COMBAT DIVE CLOSED CIRCUIT DIVING FUNDAMENTALS PRACTICE EXAM (SAMPLE)

STUDY GUIDE

SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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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

1. True or false: Oxygen toxicity can accompany confusion.

A. True

B. False

C. Not enough data

D. Sometimes

2. If a diver becomes unconscious or incoherent at depth, what should the buddy do first?

A. Add O2 to the diver's UBA

B. Abort the dive immediately

C. Switch the mouthpiece to surface position

D. Return to the surface without aid

3. Which bottle on the SECUMAR vest is used in emergencies?

A. the right bottle

B. the left bottle

C. the top bottle

D. the rear bottle

4. What runs from the pressure reducer/regulator to the demand valve?

A. the connecting line

B. the supply hose

C. the data cable

D. the exhaust tube

5. Why is gas management critical in CCR operations?

A. It helps maintain a comfortable breathing gas mixture for the diver.

B. Gas management is optional if the dive is short.

C. Gas management is primarily about conserving gas and does not affect PPO2 or safety.

D. Gas management keeps PPO2 within safe limits, avoids O2 toxicity, and provides redundancy for emergencies.

6. In a closed-circuit rebreather, what is the role of the diluent gas?

A. It supplies oxygen to the loop.

B. It filters CO2 from the loop.

C. It serves as the inert balance gas in the loop, helps maintain volume, and aids in controlling PPO2 as depth changes.

D. It cools the loop gas.

7. Which statement best describes the purpose of the hard ceiling on PPO2 in CCR diving?

A. To improve gas exchange efficiency.

B. To limit CNS oxygen toxicity risk by capping PPO2.

C. To prevent scrubber exhaust from happening.

D. To maintain a constant loop temperature.

8. Which of the following is NOT a purge type?

A. Preliminary purge

B. Surface purge

C. Stability purge

D. Emergency descent purge

9. Which unit is used to express the maximum oxygen fill pressure?

A. PSIG

B. BAR

C. kPa

D. psi

10. What can affect trim, ballast, and rig control?

A. Water temperature

B. Visibility

C. Salinity

D. Dive depth

Answers

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

Explanations

1. True or false: Oxygen toxicity can accompany confusion.

A. True

B. False

C. Not enough data

D. Sometimes

Oxygen toxicity can accompany confusion because oxygen reaching the brain at high partial pressures can disrupt neural function. When the inspired oxygen partial pressure is elevated (as with deep dives using enriched air or rebreathers), CNS toxicity can occur, producing symptoms such as dizziness, vision changes, irritability, and confusion. Confusion is a recognized sign of CNS oxygen toxicity and can precede more serious events if exposure continues. So the statement is true. In practice, spotting confusion means reducing exposure to high-oxygen gas—ascend to shallower depth or switch to a gas with a lower oxygen fraction and follow appropriate safety steps.

2. If a diver becomes unconscious or incoherent at depth, what should the buddy do first?

A. Add O2 to the diver's UBA

B. Abort the dive immediately

C. Switch the mouthpiece to surface position

D. Return to the surface without aid

Providing oxygen to the diver's UBA is the first action because the immediate danger is hypoxia. When someone becomes unconscious at depth, their brain and vital organs can suffer quickly if oxygen delivery isn't restored. Adding O2 to the diver's UBA ensures they continue to receive oxygen right away while you manage the rescue and plan the ascent. Aborting the dive immediately or returning to the surface without aid would leave the diver without targeted oxygen support during an at-depth emergency, which can worsen the outcome. Switching the mouthpiece to surface position would cut off the available oxygen supply at a critical moment. The priority is to stabilize oxygen delivery first, then proceed with safe ascent and further care as needed.

3. Which bottle on the SECUMAR vest is used in emergencies?

A. the right bottle

B. the left bottle

C. the top bottle

D. the rear bottle

The emergency gas source on a SECUMAR vest is the bottle mounted on the right side. This placement allows quick access with the diver's right hand and provides a separate, independent regulator so you can breathe from it without disturbing the primary gas supply. In normal use, the left bottle is the main breathing gas; the right bottle is reserved for bailout in an emergency. The other positions aren't configured for rapid emergency access in standard setups, so the right-hand bottle is the correct choice for emergencies.

4. What runs from the pressure reducer/regulator to the demand valve?

A. the connecting line

B. the supply hose

C. the data cable

D. the exhaust tube

Air moves from the pressure reducer/regulator to the demand valve through a line that connects the two parts of the system. This connecting line carries air at the regulator's intermediate pressure to the second stage, and when you inhale, the demand valve opens to let that air flow into your mouth. Without this line, the demand valve wouldn't receive air to supply your breaths. The other options don't fit this purpose: a data cable isn't part of the air-delivery path, and an exhaust tube handles the expelled air rather than supplying it. While some might loosely call it a supply hose, the term used here emphasizes the direct link between the regulator and the demand valve—the connecting line.

