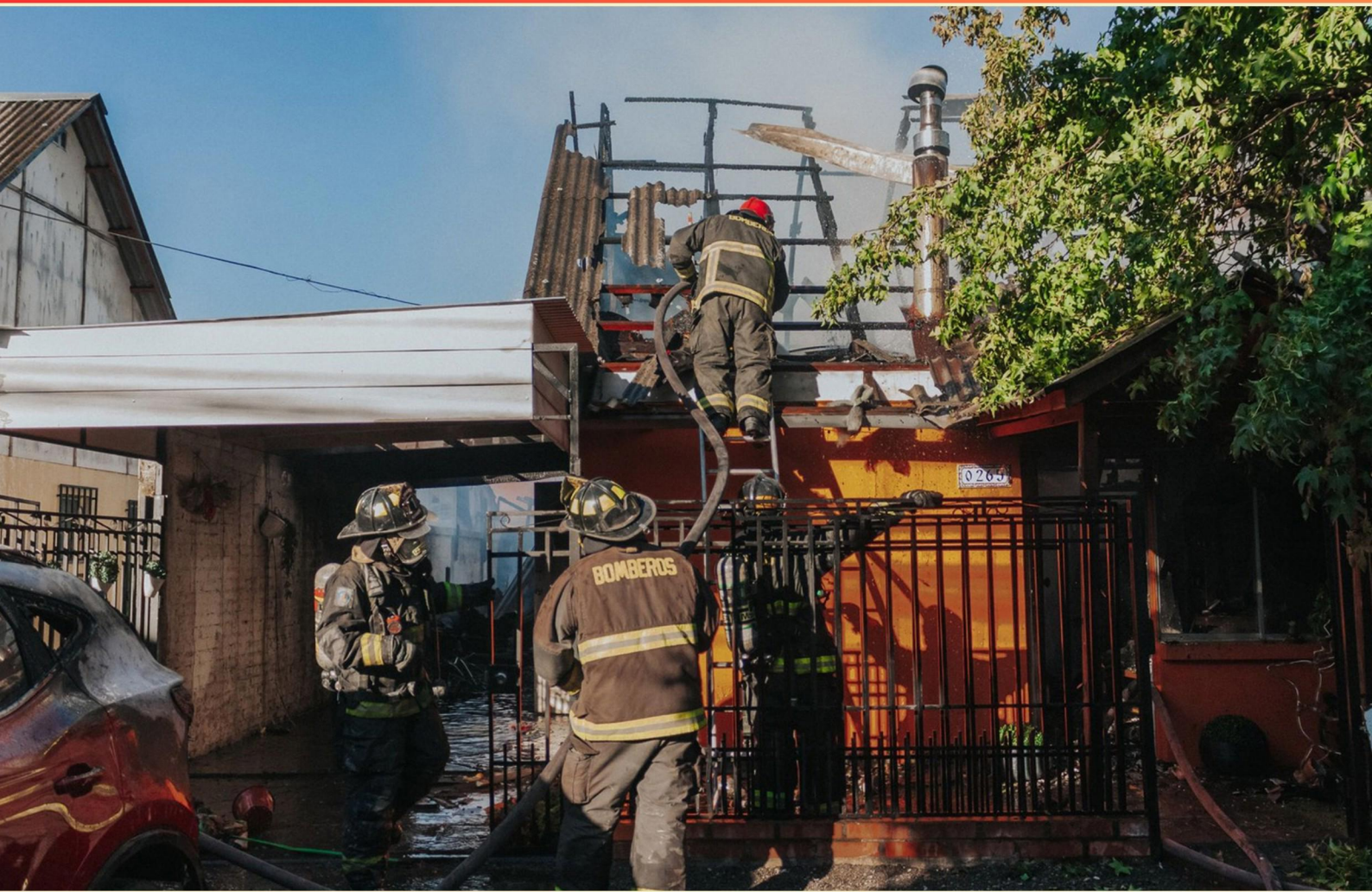


FDNY RESPIRATORY MEDICAL OFFICER (RMO) PRACTICE EXAM (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

**VISIT US ONLINE FOR
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. What is the primary function of a safety head on a compressor?**
 - A. To reduce energy consumption
 - B. Prevents liquid slugging from damaging the valve plate
 - C. Improves refrigeration efficiency
 - D. Enhances system cooling
- 2. What effect does lowering the condensing pressure have in a refrigerant cycle?**
 - A. It decreases the efficiency of the system
 - B. It improves the efficiency of the compressor
 - C. It has no effect on the cycle
 - D. It increases energy consumption
- 3. What should be done when all liquid has been recovered from a refrigeration system prior to an overhaul?**
 - A. Open the system immediately
 - B. Wait until all vapor has been recovered
 - C. Disconnect the power supply
 - D. Perform a pressure test
- 4. What is usually the first indication of a problem when water treatment of the condenser water is not maintained?**
 - A. A decrease in system efficiency
 - B. An increase in compressor head pressure
 - C. A drop in refrigerant levels
 - D. A rise in energy consumption
- 5. What is a potential risk of operating a compressor with low oil levels?**
 - A. Increased refrigerant flow
 - B. Overheating and possible failure
 - C. Enhanced efficiency
 - D. Reduced noise levels

- 6. What characteristic of the indirect refrigerant system contributes to its leak prevention?**
- A. It operates at low pressure
 - B. It uses a refrigerant with a low leak potential
 - C. It has a separate cooling medium
 - D. It requires less maintenance
- 7. What causes the atmospheric valve to open on a steam turbine?**
- A. Low pressure in the steam line
 - B. High temperature in the turbine
 - C. All answers are correct
 - D. Condensation in the turbine
- 8. For which type of refrigerant is FDNY approval required?**
- A. Freon
 - B. Ammonia
 - C. Propane
 - D. R-134a
- 9. What is the responsibility of a B29 CoF Holder?**
- A. Operate the emergency generator
 - B. Inspect the battery system
 - C. Supervise the fire alarm system
 - D. Manage the elevator operations
- 10. What equipment should manifold hoses be equipped with?**
- A. High pressure gauges
 - B. Low loss fittings
 - C. Standard connectors
 - D. Pressure relief valves

Answers

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

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Explanations

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1. What is the primary function of a safety head on a compressor?

