

Enriched Air Nitrox (SC-EAN) 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. What is the primary concern when diving with higher oxygen concentrations?**
 - A. The risk of decompression sickness**
 - B. Reduced visibility**
 - C. The risk of oxygen toxicity**
 - D. Increased air consumption**

- 2. What is a primary advantage of using EANx for scuba diving?**
 - A. Reduced nitrogen absorption leading to longer bottom times**
 - B. More buoyancy control**
 - C. Less equipment needed for dives**
 - D. Increased risk of decompression sickness**

- 3. What is the primary advantage of using Nitrox for diving?**
 - A. Increased buoyancy**
 - B. Reduced nitrogen absorption**
 - C. Improved visibility underwater**
 - D. Lower equipment costs**

- 4. What is the primary benefit of using Enriched Air Nitrox for diving?**
 - A. Increased buoyancy control**
 - B. Longer bottom times and shorter surface intervals**
 - C. Improved visibility underwater**
 - D. Lower equipment costs**

- 5. What is the maximum allowable partial pressure of oxygen for recreational diving?**
 - A. 1.2 ATA**
 - B. 1.4 ATA**
 - C. 1.6 ATA**
 - D. 1.8 ATA**

- 6. What can happen if a diver exceeds the recommended oxygen exposure limit?**
- A. They may become more buoyant**
 - B. They risk developing nitrogen narcosis**
 - C. They could experience central nervous system oxygen toxicity**
 - D. They will have an increased dive time**
- 7. Why is it important to follow manufacturer specifications for Nitrox-compatible equipment?**
- A. To ensure aesthetic compatibility**
 - B. To avoid damage and ensure safety**
 - C. To ensure ease of use**
 - D. To comply with recreational standards**
- 8. O₂ sensors are sensitive to changes in atmospheric pressure and moisture, the analysis of the same gas will show you:**
- A. Lower reading**
 - B. The same reading**
 - C. Slightly different reading**
 - D. Higher reading**
- 9. What should a diver do if they experience symptoms of oxygen toxicity?**
- A. Remain at the current depth until symptoms dissipate**
 - B. Ascend to a lower pressure immediately**
 - C. Notify the dive buddy and continue the dive**
 - D. Increase the dive depth to reduce symptoms**
- 10. At what depth does the maximum operating depth for EAN36 become a concern?**
- A. 20-22 meters (65-72 feet)**
 - B. 30-32 meters (100-105 feet)**
 - C. 40-42 meters (130-138 feet)**
 - D. 50-52 meters (164-171 feet)**

Answers

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

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Explanations

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1. What is the primary concern when diving with higher oxygen concentrations?

- A. The risk of decompression sickness**
- B. Reduced visibility**
- C. The risk of oxygen toxicity**
- D. Increased air consumption**

When diving with higher oxygen concentrations, the primary concern is the risk of oxygen toxicity. As the partial pressure of oxygen increases, especially at depths greater than approximately 1.4 ATA (atmospheres absolute), the likelihood of experiencing oxygen toxicity rises. This condition can lead to a range of serious health issues, including convulsions, visual disturbances, and other neurological effects. Oxygen toxicity is particularly critical to monitor because it can occur more quickly in deeper dives where the pressure increases the partial pressure of oxygen in the breathing gas. Divers using enriched air nitrox must be trained to recognize their depth limits and understand how to manage their oxygen exposure throughout their dive. While decompression sickness, reduced visibility, and increased air consumption are important factors in the overall safety of diving, they do not pose the same immediate and severe threat that oxygen toxicity does when using oxygen-rich mixtures like nitrox. Thus, it is essential for divers to be aware of and manage the risks associated with elevated oxygen levels to ensure a safe diving experience.

2. What is a primary advantage of using EANx for scuba diving?

- A. Reduced nitrogen absorption leading to longer bottom times**
- B. More buoyancy control**
- C. Less equipment needed for dives**
- D. Increased risk of decompression sickness**

The primary advantage of using Enriched Air Nitrox (EANx) for scuba diving is indeed the reduced nitrogen absorption, which leads to longer bottom times. When diving with EANx, the increased proportion of oxygen and decreased proportion of nitrogen compared to regular air decreases the total amount of nitrogen that the body absorbs during the dive. This reduction in nitrogen allows divers to extend their no-decompression limits or bottom times safely without encountering nitrogen narcosis or excessive nitrogen buildup in the body, which can lead to decompression sickness. Utilizing EANx allows divers to maximize their bottom time, especially in shallow dives, providing a greater opportunity to explore and enjoy the underwater environment. The other options do not accurately reflect the benefits of using EANx; for example, buoyancy control is not inherently improved with EANx as it primarily depends on the diver's skill and the equipment used. Similarly, less equipment is not a result of using EANx, and the increased risk of decompression sickness contradicts the very purpose of using EANx to manage nitrogen exposure effectively.

