



# SDI Open Water Scuba Diver Exam

Version A v.0716

Student's Name \_\_\_\_\_ Date \_\_\_\_\_

Instructor's Name \_\_\_\_\_

Please choose the best answer to the question and mark it on this exam.

1. Objects under water appear:

- A. Closer than they do on land.
- B. Farther away than they do on land.
- C. Larger than they do on land.
- D. Both the first and third answers are correct.

2. How much faster does sound travel in water, compared to air?

- A. Twice as fast.
- B. Four times as fast.
- C. Over 200 times as fast.
- D. Over 800 times as fast.

3. Water conducts heat away from your body:

- A. Twice as fast as air does.
- B. Four times faster than air does.
- C. Ten times faster than air does.
- D. Twenty-five times faster than air does.

4. As you descend:

- A. Colors appear to fade.
- B. Reds and oranges are among the first colors to disappear.
- C. At 30 meters (100 feet), things may appear predominantly blue and gray.
- D. All of the above.

5. Below what water temperature does your body require some form of thermal protection?

- A. 10°C/50°F.
- B. 20°C/68°F.
- C. 29°C/86°F.
- D. None of the above.

6. What does SCUBA stand for?

- A. Self contained underwater breathing apparatus.
- B. Self contaminated underwater breathing apparatus.
- C. Self collapsible underwater buoyant apparatus.
- D. None of the above.

7. When water stratifies itself into layers, according to temperature, the boundary between layers is known as a:

- A. Halocline.
- B. Ichtyocline.
- C. Thermodyne.
- D. Thermocline.

8. What is the primary cause of waves?

- A. Tides.
- B. Currents.
- C. Winds.
- D. Seismic activity.

9. Which of the following factors do we take into account when measuring waves?

- A. Height.
- B. Length.
- C. Oscillation.
- D. Both the first and second answers are correct.

10. Which of the following is incorrect?
- A. Waves are formed by wind pushing water on the surface.
  - B. Waves are not hazardous to divers during shore dives.
  - C. Breaking waves at the shoreline are called surf.
  - D. The size of the wave generally depends on fetch.
11. The consequences of becoming cold under water include all of the following, except:
- A. Loss of comfort and enjoyment.
  - B. Improved judgment and coordination.
  - C. Reduced resistance to decompression sickness.
  - D. Exhaustion.
12. Because sound travels faster under water:
- A. Sounds appear to be coming from closer than they really are.
  - B. Sounds appear to be coming from farther away than they really are.
  - C. It is harder to determine the direction from which a sound is coming.
  - D. It is easier to determine the direction from which a sound is coming.
13. Entering through surf requires special skills. These skills are often included in beginning scuba course taught in areas in which surf entries are common.
- A. True.
  - B. False.
14. Which of the following is/are true?
- A. Surge is the backwash of water from waves breaking on shore.
  - B. Surge is the back-and-forth movement of water caused by waves passing over head.
  - C. Surge occurs when waves force water between facing rock ledges.
  - D. None of the above.

15. Which of the following is/are true?
- A. The sun warming water near the equator, coupled with the earth's rotation, is the primary cause of permanent ocean currents.
  - B. Seismic activity, deep under water, is the primary cause of permanent ocean currents.
  - C. Prevailing winds, created by the Coriolis Effect, are the primary cause of permanent ocean currents.
  - D. None of the above.
16. Despite its apparent warmth, divers in tropical water still need to consider the need for thermal protection.
- A. True.
  - B. False.
17. Longshore currents always move in the same direction as prevailing offshore currents.
- A. True.
  - B. False.
18. A rip current is a narrow flow of swiftly moving water that runs parallel to shore.
- A. True.
  - B. False.
19. The trick to dealing with surge is to anticipate its action in order to avoid contact with stationary objects.
- A. True.
  - B. False.
20. What is the most effective way to get out of a rip current?
- A. Swim directly towards shore, using the most powerful kick possible.
  - B. Swim parallel to shore, until you are completely out of the rip current, then swim in towards shore.
  - C. Don't fight the rip current; relax and let it carry you closer to shore.
  - D. None of the above.
21. In general, the best time to dive is during slack tide, the period between high and low tides.
- A. True.
  - B. False.

