

USCG Marine Science Technician (MST) Service Wide Exam (SWE) Practice (Sample)

Study Guide



Everything you need from our exam experts!

This is a sample study guide. To access the full version with hundreds of questions,

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Table of Contents

Copyright	1
Table of Contents	2
Introduction	3
How to Use This Guide	4
Questions	6
Answers	9
Explanations	11
Next Steps	17

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. Don't worry about getting everything right, 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, and take breaks to retain information better.

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.

7. Use Other Tools

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

- 1. What parameters can you use to search for open billets in Direct Access?**
 - A. Location and rating**
 - B. Recruitment type, job family, and grade**
 - C. Job category and promotion status**
 - D. Experience level and time in service**
- 2. What level of PPE should be worn with unknown atmospheric hazards?**
 - A. Level A**
 - B. Level B**
 - C. Level C**
 - D. Level D**
- 3. What is defined as a portable froth applicator?**
 - A. A foam concentration chamber**
 - B. An apparatus for making fire retardant foam**
 - C. An inductor type froth nozzle and portable tank containing at least 4.5 gallons of froth-making liquid and 1 spare tank**
 - D. A deck mounted firefighting system**
- 4. What scale is used to measure tornado damage?**
 - A. Beaufort Scale**
 - B. Fujita Scale**
 - C. Saffir-Simpson Scale**
 - D. Richter Scale**
- 5. What is the validity period for an interim ISM-DOC?**
 - A. 3 months**
 - B. 6 months**
 - C. 12 months**
 - D. 18 months**

- 6. How often should a visual inspection be conducted on LNG facilities?**
- A. Every 6 months**
 - B. Once per calendar year, not to exceed 15 months**
 - C. Every 2 years**
 - D. Every 5 years**
- 7. Which component of a pump is allowed to leak in a facility's transfer area?**
- A. Valves**
 - B. Packing glands**
 - C. Seals**
 - D. Filters**
- 8. How many hours before entry should the emergency steering be tested?**
- A. 12 hours**
 - B. 24 hours**
 - C. 36 hours**
 - D. 48 hours**
- 9. Which body has the authority to enforce the requirements of COFR for vessels?**
- A. United States Environmental Protection Agency**
 - B. U.S. Coast Guard**
 - C. Nuclear Regulatory Commission**
 - D. Department of Transportation**
- 10. What does a Notice of Federal Interest (NOFA) pertain to in terms of spill response?**
- A. Restriction on fishing**
 - B. Complete prohibition of access to affected areas**
 - C. Total or partial control of a spill**
 - D. Liability establishment for damages**

Answers

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

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Explanations

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1. What parameters can you use to search for open billets in Direct Access?

- A. Location and rating**
- B. Recruitment type, job family, and grade**
- C. Job category and promotion status**
- D. Experience level and time in service**

The correct choice highlights the parameters that are essential for effectively navigating the Direct Access system to find open billets. In this context, recruitment type, job family, and grade provide a comprehensive framework for searching open positions. Recruitment type specifies whether the position is part of active duty, reserve, or another category, allowing a focused search based on the applicant's employment type. Job family helps identify positions relevant to specific specialties or areas of training, while grade indicates the level of responsibility and pay associated with a billet. Together, these criteria streamline the search process and help ensure that applicants find opportunities that best match their qualifications and career goals. The other choices encompass relevant concepts but lack the specific combinations necessary for an effective search in Direct Access. While location and rating may seem vital, they do not capture the full scope of available parameters. Job category and promotion status, along with experience level and time in service, might be relevant in different contexts but do not provide the targeted filters for an efficient search in the Direct Access system.

2. What level of PPE should be worn with unknown atmospheric hazards?

- A. Level A**
- B. Level B**
- C. Level C**
- D. Level D**

When dealing with unknown atmospheric hazards, the appropriate personal protective equipment (PPE) is critical for ensuring the safety of personnel. Level A PPE is designed for the highest level of protection against vapors, gases, mists, and particles, and is appropriate when the substances and their hazards are unknown or when there is a possibility of exposure to life-threatening atmospheres. This level includes a fully encapsulated suit, a self-contained breathing apparatus (SCBA), and other protective gear. Level B PPE, while also providing a high level of protection, is used instead when the presence of unknown atmospheric hazards is suspected but has not been confirmed. It consists of a similar SCBA and protective clothing but does not require full encapsulation, offering some flexibility and comfort in environments where limited amounts of chemical exposure are probable rather than certain. Level C PPE is used when the identity and concentration of atmospheric hazards are known, and the criteria for half-mask respirators and skin protection are met. Meanwhile, Level D PPE is the lowest form, appropriate for minimal exposure risks and not for use when there are any unknown hazards. In the context of managing unknown atmospheric hazards, Level B provides a balance of protection and practicality, allowing for safe operations while further assessments are made to determine