3. What is the primary advantage of using Nitrox for diving?

- A. Increased buoyancy
- B. Reduced nitrogen absorption**
- C. Improved visibility underwater
- D. Lower equipment costs

The primary advantage of using Nitrox for diving is the reduction in nitrogen absorption, which helps decrease the risk of decompression sickness. Nitrox has a higher percentage of oxygen and a lower percentage of nitrogen compared to regular air, which means that divers are exposed to less nitrogen while diving. This reduction in nitrogen exposure allows for longer bottom times and shorter surface intervals, promoting safety during dives. Additionally, because less nitrogen is absorbed, the body has a lower nitrogen load, which can be beneficial during deeper or longer dives, ultimately enhancing a diver's overall safety and comfort underwater. In contrast, while increased buoyancy, improved visibility underwater, and lower equipment costs could be perceived benefits in some contexts, they do not directly contribute to the primary safety advantage that Nitrox offers divers. Increased buoyancy is more related to equipment and diving conditions, visibility is influenced by environmental factors, and equipment costs can vary regardless of the gas used. Thus, the focus on reduced nitrogen absorption as a key benefit of using Nitrox stands out clearly.

4. What is the primary benefit of using Enriched Air Nitrox for diving?

- A. Increased buoyancy control
- B. Longer bottom times and shorter surface intervals**
- C. Improved visibility underwater
- D. Lower equipment costs

The primary benefit of using Enriched Air Nitrox for diving is the ability to achieve longer bottom times and shorter surface intervals. This advantage arises because Enriched Air Nitrox typically contains a higher percentage of oxygen (generally between 32% and 36%) compared to regular air, which contains approximately 21% oxygen. By increasing the oxygen content, divers can reduce their exposure to nitrogen, which directly impacts the formation of nitrogen bubbles in the body during ascent. With reduced nitrogen absorption, divers can extend their time spent at certain depths without incurring the same level of risk for decompression sickness that is associated with diving on air. Furthermore, shorter surface intervals are made possible because the reduced nitrogen build-up allows for quicker surface recovery times between dives. This combination significantly enhances the overall diving experience, allowing for more time underwater and less waiting on the surface between dives. Other options like increased buoyancy control and improved visibility underwater do not inherently come from the use of Enriched Air Nitrox, nor is there a direct relation between Nitrox and lower equipment costs. Thus, the aspect of longer bottom times and shorter surface intervals directly correlates with the benefits of using Enriched Air Nitrox in diving scenarios.

5. What is the maximum allowable partial pressure of oxygen for recreational diving?

- A. 1.2 ATA
- B. 1.4 ATA**
- C. 1.6 ATA
- D. 1.8 ATA

The maximum allowable partial pressure of oxygen for recreational diving is 1.4 ATA (atmospheres absolute). This limit is established to help prevent oxygen toxicity, which can occur when divers breathe higher levels of oxygen under pressure. At 1.4 ATA, the risk of central nervous system oxygen toxicity increases, especially during deeper dives. Recreational diving guidelines recommend this limit to ensure diver safety while enjoying the benefits of enriched air Nitrox, which contains a higher percentage of oxygen than regular air. Such a threshold allows divers to gain the advantages of reduced nitrogen levels in their breathing gas while minimizing the risk associated with excessive oxygen exposure. Maintaining the partial pressure of oxygen at or below this limit is crucial for safe diving practices, particularly during deep or extended dives where the cumulative exposure to oxygen at increased pressures can pose health risks.

6. What can happen if a diver exceeds the recommended oxygen exposure limit?

- A. They may become more buoyant
- B. They risk developing nitrogen narcosis
- C. They could experience central nervous system oxygen toxicity**
- D. They will have an increased dive time

Exceeding the recommended oxygen exposure limit can result in central nervous system oxygen toxicity. This condition occurs when there is an excessive amount of oxygen in the body, particularly impacting the central nervous system. Symptoms may include visual disturbances, tinnitus, nausea, twitching, irritability, and in severe cases, convulsions and loss of consciousness. The critical factor in this situation is that increasing oxygen levels leads to heightened partial pressure, which can have toxic effects on the body, especially during deeper dives where the pressure is already increased. Therefore, understanding and adhering to the limits of oxygen exposure is vital for ensuring safe diving practices and protecting divers from the harmful effects of oxygen toxicity.