22. We pose a vastly greater threat to underwater plant and animal life than they do to us.
- A. True.
- B. False.
23. What causes most marine life injuries?
- A. An animal's defensive response to a perceived threat.
- B. Animals with teeth.
- C. Mistaken identity.
- D. Both the first and third answers are correct.
24. What ability best helps you avoid damage to the fragile aquatic environment?
- A. Specialized propulsion techniques.
- B. Buoyancy control.
- C. Reduced exhaust bubble emission.
- D. None of the above.
25. All of the following are steps can you take to avoid scrapes and abrasions, except:
- A. Maintain constant control over buoyancy.
- B. Maintain constant awareness of the location and position of your hands, legs, feet and other body parts.
- C. Wear minimal exposure protection.
- D. Avoid touching any living creature unless you are absolutely certain that doing so will not cause harm to either of you.
26. Some aquatic animals possess stinging cells. These are called:
- A. Hypothocysts.
- B. Nematocysts.
- C. Psoriacysts.
- D. None of the above.
27. Marine animal bites are almost always the result of the animal defending itself or a case of mistaken identity.
- A. True.
- B. False.

28. Always stay within your level of experience. As an open water diver you should not venture into overhead environments such as a cave or wreck.
- A. True.  
 B. False.
29. The states of buoyancy include all of the following except:
- A. Positive  
 B. Passive  
 C. Neutral  
 D. Negative
30. A scuba cylinder that normally lasts one hour at the surface will last \_\_\_\_\_ minutes at 20 meters/66 feet.
- A. 30  
 B. 20  
 C. 15  
 D. 10
31. If you feel pain or discomfort in your ears during descent:
- A. Stop, hold in place and equalize forcefully until your ears clear.  
 B. Ascend to the point where you can comfortably equalize, and only then continue your descent.  
 C. Abort the dive and consult a physician.  
 D. Note the depth at which the pain occurred and conduct your safety stop there at the end of the dive.
32. The single most important rule of scuba diving is:
- A. Equalize early and often.  
 B. Breathe continuously; never hold your breath.  
 C. Never descend head first.  
 D. None of the above.

33. Among the best ways to prevent decompression sickness (DCS):
- A. Remain well within your dive computer's no-decompression limit.
  - B. Ascend no faster than the rate allowed by the dive computer.
  - C. Make a safety stop of between three and five minutes at a depth of 3-6 m/10-20 ft.
  - D. All of the above.
34. The signs and symptoms of decompression sickness can include:
- A. Headache and nausea.
  - B. Pain in the joints.
  - C. Tingling, numbness, and paralysis.
  - D. All of the above.
35. The chief cause of nitrogen narcosis is:
- A. Diving past 40 m/132 ft.
  - B. The elevated partial pressure of nitrogen divers experience at depth.
  - C. The combination of carbon dioxide and nitrogen at depth.
  - D. None of the above.
36. \_\_\_\_\_ causes extreme headache and nausea, may cause the lips and fingernail beds to turn bright red and, in high enough concentrations, can cause unconsciousness.
- A. Nitrogen
  - B. Oxygen
  - C. Carbon monoxide
  - D. Argon
37. A mask must cover the nose:
- A. To prevent water from entering.
  - B. To ensure the best possible fit.
  - C. So that you can keep the pressure inside the mask equal to the pressure outside.
  - D. Both the first and second answers are correct.

38. The types of fins commonly used by recreational scuba divers include:
- A. Full-foot fins.
  - B. Detachable-blade fins.
  - C. Open-heel/adjustable fins.
  - D. Both the first and third answers are correct.
39. Basic post-dive equipment maintenance and care includes:
- A. Rinsing thoroughly with fresh water.
  - B. Allowing to dry completely.
  - C. Storing in a cool, dry place, away from direct sunlight.
  - D. All of the above.
40. Common exposure suit types include:
- A. Dive skins.
  - B. Wet suits.
  - C. Dry suits.
  - D. All of the above.
41. Your body loses the greatest amount of heat through the:
- A. Head.
  - B. Feet.
  - C. Hands.
  - D. None of the above.
42. Common BCD components include all of the following except:
- A. Harness.
  - B. CO<sub>2</sub> inflation mechanism.
  - C. Air cell.
  - D. Inflation/deflation mechanism.

