

JUNIOR OFFICER SURFACE MATERIAL READINESS COURSE PRACTICE TEST (SAMPLE) STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE**

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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 deviation corresponds to Pending software updates?**
 - A. Adherence would damage equipment or injure personnel
 - B. EOSS does not match configuration
 - C. Component is inoperative or a TYCOM DFS is approved
 - D. Pending software updates
- 2. Which substance is a concern for double barrier protection under the O2 category?**
 - A. O2
 - B. CO2
 - C. N2
 - D. Ar
- 3. Which standard covers both seepage and weepage tolerances?**
 - A. NSTM 233
 - B. NSTM 600
 - C. NSTM 231
 - D. NSTM 503
- 4. Which topic corresponds to 5100.19e B2?**
 - A. Heat stress
 - B. Hazmat
 - C. Hearing conservation
 - D. Hearing protection
- 5. Observing a visible sheen on the water surface indicates which category?**
 - A. GT running leakage
 - B. GT seepage
 - C. Weepage
 - D. Zero leakage
- 6. Which FPB category applies to a system operating at 350 V?**
 - A. FPB 30 - 700 V
 - B. FPB 700-5,000 V
 - C. FPB 5,000 V or greater
 - D. FPB Not specified

- 7. Wicking is the process by which what occurs?**
- A. Fuel Absorbed Into A Material
 - B. Fuel Evaporated From A Surface
 - C. Fuel Mixes With Air
 - D. Fuel Cools A Surface
- 8. If voltage increases across a resistor with constant resistance, what happens to the current?**
- A. Current increases
 - B. Current decreases
 - C. Current stays the same
 - D. Current first increases then decreases
- 9. Which property threshold is associated with double barrier protection for flammability?**
- A. Flash point <200 degrees
 - B. Flash point >300 degrees
 - C. Boiling point 100 degrees
 - D. Melting point 0 degrees
- 10. A hose is considered critical if it is what?**
- A. Mission essential
 - B. Relates to safety
 - C. Flammable systems above 20 psi
 - D. CEAS

Answers

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

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Explanations

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1. Which deviation corresponds to Pending software updates?

- A. Adherence would damage equipment or injure personnel
- B. EOSS does not match configuration
- C. Component is inoperative or a TYCOM DFS is approved
- D. Pending software updates**

This item focuses on recognizing a deviation that reflects software update status. Pending software updates means the system hasn't been updated to the current software baseline yet; the updates are planned or awaiting installation and, while not ideal, don't indicate a hardware fault or a configuration mismatch. Recording this as a deviation flags that the baseline isn't fully current and requires follow-up to apply the updates and re-evaluate. The other scenarios describe different kinds of deficiencies—safety hazards, configuration mismatches, or an inoperative component with approval to defer—so they don't fit the situation described by pending software updates.

2. Which substance is a concern for double barrier protection under the O2 category?

- A. O2**
- B. CO2
- C. N2
- D. Ar

Oxygen is the substance of concern in the O2 category because double barrier protection is used to keep oxygen from entering and oxidizing or degrading sensitive items. The goal is to maintain a low O2 environment inside packaging or storage, since oxygen can cause spoilage, corrosion, or other oxidative damage. The other gases listed—carbon dioxide, nitrogen, and argon—are not the contaminants this category is designed to guard against; nitrogen and argon are typically used to purge or create an inert environment, while carbon dioxide may be used for specific products, but the central issue here is preventing O2 ingress.

3. Which standard covers both seepage and weepage tolerances?

- A. NSTM 233**
- B. NSTM 600
- C. NSTM 231
- D. NSTM 503

Seepage and weepage tolerances are about how much moisture intrusion is allowed through joints, seams, and penetrations without compromising the space or structure. The standard that combines guidance for both seepage and weepage, including the limits, testing methods, and acceptance criteria, is NSTM 233. It provides the specific tolerances and inspection procedures that ensure moisture intrusion stays within safe, manageable levels, which helps prevent corrosion and other moisture-related damage. The other standards focus on different topics or systems and don't provide the same paired guidance for seepage and weepage tolerances.

4. Which topic corresponds to 5100.19e B2?

- A. Heat stress
- B. Hazmat
- C. Hearing conservation
- D. Hearing protection

Designations in 5100.19e are used to categorize safety topics, with B2 specifically covering heat stress. This makes heat stress the best match because the B2 block is designed to address conditions that cause heat-related illness, how to recognize risk factors and symptoms, and the steps to prevent and respond to heat stress (hydration, acclimatization, scheduled rest, shaded cooling, appropriate clothing, and monitoring workers in hot environments). The other topics—hazmat deals with hazardous materials handling, while hearing conservation and hearing protection focus on noise exposure and protecting hearing—fall under different sections within the safety program. So 5100.19e B2 points you to heat-stress content.