7. Why is it important to follow manufacturer specifications for Nitrox-compatible equipment?

- A. To ensure aesthetic compatibility**
- B. To avoid damage and ensure safety**
- C. To ensure ease of use**
- D. To comply with recreational standards**

Following manufacturer specifications for Nitrox-compatible equipment is crucial primarily to avoid damage and ensure safety. Nitrox, which is a mixture of oxygen and nitrogen with a higher oxygen content than regular air, can introduce specific risks if equipment is not designed to handle it. Many materials and components that are safe for use with regular air may not withstand the higher oxygen levels found in Nitrox, leading to potential degradation or failure. Using equipment that is not Nitrox-compatible can result in dangerous situations, such as equipment malfunction, which could jeopardize the diver's safety underwater. Proper maintenance and adherence to specifications help to prevent such risks and contribute to the overall safety and reliability of diving activities. A focus on aesthetic compatibility, ease of use, or compliance with recreational standards, while relevant in certain contexts, does not address the fundamental safety and operational integrity that manufacturer specifications are designed to uphold. These aspects may enhance the experience but do not mitigate the risks associated with using the wrong equipment for Nitrox.

8. O₂ sensors are sensitive to changes in atmospheric pressure and moisture, the analysis of the same gas will show you:

- A. Lower reading**
- B. The same reading**
- C. Slightly different reading**
- D. Higher reading**

Oxygen sensors are designed to measure the concentration of oxygen in a gas mixture, such as in enriched air nitrox. These sensors can indeed be affected by variations in atmospheric pressure and humidity. Changes in atmospheric pressure can alter the density of the gas, impacting how the sensor perceives the mole fraction of oxygen present. Similarly, moisture in the gas can interfere with the sensor's ability to accurately detect and measure oxygen levels. When faced with different conditions, the analysis of the same gas can yield slightly different readings. The presence of moisture can lead to variations in the sensor's output due to condensation effects or changes in the electrical properties of the sensing medium. Additionally, if atmospheric pressure changes, the sensor may register a different effective concentration of oxygen. Therefore, in practice, even a small change in these environmental conditions could result in the sensor displaying a reading that is not constant but rather slightly different from previous measurements. This effect is crucial for divers to understand, as it underscores the importance of calibrating equipment under similar environmental conditions to ensure accuracy in gas mixtures used for diving.

9. What should a diver do if they experience symptoms of oxygen toxicity?

- A. Remain at the current depth until symptoms dissipate**
- B. Ascend to a lower pressure immediately**
- C. Notify the dive buddy and continue the dive**
- D. Increase the dive depth to reduce symptoms**

When a diver experiences symptoms of oxygen toxicity, ascending to a lower pressure immediately is the correct response. Oxygen toxicity can occur when divers use enriched air nitrox that is too rich in oxygen for the specific depth they are at, leading to potential neurological or pulmonary complications. Symptoms can include visual disturbances, muscle twitching, nausea, and seizures. By ascending, the diver reduces the ambient pressure, which in turn decreases the partial pressure of oxygen in the breathing mix. As the pressure decreases, the risk of oxygen toxicity is mitigated, allowing the body to recover from the effects. Remaining at depth or increasing depth would only worsen the situation, increasing the likelihood of serious complications. Notifying a dive buddy is important for safety but should come after taking the immediate necessary action to ensure personal health by ascending.

10. At what depth does the maximum operating depth for EAN36 become a concern?

- A. 20-22 meters (65-72 feet)**
- B. 30-32 meters (100-105 feet)**
- C. 40-42 meters (130-138 feet)**
- D. 50-52 meters (164-171 feet)**

The maximum operating depth for EAN36 (Enriched Air Nitrox with 36% oxygen) becomes a concern at depths of around 30-32 meters (100-105 feet) due to the physiological effects of increased partial pressure of oxygen. At this depth, the partial pressure of oxygen in the breathing gas significantly increases, which in turn raises the risk of oxygen toxicity, particularly during prolonged exposure. Oxygen toxicity can lead to central nervous system effects, such as dizziness, visual disturbances, and in severe cases, seizures, which can be dangerous while diving. This risk makes it critical for divers to be aware of the maximum operating depth for their specific gas mixtures to ensure safe diving practices. The depth range in the other choices either falls below or significantly exceeds the levels at which these risks start to become a primary concern for EAN36.

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://enrichedairnitrox.examzify.com>

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

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