43. Common weight systems include:
- A. Weight belts.
  - B. BCDs with integrated weight systems.
  - C. Cylinders with weights permanently affixed to the boot.
  - D. Both the first and second answers are correct.
44. A regulator system may include:
- A. A first stage and primary second stage.
  - B. An alternate air source second stage (or a connection to an alternate-air-source inflator on the BCD).
  - C. A submersible pressure gauge (SPG), which is usually part of an instrument console.
  - D. All of the above.
45. A regulator equipped with a conventional alternate-air-source second stage:
- A. Is among the most widely used and readily understood type of alternate air source.
  - B. Limits the receiver to using only the alternate-air-source second stage.
  - C. Allows the donor to give either second stage to an out-of-air diver.
  - D. Both the first and third answers are correct.
46. Scuba cylinders must periodically undergo:
- A. Hydrostatic testing.
  - B. Anticorrosive re-coating.
  - C. Visual inspections.
  - D. Both the first and third answers are correct.
47. The minimum information most dive computers provide you with while in Dive mode include:
- A. Current and maximum dive depth.
  - B. Actual bottom time.
  - C. Decompression status (no-deco limit or required deco).
  - D. All of the above.

48. Steps in equipment assembly include all of the following except:
- A. Check cylinder and O-ring.
  - B. Attach BCD and regulator.
  - C. Depressurize system and test regulators.
  - D. Clip off alternate-air-source second stage and instrument console.
49. What piece of equipment should never be allowed to dangle freely?
- A. Alternate-air-source second stage.
  - B. BCD power inflator.
  - C. Submersible pressure gauge or instrument console.
  - D. Both the first and third answers are correct.
50. Which is the most common boat entry technique?
- A. Backward roll.
  - B. Controlled-seated entry.
  - C. Forward roll.
  - D. Giant stride.
51. Before you can remove the regulator from your scuba cylinder, you must:
- A. Turn the air all the way off.
  - B. Depressurize the system by depressing and holding one of the purge buttons.
  - C. Make sure the low-pressure inflator hose remains connected to the BC power inflate
  - D. Both the first and second answers are correct
52. The key to using air efficiently while breathing from scuba is to:
- A. Breathe slowly and deeply.
  - B. Briefly hold your breath between inhalations.
  - C. Breathe rapidly, taking only shallow breaths.
  - D. None of the above.

53. Common methods for clearing water from a regulator second stage include:
- A. Exhaling into the second stage.
  - B. Holding the second stage over your head with the mouthpiece pointed down.
  - C. Depressing the purge button.
  - D. Both the first and third answers are correct.
54. Key points in recovering a second stage using the sweep method include:
- A. Using your left hand to push up on the bottom of your cylinder.
  - B. Leaning forward, dipping your right shoulder.
  - C. Leaning forward, dipping your left shoulder.
  - D. None of the above.
55. When clearing a mask of water, you should form a seal by:
- A. Pushing in at the bottom.
  - B. Pushing in at the top and sides.
  - C. Pulling out slightly at the bottom.
  - D. None of the above.
56. “Having just enough weight to achieve all three states of buoyancy with only minor adjustments in the water” is the definition of:
- A. Breath control.
  - B. BCD use.
  - C. Proper weighting.
  - D. None of the above.
57. Among the key points in using your BCD to help maintain neutral buoyancy under water:
- A. Add or remove air to or from your BCD only in large bursts, until you develop a more intuitive feel for the process.
  - B. To be successful in maintaining neutral buoyancy, you must be: aware of changes in depth; and, anticipate the need to add or vent air from your BC by keeping a hand on the inflator.
  - C. Before you can achieve neutral buoyancy, you must first assume a fin-pivot position on the bottom.
  - D. None of the above.

