# SSI Scuba Practice Exam (Sample)

## Study Guide


**Everything you need from our exam experts!**

# Questions

**1. Which type of coral is not classified as hard coral?**

**A. Staghorn**

**B. Brain coral**

**C. Sea fan**

**D. Elkhorn**

**2. What factors should be considered when choosing a dive site?**

**A. Water temperature and currents only**

**B. Underwater flora and fauna only**

**C. Water conditions, visibility, depth, and hazards**

**D. Availability of local guides**

**3. What does proper buoyancy control during a dive help prevent?**

**A. Decompression sickness**

**B. Overexpansion injuries**

**C. Coral damage**

**D. All of the above**

**4. What is the significance of maintaining a dive log?**

**A. To track dive experiences and incidents**

**B. To reduce dive time**

**C. To determine equipment rentals**

**D. To list preferred dive sites**

**5. What is the definition of residual nitrogen in diving?**

**A. The amount of nitrogen in the atmosphere during a dive**

**B. The amount of excessive nitrogen dissolved in our blood stream and tissues after a dive**

**C. The total nitrogen a diver absorbs during a dive**

**D. The amount of nitrogen released from the body after surfacing**

**6. What kind of ascent is recommended if you lose contact with your dive buddy?**

- **A. Speedy ascent to the surface**
- **B. Controlled and slow ascent**
- **C. Ascent at a diagonal angle**
- **D. Ascent without looking around**

**7. Should you perform a safety stop at 15 feet for 3 to 5 minutes on every dive?**

- **A. True**
- **B. False**
- **C. Only on deep dives**
- **D. Only if instructed by a dive master**

**8. At what depth is the gauge pressure equal to 1 ATA in sea water?**

- **A. 0 ft**
- **B. 33 ft**
- **C. 50 ft**
- **D. 65 ft**

**9. To achieve the SSI Master Diver rating, what is required?**

- **A. Be certified as an SSI Advanced Open Water Diver and log a total of 50 dives**
- **B. Complete the SSI Advanced Open Water Diver course and the Stress and Rescue Specialty Course, logging 50 dives**
- **C. Complete at least 5 specialty courses and log 30 dives**
- **D. Be certified as a Rescue Diver and log 40 dives**

**10. What is the maximum allowable ascent rate recommended for diving?**

- **A. 20 feet per minute**
- **B. 30 feet per minute**
- **C. 40 feet per minute**
- **D. 50 feet per minute**

# Answers

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

# Explanations

## 1. Which type of coral is not classified as hard coral?

**A. Staghorn**

**B. Brain coral**

**C. Sea fan**

**D. Elkhorn**

**Sea fans are classified as soft corals, which distinguishes them from hard corals. Hard corals, such as staghorn, brain, and elkhorn corals, possess a calcareous skeleton that provides structural support and contributes to reef building. In contrast, sea fans lack this rigid skeleton; instead, they have a flexible, branching structure made primarily of a protein called gorgonin. This characteristic allows soft corals like sea fans to thrive in varying environments, often in deeper waters or areas with strong currents where hard corals might be less successful. The flexibility of their structure helps them withstand the forces of water movement, unlike the stiffer skeletons of hard corals, which are more vulnerable to physical damage in such conditions.**

## 2. What factors should be considered when choosing a dive site?

**A. Water temperature and currents only**

**B. Underwater flora and fauna only**

**C. Water conditions, visibility, depth, and hazards**

**D. Availability of local guides**

**Choosing a dive site is a comprehensive process that involves several critical factors to ensure both safety and enjoyment during the dive. Water conditions, visibility, depth, and hazards are essential considerations because they directly affect a diver's experience and safety. Water conditions encompass various elements such as temperature, currents, and wave action. These factors influence thermal protection needs and the energy required to navigate through the site. Visibility, on the other hand, is crucial for safe navigation and for enjoying the underwater scenery. Depth is important not only for planning the dive according to the diver's certification levels but also for understanding potential effects like narcosis or the need for specific gas mixes. Identifying hazards such as strong currents, sharp objects, or marine life can help divers prepare adequately and take necessary precautions. By carefully evaluating these factors, divers can select a site that matches their skills and comfort levels while enhancing their overall diving experience. Other aspects like the availability of local guides and the specific underwater life are also worthy of consideration, but they are secondary to understanding the fundamental environmental conditions that impact a dive.**

