

MSK Individual Readiness Assurance Test (iRAT) Practice Test (Sample)

Study Guide



Everything you need from our exam experts!

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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.

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!

Questions

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- 1. Which statement best describes when surgical treatment for OCD is preferred over conservative management in canine patients?**
 - A. Surgery is recommended for dogs older than 6 months showing lameness or radiographic abnormalities.**
 - B. Conservative management is the preferred initial approach for all cases.**
 - C. Surgery should be avoided in dogs over 6 months.**
 - D. Conservative management is never beneficial.**

- 2. What is the primary function of an ionophore in ruminant nutrition?**
 - A. A lipid-soluble compound that selectively transports ions across cell membranes to increase growth rates by manipulating rumen microbes and controlling coccidian parasitism**
 - B. An orally administered toxin used to treat parasitic infections**
 - C. A protein that forms ion channels to block ion movement**
 - D. A carbohydrate used as a feed additive to boost energy**

- 3. In IMPA, which statement best describes primary IMPA?**
 - A. A definite bacterial infection**
 - B. A known autoimmune trigger**
 - C. Not identified as inciting cause**
 - D. A recent trauma**

- 4. In horses, OCD lesions are more commonly found in which joints?**
 - A. In the femorotibial or tibiotarsal joints.**
 - B. In the shoulder joint.**
 - C. In the carpus.**
 - D. In the metacarpophalangeal joint.**

- 5. What imaging modality is preferred for the initial evaluation of the suspensory ligament?**
 - A. Radiographs**
 - B. Ultrasound**
 - C. MRI**
 - D. CT**

- 6. Which dietary modification is supported by evidence to lower the risk of osteochondrosis?**
- A. Copper deficiency**
 - B. Vitamin D restriction**
 - C. Copper supplementation to avoid deficiency**
 - D. Excess calcium**
- 7. What can cause increases in serum Alkaline Phosphatase (ALP) concentration?**
- A. Decreased hepatic clearance due to kidney disease.**
 - B. ALP is unaffected by corticosteroids.**
 - C. Increased production induced by corticosteroids and bone growth.**
 - D. ALP increases only with liver disease.**
- 8. Which imaging modality is best for differentiating erosive from non-erosive IMPA?**
- A. Carpal radiographs**
 - B. MRI**
 - C. Ultrasound**
 - D. CT**
- 9. Which tumor type accounts for the majority of canine primary bone tumors?**
- A. Osteosarcoma**
 - B. Chondrosarcoma**
 - C. Fibrosarcoma**
 - D. Ewing Sarcoma**
- 10. Which imaging modality is described as the best method for identifying rib fractures in foals?**
- A. Radiography**
 - B. CT**
 - C. Ultrasonography**
 - D. MRI**

Answers

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

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Explanations

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1. Which statement best describes when surgical treatment for OCD is preferred over conservative management in canine patients?

- A. Surgery is recommended for dogs older than 6 months showing lameness or radiographic abnormalities.**
- B. Conservative management is the preferred initial approach for all cases.**
- C. Surgery should be avoided in dogs over 6 months.**
- D. Conservative management is never beneficial.**

When to operate in canine OCD hinges on the dog's age and clinical signs. After about six months of age, if a dog is lame or there are clear radiographic abnormalities, the lesion is unlikely to heal adequately with rest and anti-inflammatory care alone. Surgery is preferred because it directly addresses the problem—removing or stabilizing the loose cartilage fragment and smoothing the joint surface—to relieve pain and restore function. In very young dogs with small, non-displaced lesions, conservative management may be considered, but once signs and imaging abnormalities are present after six months, nonoperative treatment is unlikely to provide lasting improvement. The other statements either overgeneralize conservative management or imply surgery should always be avoided or never beneficial, which isn't accurate.

2. What is the primary function of an ionophore in ruminant nutrition?

- A. A lipid-soluble compound that selectively transports ions across cell membranes to increase growth rates by manipulating rumen microbes and controlling coccidian parasitism**
- B. An orally administered toxin used to treat parasitic infections**
- C. A protein that forms ion channels to block ion movement**
- D. A carbohydrate used as a feed additive to boost energy**

Ionophores are lipid-soluble compounds that act as shuttles for ions across microbial cell membranes in the rumen. By transporting cations, they selectively alter the metabolism and growth of rumen microbes—especially Gram-positive bacteria—shifting fermentation toward increased propionate production. Propionate is a key glucose precursor, so this shift improves the animal's energy efficiency and often enhances growth or production on typical ruminant diets. While they can have antiparasitic effects in some contexts, their primary nutritional role is modifying rumen fermentation to boost energy capture from feed. The other options don't fit because ionophores are not toxins used systemically, nor are they proteins that form channels to block ion movement, nor are they carbohydrates added for energy.

3. In IMPA, which statement best describes primary IMPA?

- A. A definite bacterial infection
- B. A known autoimmune trigger
- C. Not identified as inciting cause**
- D. A recent trauma

Primary IMPA refers to an immune-mediated arthritis where no inciting trigger is found after a thorough evaluation. In this situation, the inflammation is driven by the immune system, but there isn't a definite cause such as a bacterial infection, an autoimmune trigger, or recent trauma identified. Clinically you'd often find neutrophilic synovial fluid, and septic arthritis would be ruled out with negative cultures. If no infection, no systemic disease, and no other trigger are detected, it's classified as primary IMPA.

4. In horses, OCD lesions are more commonly found in which joints?

- A. In the femorotibial or tibiotarsal joints.**
- B. In the shoulder joint.
- C. In the carpus.
- D. In the metacarpophalangeal joint.