5. Why is gas management critical in CCR operations?

A. It helps maintain a comfortable breathing gas mixture for the diver.

B. Gas management is optional if the dive is short.

C. Gas management is primarily about conserving gas and does not affect PPO2 or safety.

D. Gas management keeps PPO2 within safe limits, avoids O2 toxicity, and provides redundancy for emergencies.

Gas management in CCR diving is about controlling the breathing gas so you stay safe as you change depth and handle the dive plan. The critical part is keeping the oxygen partial pressure (PPO2) within safe limits. In a closed circuit, oxygen is added to the loop to maintain a chosen PPO2, but as you descend or ascend, ambient pressure changes and even small shifts in oxygen fraction can push PPO2 too high or too low. If PPO2 gets too high, you risk oxygen toxicity, which can cause seizures and loss of control. If it's too low, you can become hypoxic. So monitoring and adjusting the gas mix to stay within a safe PPO2 window is the core safety driver of CCR operation. Redundancy is the other essential piece. Having backup gas sources and backup plans means you can continue the dive or reach the surface safely even if a gas source, a sensor, or a valve fails. That redundancy protects you during emergencies and ensures you won't run out of usable gas when it matters most. While gas management can influence gas usage efficiency, its primary purpose in CCR is safety—keeping PPO2 in a safe range and providing reliable options to handle unexpected problems.

6. In a closed-circuit rebreather, what is the role of the diluent gas?

A. It supplies oxygen to the loop.

B. It filters CO2 from the loop.

C. It serves as the inert balance gas in the loop, helps maintain volume, and aids in controlling PPO2 as depth changes.

D. It cools the loop gas.

In a closed-circuit rebreather, the diluent is the inert balance gas that fills the breathing loop aside from the oxygen. Its main job is to provide a baseline gas volume inside the loop so the system has a known, stable total gas amount as pressure changes with depth. Because the loop pressure increases with depth, the diluent helps keep the overall gas volume and density in a safe range and gives the oxygen addition system something to work with when maintaining the target oxygen partial pressure (PPO2). The oxygen supply is what actually sets the PPO2 by adding O2 to reach the desired setpoint, while the diluent provides the inert backdrop that makes that control feasible as depth changes. This gas mix does not remove CO2 (that's the scrubber's job), and it does not primarily cool the loop gas. It's all about being the inert balance gas that preserves loop volume and supports proper PPO2 control as you dive deeper or shallower.

7. Which statement best describes the purpose of the hard ceiling on PPO2 in CCR diving?

A. To improve gas exchange efficiency.

B. To limit CNS oxygen toxicity risk by capping PPO2.

C. To prevent scrubber exhaust from happening.

D. To maintain a constant loop temperature.

The hard ceiling on PPO2 is there to cap the oxygen partial pressure in the breathing loop, protecting the diver from CNS oxygen toxicity. In a closed-circuit rebreather, oxygen is added to keep the loop's PPO2 within a safe range, but depth increases ambient pressure, which raises the effective PPO2 even with the same gas mix. If PPO2 gets too high, CNS toxicity can occur, potentially leading to seizures. The hard ceiling enforces a strict upper limit; when calculations threaten to exceed it, the system stops adding oxygen (or otherwise prevents the limit from being breached) to keep PPO2 within a safe range. Other options don't address this safety priority. Gas exchange efficiency isn't controlled by a PPO2 cap, scrubber exhaust isn't related to the PPO2 ceiling, and loop temperature is governed by heat exchange in the system, not by the PPO2 limit.

8. Which of the following is NOT a purge type?

A. Preliminary purge

B. Surface purge

C. Stability purge

D. Emergency descent purge

Purging the breathing loop in closed circuit diving is about clearing water and non breathable gas so you breathe clean, properly mixed gas and avoid gas-pocket issues. Preliminary purge is done on the surface to push out water and contaminants before entry. Surface purge is performed to ensure the loop has a clean gas path as you transition to diving. Emergency descent purge describes purging during an emergency descent to maintain safe breathing gas as you descend. Stability purge isn't a recognized purge method in standard training, so it isn't a purge type.

9. Which unit is used to express the maximum oxygen fill pressure?

A. PSIG

B. BAR

C. kPa

D. psi

Understanding how cylinder pressures are labeled helps here. The maximum fill pressure of a high pressure gas cylinder, like oxygen used in dive operations, is typically given in bar. Bar is a metric unit that directly reflects the rating of the cylinder itself, and many gas blends and dive equipment use bar as the standard reference. A cylinder labeled with a value in bar is indicating the pressure you should not exceed when filling, which aligns with how manufacturers specify safe limits (for example, around 200 bar for many oxygen cylinders). While psi or PSIG (pounds per square inch, gauge) are common in some regions, they are not the standard labeling for maximum fill pressure in diving oxygen cylinders, and converting between units adds a step that isn't necessary for reading the specification. Kilopascals (kPa) are accurate but less practical for typical cylinder ratings and not the conventional display. So, bar is the best answer because it matches the conventional labeling and practical use for maximum oxygen fill pressure in dive-related equipment.

10. What can affect trim, ballast, and rig control?

A. Water temperature

B. Visibility

C. Salinity

D. Dive depth

Water temperature directly changes how much buoyant force you experience. Colder water is denser, so for the same submerged volume you get a greater upward buoyant push. That shift in buoyancy can alter your trim and the way your ballast and rig sit in the water, prompting a need to adjust weight distribution and rig positioning to maintain stable trim. In a closed-circuit setup, changes in gas density and the behavior of any gas in the system with temperature can further affect buoyancy and, consequently, rig control. While other factors like depth or salinity can influence buoyancy as well, temperature has the most immediate and practical impact on the balance and control of your equipment during a dive.

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://combatdiveclosedcircuitdiving.examzify.com

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