3. What is defined as a portable froth applicator?

- A. A foam concentration chamber
- B. An apparatus for making fire retardant foam
- C. An inductor type froth nozzle and portable tank containing at least 4.5 gallons of froth-making liquid and 1 spare tank**
- D. A deck mounted firefighting system

The definition of a portable froth applicator is specifically described as an inductor type froth nozzle accompanied by a portable tank that holds at least 4.5 gallons of froth-making liquid, along with an additional spare tank. This apparatus is designed to generate and apply firefighting foam effectively, allowing for versatile and rapid deployment in firefighting scenarios. The emphasis on the inductor type nozzle highlights its critical function in mixing air, water, and the froth-making liquid to produce the foam. The capacity requirement of 4.5 gallons underscores the need for sufficient volume to tackle different fire conditions, while the presence of a spare tank ensures that the applicator remains operational for extended periods without the need for immediate replenishment. This definition directly aligns with the functions and operational parameters of portable froth applicators as utilized in firefighting, particularly in marine environments. The choice focuses on the specific components, design, and operational capacity that characterize a genuine portable froth applicator, setting it apart from other firefighting systems or equipment that may not possess these particular features.

4. What scale is used to measure tornado damage?

- A. Beaufort Scale
- B. Fujita Scale**
- C. Saffir-Simpson Scale
- D. Richter Scale

The Fujita Scale is the correct measure for assessing tornado damage. This scale, developed by Dr. Tetsuya Fujita in 1971, categorizes tornadoes from F0 to F5 based on the damage they cause to buildings and vegetation. Each level of the Fujita Scale corresponds to specific types of damage, which helps officials and scientists estimate the intensity of a tornado based on the destruction observed. For instance, an F0 tornado represents light damage, while an F5 tornado signifies incredible damage, including complete destruction of well-built houses. The Beaufort Scale evaluates wind speed based on observed conditions at sea or on land, making it more appropriate for assessing wind forces rather than tornadoes specifically. The Saffir-Simpson Scale is used for categorizing hurricanes based on sustained wind speeds and their potential for damage to structures, again not applicable for tornadoes. The Richter Scale quantifies the magnitude of earthquakes, thus having no relation to tornado assessment. Each of these scales is designed for different natural phenomena, reinforcing the specialized purpose of the Fujita Scale for tornadoes.

5. What is the validity period for an interim ISM-DOC?

- A. 3 months
- B. 6 months
- C. 12 months**
- D. 18 months

The validity period for an interim International Safety Management Document of Compliance (ISM-DOC) is 12 months. This interim certificate is issued when a new company is in the process of implementing its Safety Management System (SMS) and has not yet completed the full verification process required for the permanent ISM-DOC. The 12-month validity allows the organization to operate under certain conditions while they finalize and demonstrate compliance with the ISM Code. During this period, the company is expected to fully implement their SMS and undergo evaluations to achieve a permanent ISM-DOC. Thus, the 12-month time frame is crucial as it supports companies in transitioning while ensuring that safety standards are being developed and upheld. In contrast, the other options represent shorter or longer periods which do not correspond with the ISM Code's guidelines for the interim document of compliance, as recognized by maritime regulations.

6. How often should a visual inspection be conducted on LNG facilities?

- A. Every 6 months
- B. Once per calendar year, not to exceed 15 months**
- C. Every 2 years
- D. Every 5 years

Regular visual inspections of LNG (Liquefied Natural Gas) facilities are essential for maintaining safety and compliance with regulatory standards. The recommendation to conduct these inspections once per calendar year, not to exceed 15 months, is grounded in ensuring that any potential issues are identified and addressed in a timely manner. This frequency allows for the monitoring of equipment, structures, and systems integral to the safe operation of LNG facilities. Conducting these inspections annually helps in identifying wear and tear, corrosion, or other safety hazards that could affect the integrity and operation of the facility. By not allowing the interval to exceed 15 months, it ensures a proactive approach to maintenance and safety, minimizing risks associated with unexpected failures or incidents. This time frame strikes a balance between operational efficiency and safety oversight, reflecting industry standards meant to mitigate risks inherent in handling LNG, a highly flammable substance.

