



# **SDI Open Water Scuba Diver Exam**

**Version B v.0816**  
**Instructor Answer Key**

1. Which of the following is/are true?  
☐ B. Because sound travels faster under water, it is harder to determine the direction from which it is coming.
2. The consequences of becoming cold under water include all of the following, except:  
☐ B. Improved judgment and coordination.
3. Objects under water appear:  
☐ C. Closer and larger than they do on land.
4. Which of the following statements is/are true?  
☐ C. As you descend, colors appear to fade.
5. How much faster does sound travel in water, compared to air?  
☐ B. Four times as fast.
6. What does SCUBA stand for?  
☐ A. Self contained underwater breathing apparatus.
7. A thermocline is the boundary between layers of fresh and salt water.  
☐ B. False.
8. Which of the following is/are true?  
☐ C. How far a wave travels unobstructed has little effect on its size.

9. Which of the following statements are true?
- ☐ D. Both the first and second answers are correct. (A. Wave height is the distance from its highest point (crest) to its lowest point (trough). & B. Wave length is the distance from crest to crest.)
10. A wave encountering shallow water begins to slow at its bottom, while the top of the wave continues at its previous speed. This causes the wave to break.
- ☐ A. True.
11. The signs and symptoms of decompression sickness can include:
- ☐ A. Headache and nausea.
- ☐ B. Pain in the joints.
- ☐ C. Loss of feeling in the extremities.
- ☐ D. All of the above.
12. Water conducts heat away from your body 20 times faster than air does.
- ☐ B. False.
13. Becoming cold under water can reduce your body's resistance to decompression sickness.
- ☐ A. True.
14. Which of the following is/are true?
- ☐ C. Entering through surf is not recommended for recreational divers.
15. Surge:
- ☐ B. Is the back-and-forth movement of water caused by waves passing over head.
16. Surge is the backwash of water from waves breaking on shore.
- ☐ B. False.

17. The sun warming water near the equator, coupled with the earth's rotation, is the primary cause of permanent ocean currents.
- ☐ A. True.
18. Which of the following is not true?
- ☐ A. Longshore currents always move in the same direction.
19. Which of the following statements is/are true?
- ☐ A. A rip current is a narrow flow of swiftly moving water that runs perpendicular to shore.
- ☐ B. Rip currents form when water flowing out to sea is funneled through a narrow restriction, such as two sandbars or a break in a coral reef.
- ☐ C. The force of a rip current generally diminishes in deeper water, not far beyond the surf zone.
- ☐ D. All of the above.
20. Which of the following is/are true?
- ☐ C. If caught in a rip current, swim parallel to shore, until you are completely out of the rip current, then swim in towards shore.
21. Which of the following is/are true?
- ☐ A. Tides can make the water at a particular dive site noticeably deeper or shallower than you may have experienced previously.
- ☐ B. Tidal currents can be very strong, making diving difficult or even dangerous.
- ☐ C. Strong tidal currents can have an adverse effect on visibility.
- ☐ D. All of the above.
22. The slightest touch on a coral polyp can destroy the organism's protective membrane, causing permanent damage.
- ☐ A. True.

23. Most aquatic life injuries amount to no more than a temporary, yet painful, sting or abrasion.
- ☐ A. True.
24. Buoyancy control, more than any other skill, helps you avoid damage to fragile aquatic life.
- ☐ A. True.
25. Which of the following is/are true?
- ☐ B. Maintaining constant control over buoyancy helps you prevent stings and abrasions.
26. Animals that possess nematocysts include:
- ☐ D. Both the second and third answers are correct.
27. An animal's poisonous spines are primarily an offensive weapon, used for hunting and attacking other animals.
- ☐ B. False.
28. Examples of overhead environments may include:
- ☐ A. Caverns and caves.
- ☐ B. Wreck penetration.
- ☐ C. Ice diving.
- ☐ D. All of the above.
29. \_\_\_\_\_ buoyant items tend to float; \_\_\_\_\_ buoyant items tend to sink; items that are \_\_\_\_\_ buoyant neither float nor sink.
- ☐ C. Positively, negatively, neutrally
30. The volume of gas in a flexible container at a depth of 10 m/33 ft will expand to \_\_\_\_\_ its original volume if taken to the surface.
- ☐ A. Twice.

31. An ear squeeze occurs when:
- ☐ B. The pressure inside the middle ear space is less than ambient (surrounding) pressure.
32. At the first sign of overexertion:
- ☐ B. Stop, relax and breathe deeply.
33. Your dive computer indicates you need to make a mandatory decompression stop. Your buddy's dive computer does not. You should:
- ☐ B. You and your buddy should both follow the most conservative of the two dive
34. Contributing factors to decompression sickness can include:
- ☐ A. Rapid ascents.
- ☐ B. "Pushing" or exceeding your computer's no-decompression limits.
- ☐ C. Heavy exertion and/or dehydration.
- ☐ D. All of the above.
35. Which of the following is the best way to prevent or reduce nitrogen narcosis?
- ☐ B. Avoid dives below 20 meters/66 feet.
36. Which of the following may indicate that air in a scuba cylinder is contaminated and potentially toxic?
- ☐ A. Color.
- ☐ B. Odor.
- ☐ C. Taste.
- ☐ D. Any of the above.

**37. Desirable mask features include:**

- ☐ A. Soft, silicone skirt.
- ☐ B. Low internal volume.
- ☐ C. Snug, comfortable fit.
- ☐ D. All of the above.