## 3. What does proper buoyancy control during a dive help prevent?

**A. Decompression sickness**

**B. Overexpansion injuries**

**C. Coral damage**

**D. All of the above**

**Proper buoyancy control during a dive is crucial for several reasons, all contributing to a safer and more environmentally conscious diving experience. Firstly, it helps prevent decompression sickness. When divers are not properly buoyant, they may ascend or descend too quickly, which can lead to nitrogen bubbles forming in the body as pressure changes rapidly. This condition, known as decompression sickness, can result in severe health complications. Secondly, buoyancy control is vital in preventing overexpansion injuries, particularly in relation to air spaces in the body such as lungs. If a diver ascends too rapidly without proper buoyancy, the air in their lungs can expand excessively, potentially causing rupture or other injuries. Lastly, good buoyancy control is essential in protecting delicate underwater ecosystems, particularly coral reefs. When divers lose control, they may unintentionally come into contact with corals or seabeds, causing damage to marine habitats. With effective buoyancy management, divers can navigate the underwater environment more gently and responsibly, minimizing their impact on marine life. Therefore, effective buoyancy control serves to mitigate the risk of decompression sickness, prevent overexpansion injuries, and protect coral and other marine ecosystems, which collectively justifies the response that it helps prevent all of the mentioned issues.**

## 4. What is the significance of maintaining a dive log?

**A. To track dive experiences and incidents**

**B. To reduce dive time**

**C. To determine equipment rentals**

**D. To list preferred dive sites**

**Maintaining a dive log is fundamental for divers as it serves multiple important purposes, primarily tracking dive experiences and incidents. A dive log allows divers to document essential details about each dive, such as location, depth, duration, water conditions, and any noteworthy observations or incidents that occurred. This practice not only helps in reflecting on past experiences but also assists divers in identifying patterns or areas needing improvement, enhancing their skills and safety for future dives. Additionally, having a well-maintained dive log is critical for divers who pursue advanced certifications or dive master roles, as many certifying agencies require proof of dive experience. It also provides valuable information in the event of a dive-related incident, supporting proper medical evaluation if necessary. The other choices don't capture the comprehensive and safety-oriented significance of a dive log, as tracking dive experiences and incidents is the primary intent behind its maintenance. While reducing dive time, determining equipment rentals, or listing preferred dive sites may be considerations for divers, these are not the core reasons for keeping a systematic record of dive activities.**

## 5. What is the definition of residual nitrogen in diving?

**A. The amount of nitrogen in the atmosphere during a dive**

**B. The amount of excessive nitrogen dissolved in our blood stream and tissues after a dive**

**C. The total nitrogen a diver absorbs during a dive**

**D. The amount of nitrogen released from the body after surfacing**

**Residual nitrogen refers to the nitrogen that remains dissolved in a diver's bloodstream and tissues after the ascent from a dive. When divers descend, they inhale air that contains nitrogen, which is absorbed by the body due to the increased pressure. Upon surfacing, some of this nitrogen can remain in the body, especially if the diver has been exposed to increased depths or longer durations. This residual nitrogen is important to consider because it affects future dives and must be managed to avoid decompression sickness, commonly known as "the bends." The options highlight different aspects of nitrogen management in diving, but only the correct answer specifically addresses the presence of excess nitrogen in the body post-dive, which is crucial for understanding dive safety and planning for subsequent dives.**

## 6. What kind of ascent is recommended if you lose contact with your dive buddy?

**A. Speedy ascent to the surface**

**B. Controlled and slow ascent**

**C. Ascent at a diagonal angle**

**D. Ascent without looking around**

**A controlled and slow ascent is essential for safety in scuba diving, especially if you lose contact with your dive buddy. When a diver ascends too quickly, it can lead to various issues, including decompression sickness or barotrauma due to rapid changes in pressure. A slow ascent allows the diver to manage their buoyancy and gives them the opportunity to monitor their physical condition as they surface. Additionally, during a controlled ascent, divers can take safety stops at various depths to off-gas nitrogen absorbed during the dive, further reducing the risk of decompression sickness. This approach enhances the diver's overall safety and well-being, ensuring they are in the best condition when they reach the surface. In scenarios where a buddy is lost, maintaining control during the ascent is particularly crucial. This method not only prioritizes personal safety but also allows the diver to remain aware of their surroundings, which is vital for locating their buddy or safely navigating back to the entry point.**