- A. To reduce energy consumption
- B. Prevents liquid slugging from damaging the valve plate**
- C. Improves refrigeration efficiency
- D. Enhances system cooling

The primary function of a safety head on a compressor is to prevent liquid slugging from damaging the valve plate. When a compressor operates, it is designed to compress gas; however, if liquid refrigerant enters the compressor instead of vapor, this can lead to liquid slugging. Liquid slugging can cause significant damage to various components, particularly the valve plate, which is responsible for regulating the flow of refrigerant. The safety head helps to manage this by providing a mechanism that prevents liquid refrigerant from entering the compressor during operation or by venting liquid if it does. Understanding this function is crucial for maintaining the integrity and efficiency of the compressor. The prevention of liquid slugging effectively extends the life of the compressor and ensures that it operates correctly under designed conditions. This focus on protecting critical components is why the safety head is essential in compressor design and function.

2. What effect does lowering the condensing pressure have in a refrigerant cycle?

- A. It decreases the efficiency of the system
- B. It improves the efficiency of the compressor**
- C. It has no effect on the cycle
- D. It increases energy consumption

Lowering the condensing pressure in a refrigerant cycle leads to an improvement in the efficiency of the compressor. When the condensing pressure is reduced, the refrigerant is able to condense at a lower temperature. This decreases the workload on the compressor, as it does not have to compress the refrigerant as much to reach the required pressure for the next stage of the cycle. With lower condensing pressure, the refrigerant leaves the condenser and enters the evaporator at a lower saturation temperature, meaning that the compressor can handle vapor at a lower temperature and pressure. This results in a lower specific work input required from the compressor to circulate refrigerant throughout the system. Therefore, the compressor operates more efficiently since it can achieve the desired evaporation temperature with less energy expenditure. In addition, the entire refrigeration cycle can benefit from this lowered condensing pressure, enabling a potentially greater temperature differential between the evaporator and the environment, which can enhance the overall cooling performance. This demonstrates a direct relationship between condensing pressure and the efficiency of the system's components, particularly the compressor.