5. Observing a visible sheen on the water surface indicates which category?

- A. GT running leakage
- B. GT seepage
- C. Weepage
- D. Zero leakage

A small, persistent release of hydrocarbons into the water creates a thin film or sheen on the surface. This is the hallmark of a weepage leak—fuel or oil slowly oozing through seals, fittings, or tank penetrations and making its way into the water. The sheen indicates that leakage is present, even if the rate is low, which is why this category fits best. If the turbine were actively leaking during operation, you'd expect more obvious evidence like dripping or spraying, not just a surface film. Zero leakage would show no film at all, and GT seepage implies a different leakage behavior that doesn't necessarily produce a surface sheen on the water.

6. Which FPB category applies to a system operating at 350 V?

- A. FPB 30 - 700 V
- B. FPB 700-5,000 V
- C. FPB 5,000 V or greater
- D. FPB Not specified

FPB categories are defined by operating voltage ranges. The ranges are 30 to 700 V, 700 to 5,000 V, and 5,000 V or greater, with the bounds inclusive. A system at 350 V falls within the 30–700 V range, so it is classified in that FPB category. This grouping guides the specific safety protections and procedures required for that voltage level. If the voltage were higher than 700 V, the next category would apply; if it were below 30 V, it would fall outside these FPB ranges.

7. Wicking is the process by which what occurs?

- A. Fuel Absorbed Into A Material**
- B. Fuel Evaporated From A Surface
- C. Fuel Mixes With Air
- D. Fuel Cools A Surface

Wicking is about a liquid being drawn into and held by a porous material through capillary action. When fuel contacts a fabric or other absorbent material, adhesive forces between the fuel and the material pull the liquid into the pores, saturating the material and spreading the fuel beyond the original spot. This is why fuel-soaked rags or wicks can carry fuel away from the spill area and potentially spread a fire—that movement into the material is the essence of wicking. This differs from evaporation, where the liquid turns into vapor and leaves the surface, or from mixing with air, which describes the vapor getting into the air rather than being absorbed by the material. It also isn't about cooling a surface, which would involve heat transfer rather than liquid movement into a solid.

8. If voltage increases across a resistor with constant resistance, what happens to the current?

- A. Current increases**
- B. Current decreases
- C. Current stays the same
- D. Current first increases then decreases

Current through a resistor follows Ohm's law: $I = V / R$. When the resistance is constant, the current changes in direct proportion to the voltage. So increasing the voltage across the same resistor increases the current, because doubling the voltage doubles the current. For example, with a fixed 10-ohm resistor, raising the voltage from 5 V to 10 V makes the current go from 0.5 A to 1 A. Since the resistance isn't changing, there's no scenario where the current stays the same or decreases; the current simply increases with voltage.

9. Which property threshold is associated with double barrier protection for flammability?

- A. Flash point <200 degrees**
- B. Flash point >300 degrees
- C. Boiling point 100 degrees
- D. Melting point 0 degrees

Double barrier protection targets liquids that can form ignitable vapors at relatively low temperatures. The key measure here is the flash point—the lowest temperature at which enough vapor can ignite in air. If the flash point is below 200 degrees, the substance can release flammable vapors at temperatures commonly encountered in storage or use, so extra containment and separation are required to prevent ignition. That lower threshold is what triggers the need for a double barrier to keep vapors from reaching ignition sources or leaking out. In contrast, a flash point well above 300 degrees indicates much lower flammability risk under normal conditions, so double barriers aren't typically necessary. Boiling and melting points aren't the primary indicators for this protection approach, since they don't directly reflect the tendency to form flammable vapors at usable temperatures.

10. A hose is considered critical if it is what?

- A. Mission essential**
- B. Relates to safety
- C. Flammable systems above 20 psi
- D. CEAS

The item's criticality is based on whether its absence would prevent completing the mission. A hose is considered critical when it is mission essential—without it, the ship cannot perform its assigned tasks or operations. This prioritizes items that directly enable the mission, ensuring they're available and ready. Relating to safety, while safety items are important, that attribute alone doesn't define criticality in this context. The other options describe specific attributes or labels that don't determine whether the item is essential to the mission, so they aren't the criterion for calling a hose critical.

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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:

<https://jrofficersurfacematreadiness.examzify.com>

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

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