## 7. Should you perform a safety stop at 15 feet for 3 to 5 minutes on every dive?

**A. True**

**B. False**

**C. Only on deep dives**

**D. Only if instructed by a dive master**

**Performing a safety stop at 15 feet for 3 to 5 minutes on every dive is considered a best practice in recreational diving. This procedure helps to significantly reduce the risk of decompression sickness, as it allows nitrogen absorbed in the tissues during the dive to be released gradually. During ascent, divers experience a decrease in pressure, which can cause nitrogen bubbles to form if they ascend too quickly. A safety stop provides an opportunity for excess nitrogen to safely come out of solution in a controlled manner. While it may be more emphasized on deeper dives due to the increased risk associated with greater depths and longer bottom times, making it a routine part of all dives is a proactive measure in maintaining diver safety and enhancing overall dive experience.**

## 8. At what depth is the gauge pressure equal to 1 ATA in sea water?

**A. 0 ft**

**B. 33 ft**

**C. 50 ft**

**D. 65 ft**

**Gauge pressure is the pressure exerted by a fluid at a given depth, exclusive of atmospheric pressure. In the case of scuba diving in seawater, the pressure increases with depth due to the weight of the water above. At sea level, we experience an atmospheric pressure of approximately 1 ATA (atmosphere absolute). As we descend into the water, the pressure increases because of the water above us. Generally, for seawater, pressure increases by approximately 1 ATA for every 33 feet of depth. Therefore, at a depth of 33 feet in seawater, the pressure due to the water would be 1 ATA. When you combine this with the atmospheric pressure at the surface (1 ATA), the total pressure at this depth is 2 ATA, which is why gauge pressure is considered to equal 1 ATA at this depth. This relationship between depth and pressure helps divers understand how much pressure they will be experiencing as they go deeper underwater, ensuring they're prepared and able to manage their dive safely.**

## 9. To achieve the SSI Master Diver rating, what is required?

**A. Be certified as an SSI Advanced Open Water Diver and log a total of 50 dives**

**B. Complete the SSI Advanced Open Water Diver course and the Stress and Rescue Specialty Course, logging 50 dives**

**C. Complete at least 5 specialty courses and log 30 dives**

**D. Be certified as a Rescue Diver and log 40 dives**

**Achieving the SSI Master Diver rating requires a combination of specific certifications and practical diving experience, which is why the correct answer focuses on completing both the SSI Advanced Open Water Diver course and the Stress and Rescue Specialty Course, alongside logging a total of 50 dives. The Advanced Open Water Diver course builds on the skills learned in the Open Water program, enhancing the diver's ability to handle varying diving situations, while the Stress and Rescue Specialty Course is crucial for developing the skills necessary to prevent and manage stress and emergencies, which are vital for a Master Diver. Logging 50 dives provides the necessary experience to ensure that the diver is competent and comfortable in a variety of underwater environments. The other options do not encompass the full set of requirements established by SSI for the Master Diver rating. For instance, simply being certified as an Advanced Open Water Diver or meeting a lower dive count without the critical training provided in the Stress and Rescue Specialty Course would not adequately prepare a diver for the responsibilities associated with the Master Diver designation. This comprehensive approach to both training and experience is designed to ensure that Master Divers are well-equipped to handle the complexities of diving safely and effectively.**

## 10. What is the maximum allowable ascent rate recommended for diving?

**A. 20 feet per minute**

**B. 30 feet per minute**

**C. 40 feet per minute**

**D. 50 feet per minute**

**The maximum allowable ascent rate recommended for diving is typically set at 30 feet per minute. This rate is suggested to help divers reduce the risk of decompression sickness, or "the bends," which can occur when ascending too quickly from depth. A controlled ascent allows nitrogen, which has been absorbed into the body tissues during the dive, to be safely expelled without forming bubbles that can cause injury. During a dive, as the diver spends time at depth, the body's tissues become saturated with nitrogen based on the surrounding pressure. If a diver ascends too quickly, the decrease in pressure can lead to the formation of nitrogen bubbles. By maintaining an ascent rate of around 30 feet per minute, divers can ensure a safer transition to the surface, allowing them to stop and allow their bodies time to off-gas any excess nitrogen, particularly at designated safety stops. In contrast, ascent rates higher than this limit may not provide sufficient time for safe off-gassing, increasing the risk of decompression sickness. Therefore, adhering to the recommended ascent rate is crucial for diver safety.**