3. What should be done when all liquid has been recovered from a refrigeration system prior to an overhaul?

- A. Open the system immediately
- B. Wait until all vapor has been recovered**
- C. Disconnect the power supply
- D. Perform a pressure test

Waiting until all vapor has been recovered before opening the refrigeration system is essential for several reasons. First, allowing for the complete recovery of vapor ensures that the system is free from residual refrigerants. This is crucial for safety, as refrigerants can be harmful or toxic when inhaled or when they come into direct contact with skin. Additionally, this practice helps to prevent any potential pressure build-up that could occur if any vapors are left in the system, which could lead to hazardous conditions during the overhaul process. Furthermore, the proper handling of refrigerants is also a key component of environmental safety and regulatory compliance. Ensuring that no vapor remains protects both personnel and the environment from harmful refrigerant emissions. Thus, following this procedure is crucial for maintaining a safe and effective work environment during the overhaul of refrigeration systems.

4. What is usually the first indication of a problem when water treatment of the condenser water is not maintained?

- A. A decrease in system efficiency
- B. An increase in compressor head pressure**
- C. A drop in refrigerant levels
- D. A rise in energy consumption

The first indication of a problem with the water treatment of the condenser water is typically an increase in compressor head pressure. When water treatment is not adequately maintained, it can lead to poor heat exchange within the condenser. This is primarily because untreated water may become excessively contaminated with scale, algae, and corrosion products, which impacts the water's ability to absorb and dissipate heat. As the condenser becomes less efficient at removing heat, the compressor has to work harder to circulate refrigerant through the system, resulting in increased head pressure. Higher compressor head pressure can lead to a range of operational issues, including higher energy consumption and potential system failures if left unchecked. It's crucial to monitor this pressure as it provides a direct correlation to the condition of the condenser and the effectiveness of the water treatment being applied. Understanding this link is fundamental for maintaining HVAC systems effectively, as keeping head pressure within acceptable limits is vital for overall system performance and longevity.

5. What is a potential risk of operating a compressor with low oil levels?

- A. Increased refrigerant flow
- B. Overheating and possible failure**
- C. Enhanced efficiency
- D. Reduced noise levels

Operating a compressor with low oil levels poses a significant risk of overheating and potential failure. Oil plays a crucial role in the lubrication of internal components of the compressor, reducing friction and dissipating heat. When oil levels are insufficient, the compressor cannot maintain adequate lubrication, leading to excessive heat generation due to increased friction among moving parts. This can quickly result in the breakdown of components, system inefficiencies, and ultimately, complete mechanical failure. Thus, maintaining proper oil levels is critical for the integrity and longevity of the compressor's operation.

6. What characteristic of the indirect refrigerant system contributes to its leak prevention?

- A. It operates at low pressure
- B. It uses a refrigerant with a low leak potential
- C. It has a separate cooling medium**
- D. It requires less maintenance

The characteristic of using a separate cooling medium in an indirect refrigerant system plays a significant role in leak prevention. In these systems, the refrigerant does not come into direct contact with the air or fluid that is ultimately being cooled. Instead, the refrigerant transfers heat to a secondary fluid — often water or glycol — which then absorbs the heat and circulates to the place where cooling is needed. This design inherently reduces the risk of refrigerant leaks affecting the environment or the area being cooled. If a leak were to occur in the refrigerant lines, the direct impact on the cooling system's performance is mitigated because the cooling medium is separated from the refrigerant itself. As a result, it maintains efficiency while also ensuring that the refrigerant is contained within a controlled environment, reducing the possibility of harmful leaks. This feature is particularly important in applications where exposure to refrigerants can pose health and safety risks or where refrigerant loss would adversely affect system operation. In contrast, options relating to pressure, refrigerant properties, or maintenance, while important, do not provide the same level of protective separation from the potential risks associated with refrigerant leaks.

