is true?

A. Signs stabilize in 2-3 days and resolve in 2-3 weeks; symptomatic treatment with diazepam or Cerenia

B. It requires antibiotics immediately

C. It progresses rapidly with seizures

D. It is caused by otitis externa

Idiopathic vestibular disease is a self-limiting peripheral vestibular syndrome in dogs, where sudden onset of head tilt and other vestibular signs is followed by a gradual recovery with supportive care. The key point is the typical time course: signs tend to stabilize within 2–3 days and animals commonly achieve full or near-full resolution within 2–3 weeks. Treatment is supportive and aimed at comfort and preventing dehydration, with antiemetics such as maropitant (Cerenia) to control vomiting, and, if needed, a short course of a mild sedative like diazepam to reduce distress from vertigo. Antibiotics are not routinely required because there is no infectious process driving the syndrome unless there is concurrent ear disease or another infection. Rapid progression or seizures would suggest a different, likely central, cause rather than idiopathic vestibular disease. Otitis externa alone does not explain idiopathic vestibular disease, and if ear disease were the cause, management would target the ear pathology rather than labeling the condition idiopathic.

8. Which statement about Feline Ischemic Encephalopathy is NOT described in the materials?

A. Acute Forebrain Signs

B. Migrating Brain Larvae

C. Vascular Compromise

D. Chronic Progressive Hindlimb Ataxia

Feline Ischemic Encephalopathy is an acute cerebrovascular event that causes sudden forebrain dysfunction due to vascular compromise. The typical picture is abrupt onset of forebrain signs—rapid changes in mentation, circling or focal deficits, and sometimes seizures—directly linked to an acute loss of blood flow in the forebrain. A chronic progressive hindlimb ataxia, on the other hand, points to a degenerative or spinal/cerebellar process rather than an acute forebrain vascular event, so it wouldn't be described as a feature of FIE. The other stated features (acute forebrain signs and vascular compromise) fit the condition, whereas progressive hindlimb ataxia does not.

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9. Which forelimb reflex does not require brain input and does not indicate pain?

A. Flexor/Withdrawal reflex

B. Biceps reflex

C. Extensor reflex

D. Triceps reflex

Forelimb reflexes can be produced by circuits inside the spinal cord without any input from the brain. The flexor/withdrawal reflex is a multisynaptic spinal reflex that triggers rapid flexion of the limb in response to a stimulus, and it can occur even when higher brain centers are not involved. This reflex acts as a protective withdrawal from contact or potential harm, and the action happens at the level of the spinal cord, so it does not require brain input. Importantly, while it can be triggered by noxious stimuli, the reflex itself is a motor response and does not by itself prove that the animal consciously feels pain in the brain. The other choices are deep tendon/stretch reflexes (such as the responses tested at the biceps and triceps). These are primarily about the integrity of the spinal stretch reflex arc and muscle–tendon–nerve connections; they indicate hardware function of the spinal arc rather than a withdrawal from harmful stimuli. They can occur without brain input as well, but they do not embody the protective withdrawal response, which is why the withdrawal reflex is the best fit for the stated criteria.

10. An older German Shepherd presents with a non-painful, slowly progressive hind limb deficit and reflexes that are normal to hyperactive. What is the most likely diagnosis?

A. Intervertebral disc disease

B. Meningioma

C. Discospondylitis

D. Degenerative myelopathy

Late-onset, non-painful hindlimb weakness in an older German Shepherd with normal to hyperactive hindlimb reflexes points to degenerative myelopathy. This is a progressive neurodegenerative disease of the spinal cord white matter that commonly affects large to giant breeds and presents after several years of age. The signs come from upper motor neuron–type dysfunction in the hind limbs, so reflexes are often preserved or even brisk early on, and there is little to no spinal pain since there isn't an acute compressive process. This combination of breed, age, non-painful progression, and hindlimb-dominant deficits is classic for degenerative myelopathy. By contrast, intervertebral disc disease typically causes acute or painful onset with spinal pain on examination, discospondylitis usually presents with systemic signs and vertebral/painful spine, and meningioma can cause slow progression but often involves additional focal signs and pain depending on location. So the most likely diagnosis is degenerative myelopathy.

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Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

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We wish you the very best on your exam journey. You've got this!

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