7. Which component of a pump is allowed to leak in a facility's transfer area?

A. Valves

B. Packing glands

C. Seals

D. Filters

In the context of a facility's transfer area, packing glands are specifically designed to allow for controlled leakage. Packing glands are utilized to create a seal around the rotating shaft of a pump. They achieve this by using a series of packing materials that compress against the shaft as it rotates, which prevents fluid from escaping. However, a small amount of leakage is intentional and acceptable with packing glands; it helps lubricate the packing and prevents it from overheating. This allows for effective operation while also minimizing the risk of damaging the pump. In contrast, valves, seals, and filters are not designed to leak. Seals are intended to maintain a watertight or airtight connection and prevent any fluid migration, while valves are used to control fluid flow without the intention of allowing leaks. Filters are meant to purify the fluid by trapping particulates, and any leakage would compromise their functionality. Thus, the appropriate answer recognizes that packing glands are the only component where controlled leakage is permissible in this scenario.

8. How many hours before entry should the emergency steering be tested?

A. 12 hours

B. 24 hours

C. 36 hours

D. 48 hours

The correct timing for testing emergency steering is set at 48 hours before entry. This timeframe ensures that all systems are thoroughly checked and any potential issues can be addressed well in advance, allowing for a safe operation. Conducting the test 48 hours ahead provides an ample safety margin, giving crew members enough time to resolve any mechanical problems that might arise during the testing of the emergency steering system. By adhering to this procedure, vessels can maximize safety and readiness for their mission or voyage. Other options suggest shorter timeframes which may not provide enough time for troubleshooting or repairs, potentially jeopardizing safety protocols.

9. Which body has the authority to enforce the requirements of COFR for vessels?

- A. United States Environmental Protection Agency**
- B. U.S. Coast Guard**
- C. Nuclear Regulatory Commission**
- D. Department of Transportation**

The U.S. Coast Guard (USCG) has the authority to enforce the requirements of the Certificate of Financial Responsibility (COFR) for vessels. This enforcement is part of the USCG's broader mandates related to marine safety and pollution prevention under various environmental regulations. The COFR is a financial guarantee required to ensure that ship owners can meet liabilities arising from oil spills. By enforcing these requirements, the USCG helps to ensure that vessels operating in U.S. waters are financially responsible for potential environmental damage, thereby protecting marine and coastal ecosystems. The role of the USCG in this area is crucial because they not only oversee compliance but also have the authority to conduct inspections and assess penalties for violations. The emphasis on financial readiness is part of a larger preventative strategy to mitigate the risks associated with maritime operations. Other agencies, such as the Environmental Protection Agency, may have overlapping responsibilities regarding pollution prevention, but they do not enforce COFR directly. Similarly, the Nuclear Regulatory Commission and the Department of Transportation have distinct jurisdictions that do not involve the regulation of financial responsibility for oil spills in maritime contexts. This clarifies why the U.S. Coast Guard is the correct authority in this scenario.

10. What does a Notice of Federal Interest (NOFA) pertain to in terms of spill response?

- A. Restriction on fishing**
- B. Complete prohibition of access to affected areas**
- C. Total or partial control of a spill**
- D. Liability establishment for damages**

A Notice of Federal Interest (NOFA) is relevant during spill response as it signifies that the federal government is taking an active interest in the situation, particularly in managing the spill and its consequences. When a NOFA is issued, it often indicates that the federal government has a degree of control over the response efforts related to the spill. This can include directing how the cleanup should be conducted, coordinating resources, and ensuring compliance with environmental regulations. In the context of spill response, the correct choice reflects the federal authority to take charge of spill management efforts. This is crucial because it involves not just monitoring but also actively participating and coordinating with state and local responders to mitigate the effects of the spill effectively. It highlights the federal government's responsibility in covering the impacts and facilitating an organized response to protect public health and the environment.

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://uscgmstswe.examzify.com>

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