58. If your buoyancy is under control, you should be able to hover at any time by:
- A. Adding just a single puff of air to your BCD.
  - B. Inhaling deeply.
  - C. Not kicking or moving.
  - D. Both the first and second answers are correct.
59. Among the key points in doing a flutter kick correctly:
- A. Keep the legs straight and make long, slow kicks from the hips.
  - B. Emulate the leg movements you make when pedaling a bicycle.
  - C. Keep your toes pointed.
  - D. Both the first and third answers are correct.
60. Situations in which you might want to remove your weight system include:
- A. Emergencies.
  - B. Controlled seated entries.
  - C. Small boat exits.
  - D. Both the first and third answers are correct.
61. You can best don your scuba unit at the surface by:
- A. Passing it over your head.
  - B. Putting it on like a jacket
  - C. Sitting on it.
  - D. Both the second and third answers are correct.
62. Which type of alternate air source does not necessarily require the donor to give up his primary second stage?
- A. Technical diving configuration.
  - B. Alternate-air-source inflator.
  - C. Conventional alternate-air-source second stage.
  - D. None of the above.

63. An independent emergency ascent may be the best response to an out-of-air/low-on-air situation:
- A. Any time the water is shallower than 10 m/33 ft.
  - B. If the surface is closer than a buddy (or any other diver) who is equipped and ready to share air.
  - C. If you are equipped with a redundant air supply.
  - D. None of the above.
64. Techniques commonly used to navigate under water include:
- A. Natural navigation.
  - B. Computer navigation.
  - C. Compass navigation.
  - D. Both the first and third answers are correct.
65. Always dive within the limits of your:
- A. Training.
  - B. Equipment.
  - C. Experience.
  - D. All of the above.
66. Activities that may increase the risk of decompression sickness include:
- A. Alcohol use.
  - B. Computer use.
  - C. Drug use.
  - D. Both the first and third answers are correct.
67. Among the things dive buddies must agree upon prior to a dive are:
- A. Depth and time limits.
  - B. Planned activity.
  - C. Procedure to follow if separated.
  - D. All of the above.

68. If you become separated from your buddy, search for no more than \_\_\_\_\_, then surface.
- A. One minute
  - B. Two minutes
  - C. Three minutes
  - D. Five minutes
69. Dive planning elements may include all of the following except:
- A. Purpose of dive.
  - B. Notifying a third party of your plans.
  - C. Reviewing hand signals.
  - D. Deciding whose computer to follow.
70. On most repetitive dives, your computer will provide \_\_\_\_\_ no-decompression limits than on single dives.
- A. Less conservative
  - B. More conservative
  - C. Significantly greater
  - D. None of the above
71. Should you accidentally exceed your dive computer's no-decompression limit.
- A. Stop for two minutes at 6 m/20 ft and five minutes at 3 m/10 ft.
  - B. Ascend immediately, begin breathing pure oxygen and contact the Divers Alert Network (DAN).
  - C. Air permitting, make the decompression stop indicated by your dive computer. Afterward, monitor for signs and symptoms of decompression sickness.
  - D. None of the above.
72. At the first sign of overexertion:
- A. Abort the dive.
  - B. Stop, relax and breathe deeply.
  - C. Signal to the shore or boat for assistance.
  - D. Both the first and third answers are correct.

73. If you cannot reunite with a missing buddy:
- A. Initiate an underwater search, using an expanding square pattern.
  - B. Seek assistance from the closest military base.
  - C. Leave underwater searches to trained professionals.
  - D. None of the above.
74. Seasickness is caused by:
- A. Factors such as smell of salt water and the sound of boat engines.
  - B. A change in equilibrium in the inner ear.
  - C. An elevation in adrenaline levels caused by anxiety over diving.
  - D. None of the above.
75. If you suspect that you or another diver is suffering from decompression sickness.
- A. Drive yourself (or the affected diver) to the closest recompression chamber.
  - B. Activate the Emergency Medical Service (EMS) system.
  - C. Contact the Divers Alert Network (DAN).
  - D. Both the second and third answers are correct.

I, \_\_\_\_\_, completely understand the answers to the questions that I missed as explained by my instructor.

Student's Signature\* \_\_\_\_\_ Date: \_\_\_\_\_

\*Only after the questions are corrected and reviewed with instructor. mm/dd/yy