7. What causes the atmospheric valve to open on a steam turbine?

- A. Low pressure in the steam line
- B. High temperature in the turbine
- C. All answers are correct**
- D. Condensation in the turbine

The atmospheric valve on a steam turbine opens under certain conditions that may be influenced by multiple factors. When considering the operation of a steam turbine, the primary function of the atmospheric valve is to allow steam to enter the turbine system while preventing the buildup of excessive pressure or potential damage. Low pressure in the steam line is a critical factor because the atmospheric valve is designed to open when there is a drop in pressure. This ensures that steam can flow into the turbine efficiently, maintaining proper operation and performance. High temperature in the turbine can also be a contributing factor. Steam needs to be at a certain temperature to remain in a gaseous state, enhancing efficiency. If the temperature rises too high, the turbine may need to vent steam to protect the system from overheating, which can also cause the atmospheric valve to open. Additionally, condensation within the turbine can create a situation where the steam pressure drops, as the conversion of steam to water decreases the overall volume and pressure within the system. This condition may also trigger the atmospheric valve to open, allowing for the introduction of fresh steam to balance the system. Since each of these factors—low pressure, high temperature, and condensation—can independently result in the atmospheric valve opening, it is accurate to say that all of these answers

8. For which type of refrigerant is FDNY approval required?

- A. Freon
- B. Ammonia
- C. Propane**
- D. R-134a

FDNY approval is required for propane because it is classified as a flammable refrigerant. The use of flammable refrigerants poses unique safety hazards, particularly in terms of fire and explosion risk. Regulations are put in place to ensure that systems using such refrigerants are designed, installed, and maintained in ways that minimize these risks. In contrast, while other refrigerants like Freon (R-12 or R-22), ammonia, and R-134a have their own sets of regulations, they do not require FDNY approval in the same way that propane does. Ammonia is also regulated under various safety standards due to its toxicity, but the flammability of propane necessitates a more stringent approval process to ensure public safety and compliance with local codes.

9. What is the responsibility of a B29 CoF Holder?

- A. Operate the emergency generator
- B. Inspect the battery system**
- C. Supervise the fire alarm system
- D. Manage the elevator operations

The responsibility of a B29 Certificate of Fitness (CoF) holder specifically pertains to the inspection and maintenance of battery systems in buildings. This role is critical for ensuring that battery backups function properly during emergencies, such as power outages, when reliable power sources are required to maintain critical systems like fire alarms and emergency lights. Regular inspections conducted by the B29 CoF holder help to identify issues such as corrosion, battery leaks, and overall functionality, which significantly contribute to the safety and preparedness of the building. In contrast, operating emergency generators, supervising fire alarm systems, and managing elevator operations fall under the purview of other specific certifications and responsibilities that do not align with the duties assigned to a B29 CoF holder. These tasks are managed by different CoF holders who possess the necessary training and certification to handle those systems accordingly. This distinction helps ensure that all critical safety systems are managed by individuals with the appropriate expertise.

10. What equipment should manifold hoses be equipped with?

- A. High pressure gauges
- B. Low loss fittings**
- C. Standard connectors
- D. Pressure relief valves

Manifold hoses should be equipped with low loss fittings to ensure efficient operation and minimize the reduction of flow during the transfer of gases, particularly in emergency situations where every second counts. Low loss fittings are specifically designed to reduce turbulence and friction as gases pass through them, which assists in maintaining the highest possible pressure and flow rates. This is critical in respiratory applications where a steady supply of breathable air is essential for user safety and functionality. In settings like firefighting or hazardous material handling, where manifold hoses are often used, maintaining the integrity of the air supply is vital. Low loss fittings contribute significantly to this by enhancing the overall performance of the system and ensuring that there is a reduced risk of pressure drops that could potentially compromise respiratory equipment function. While high pressure gauges, standard connectors, and pressure relief valves play important roles in other contexts and safety measures, the specific requirement for manifold hoses is to utilize low loss fittings to optimize performance and reliability in high-stakes environments.

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://fdnyrmo.examzify.com>

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

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