**38. Among the most important features to look for when selecting fins are:**

- ☐ A. Comfort and fit.
- ☐ B. Blade size proportional to leg strength.
- ☐ C. Suitability for the type of diving you do.
- ☐ D. All of the above.

**39. Rinsing equipment in fresh water helps remove:**

- ☐ A. Salt.
- ☐ B. Chlorine.
- ☐ C. Sand, mud and other sediments.
- ☐ D. All of the above.

**40. Which of the following statements is not true?**

- ☐ C. Wet suits are unnecessary in water warmer than 25 °C/77 °F.

**41. Hoods becomes necessary any time water temperatures drop below:**

- ☐ D. 20 °C/68 °F

**42. Popular BCD styles include:**

- ☐ D. Both the first and third answers are correct. (A. Jacket-style (wraparound) & C. Back-inflation style.)

43. In recent years, integrated weight BCDs have overtaken conventional weight belts in popularity among divers because:
- ☐ A. They are generally more comfortable to wear.
  - ☐ B. They are generally easier and more convenient to use.
  - ☐ C. They give divers the option to drop just a portion of their weight, if needed.
  - ☐ D. All of the above.
44. The single most important feature to consider when purchasing a scuba regulator is:
- ☐ C. The availability of regular, professional maintenance.
45. Some alternate air sources are combined with a \_\_\_\_\_ , to reduce the number of hoses connected to the first stage regulator.
- ☐ B. BCD power inflator
46. Scuba cylinders must be:
- ☐ B. Hydrostatically tested and visually inspected at intervals determined by local laws and regulations, or prevailing standards of practice.
47. Additional features common to many dive computers include all of the following except:
- ☐ B. The ability monitor a diver's exposure to air, Nitrox and Trimix.
48. If possible, before attaching your BCD to your scuba cylinder, you should:
- ☐ B. Soak the cam band (cylinder band) in water.
49. Not allowing alternate-air-source second stages, instrument consoles and other equipment to dangle freely:
- ☐ D. Both the second and third answers are correct. (B. Helps protect equipment from damage. & C. Helps reduce the risk of entanglement.)
50. The best type of boat entry:
- ☐ D. Both the second and third answers are correct. (B. Is the one the crew recommends. & C. Is generally the easiest.)

51. If you will be rinsing your regulator after removing it from the cylinder, you must make sure that the \_\_\_\_\_ is firmly in place.
- ☐ C. Dust cap
52. If your buoyancy is under control, you should be able to hover at any time by:
- ☐ B. Not kicking or moving.
53. Any time a regulator is out of your mouth under water, you should:
- ☐ B. Exhale a small, steady stream of bubbles.
54. The two most common methods for recovering a regulator that has fallen behind your shoulder are:
- ☐ C. Reach, Sweep
55. Which of the following is not true? When Clearing a mask, you should:
- ☐ A. Pull out slightly at the base of the mask to create a space for water to exit.
56. The most accurate place to conduct a weight check is:
- ☐ C. At safety-stop depth, at the end of the dive.
57. To successfully vent air from a BCD:
- ☐ B. The exhaust valve you will be using must be the highest point on the air cell.
58. The three A's of buoyancy control include all of the following except:
- ☐ C. Appreciation.
59. Using your arms to swim under water:
- ☐ C. Causes you to expend energy needlessly.
60. It is substantially harder to remove and replace the weight pockets in a BCD than it is to remove and replace a conventional weight belt.
- ☐ B. False.



61. Before putting your BCD on like a jacket at the surface, you should fully inflate it.
- ☐ B. False.
62. Proper buddy positioning for an alternate-air-source ascent includes:
- ☐ A. Both divers use their right hands to hold on to the other's forearm or BCD shoulder strap.
- ☐ B. Both divers use their left hands to grasp their BCD's deflation mechanism to control rate of ascent.
- ☐ C. Both divers maintain eye contact with one another, but offset themselves slightly so as not to kick the other's fins.
- ☐ D. All of the above.
63. To minimize the risk of a lung overpressure injury during an independent emergency ascent:
- ☐ C. You must be exhaling continuously any time you cannot inhale.
64. The most commonly used method of finding your way under water is:
- ☐ A. Natural navigation.
65. Diving safety begins with \_\_\_\_\_ and \_\_\_\_\_.
- ☐ D. personal awareness, self sufficiency
66. \_\_\_\_\_ has a detrimental effect on diving.
- ☐ B. Smoking cigarettes
67. Any diver can signal to \_\_\_\_\_ the dive for any \_\_\_\_\_.
- ☐ C. abort, reason
68. What should you and your buddy do if separated during a dive?
- ☐ C. Immediately start their prearranged plan for finding each other.

69. Divers should plan to ascend as soon as the first diver:
- ☐ D. Both the first and second answers are correct. (A. Reaches his minimum ascent pressure. & B. Reaches his maximum allowable dive time.
70. You will generally get the longest bottom times by:
- ☐ B. Making the deepest dives first.
71. If you are unable to make a required decompression stop:
- ☐ A. Breathe pure oxygen for at least 30 minutes.
- ☐ B. Monitor for signs and symptoms of decompression sickness for the next 24 hours.
- ☐ C. Do not dive or fly for at least 24 hours.
- ☐ D. All of the above.
72. The first rule in handling any problem situation at the surface is to:
- ☐ C. Establish positive buoyancy.
73. Without proper training, all you may accomplish by searching for a missing buddy on your own is to put yourself at risk.
- ☐ A. True.
74. Anti-seasickness medication may be effective if taken immediately upon the onset of symptoms.
- ☐ B. False.
75. Treatment for decompression sickness may require recompression in a hyperbaric chamber.
- ☐ A. True.