OCD lesions in horses arise from a disruption of normal endochondral ossification in developing cartilage, and they most commonly show up in joints that bear the heaviest loads as the horse grows. The hind limb joints—the femorotibial (stifle) and the tibiotarsal (hock) joints—are subjected to substantial compressive and shear forces during growth and exercise. That intense, repetitive stress makes the articular cartilage and underlying subchondral bone more vulnerable to the OC process, so lesions are seen there more often than in other joints. In contrast, joints like the shoulder, carpus, or fetlock experience relatively different loading patterns or lower overall stress during development, so OCD lesions are less common in them.

5. What imaging modality is preferred for the initial evaluation of the suspensory ligament?

- A. Radiographs
- B. Ultrasound**
- C. MRI
- D. CT

Ultrasound is the best initial imaging for evaluating a suspensory ligament because it directly visualizes soft-tissue structures along the ligament's entire course, allowing assessment of fiber integrity, thickening, and edema in real time. It can detect fiber disruption, hypoechoic or heterogeneous areas indicating tears, and nearby fluid or sheath involvement, all in a dynamic, radiation-free exam that's quick and easily repeatable to monitor healing. Radiographs mainly show bone and are not sensitive for ligament injuries. MRI offers superior soft-tissue detail but is more costly and less available for initial evaluation, while CT is oriented more toward bone assessment and rarely used first for ligament injuries.

6. Which dietary modification is supported by evidence to lower the risk of osteochondrosis?

- A. Copper deficiency**
- B. Vitamin D restriction**
- C. Copper supplementation to avoid deficiency**
- D. Excess calcium**

Limiting vitamin D intake during growth can influence how the bones and joints form, particularly through its role in calcium and phosphate balance and bone mineralization. In rapidly growing tissues, high levels of vitamin D can accelerate endochondral ossification at the growth plates, which, in some cases, contributes to disturbances in cartilage and subchondral bone formation that underlie osteochondrosis. By restricting vitamin D, the mineralization process progresses more gradually, reducing the chance of focal growth plate disturbances that can lead to osteochondrosis. Copper status and calcium levels affect bone and connective tissue health, but the evidence cited here points to vitamin D restriction as the dietary modification that lowers risk. Copper deficiency tends to weaken connective tissues, and excess calcium intake by itself hasn't shown the same protective effect against osteochondrosis as careful modulation of vitamin D.

7. What can cause increases in serum Alkaline Phosphatase (ALP) concentration?

- A. Decreased hepatic clearance due to kidney disease.**
- B. ALP is unaffected by corticosteroids.**
- C. Increased production induced by corticosteroids and bone growth.**
- D. ALP increases only with liver disease.**

Serum alkaline phosphatase rises when production by ALP-producing tissues increases, especially in bone. Bone-forming cells (osteoblasts) make more ALP during periods of rapid bone growth, remodeling, or healing. Corticosteroids can stimulate osteoblast activity, boosting ALP production in bone. So the combination of increased bone growth and corticosteroid exposure leads to higher ALP levels. This explains why ALP can rise in growing individuals and with corticosteroid use, independent of liver disease or changes in clearance. The other ideas don't fit as well: kidney disease isn't a primary driver of ALP via hepatic clearance, and saying corticosteroids don't affect ALP contradicts what happens at the tissue level. ALP can be elevated in liver disease as well, but the best-reasoned mechanism for the stated scenario is increased production in bone from growth and corticosteroids.

8. Which imaging modality is best for differentiating erosive from non-erosive IMPA?

- A. Carpal radiographs**
- B. MRI**
- C. Ultrasound**
- D. CT**

Erosive inflammatory polyarthritis shows focal bone loss at the joint margins, and the carpal region is a common site where these erosions become evident. Carpal radiographs are the best choice because they directly and quickly reveal marginal bone erosions, which distinguish erosive disease from non-erosive forms. While MRI and ultrasound excel at detecting soft-tissue changes and early or subtle erosions, and CT can show bone detail with high sensitivity, plain radiographs of the carpus are the most practical, accessible, and reliable way to confirm the presence of bone erosions and differentiate the two patterns.

9. Which tumor type accounts for the majority of canine primary bone tumors?

- A. Osteosarcoma**
- B. Chondrosarcoma**
- C. Fibrosarcoma**
- D. Ewing Sarcoma**

Dog primary bone tumors are most commonly osteosarcoma. This tumor predominates in large and giant breeds and tends to affect the long bones near the growth plates, where it often causes aggressive bone destruction and a painful presentation. Osteosarcoma is characterized by malignant osteoblasts producing osteoid; its behavior is notably aggressive with a high tendency to metastasize to the lungs early in the course. Other bone tumors like chondrosarcoma, fibrosarcoma, and Ewing sarcoma do occur in dogs but are much less common, so osteosarcoma accounts for the majority of canine primary bone tumors.

10. Which imaging modality is described as the best method for identifying rib fractures in foals?

A. Radiography

B. CT

C. Ultrasonography

D. MRI

In foals, rib fractures are most effectively identified with ultrasound because their ribs are still relatively cartilaginous at birth, making many fractures hard to see on radiographs where overlapping structures and incomplete ossification obscure the fracture line. Ultrasonography allows direct visualization of the rib cortex for disruptions and irregularities, as well as adjacent soft-tissue changes and periosteal reactions that indicate a fracture. It's also quick, portable, and free of radiation, so you can perform a rapid bedside assessment and simultaneously evaluate the pleural space for complications like pneumothorax or pleural effusion, which often accompany thoracic trauma. While CT can provide detailed three-dimensional information and MRI has its uses, CT access is limited in many settings and MRI is not practical for acute rib injuries. For initial investigation in foals, ultrasound offers the best balance of sensitivity for immature bone, safety, and practicality.

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:

<https://mskirat.examzify.com>

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

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