



# SDI Open Water Scuba Diver Exam

Version B v.0816

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

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

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

1. Which of the following is/are true?

- A. Because sound travels faster under water, it is easier to determine the direction from which it is coming.
- B. Because sound travels faster under water, it is harder to determine the direction from which it is coming.
- C. Because sound travels faster under water, it appears to be coming from closer than it really is.
- D. Both the first and third answers are correct.

2. 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.

3. Objects under water appear:

- A. The same size as they do on land.
- B. Twice as large as they do on land.
- C. Closer and larger than they do on land.
- D. Smaller and farther away than they do on land.

4. Which of the following statements is/are true?
- A. Depth has little effect on apparent color.
  - B. Blues and grays are among the first colors to disappear as you descend.
  - C. As you descend, colors appear to fade.
  - D. As you descend, colors appear to intensify.
5. 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.
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. A thermocline is the boundary between layers of fresh and salt water.
- A. True.
  - B. False.
8. Which of the following is/are true?
- A. The harder the wind blows, the larger the resulting waves tend to be.
  - B. The longer the wind blows, the larger the resulting waves tend to be.
  - C. How far a wave travels unobstructed has little effect on its size.
  - D. Both the first and second answers are correct.
9. Which of the following statements are true?
- 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.
  - C. Wave oscillation is calculated by multiplying the wave height times its length.
  - D. Both the first and second answers are correct.

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.  
 B. False.
11. 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.
12. Water conducts heat away from your body 20 times faster than air does.
- A. True.  
 B. False.
13. Becoming cold under water can reduce your body's resistance to decompression sickness.
- A. True.  
 B. False.
14. Which of the following is/are true?
- A. Entering through surf requires advanced diver training.  
 B. Entering through surf requires special skills.  
 C. Entering through surf is not recommended for recreational divers.  
 D. Surf entries are uncommon below the equator.
15. Surge:
- A. Occurs when waves force water between facing rock ledges.  
 B. Is the back-and-forth movement of water caused by waves passing over head.  
 C. Is the backwash of water from waves breaking on shore.  
 D. None of the above.

16. Surge is the backwash of water from waves breaking on shore.
- A. True.
- 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.
- B. False.
18. Which of the following is not true?
- A. Longshore currents always move in the same direction.
- B. Wind, waves and tides are among the factors that can affect the direction of longshore currents.
- C. Longshore currents frequently move in the same direction as permanent offshore currents.
- D. Local dive operators are a good source of information on the behavior of longshore currents.
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?
- A. If caught in a rip current, swim directly towards shore, using the most powerful kick possible.
- B. If caught in a rip current, swim perpendicular to shore, until you are completely out of the rip current, then swim in towards shore
- 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.
- D. Don't fight the rip current; relax and let it carry you closer to 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.
  - B. False.
23. Most aquatic life injuries amount to no more than a temporary, yet painful, sting or abrasion.
- A. True.
  - B. False.
24. Buoyancy control, more than any other skill, helps you avoid damage to fragile aquatic life.
- A. True.
  - B. False.
25. Which of the following is/are true?
- A. Wearing minimal exposure protection will help you maintain awareness of the location and position of your hands, legs, feet and other body parts.
  - B. Maintaining constant control over buoyancy helps you prevent stings and abrasions.
  - C. It is okay to touch animals if they appear not to object.
  - D. None of the above.
26. Animals that possess nematocysts include:
- A. Scorpionfish.
  - B. Fire coral.
  - C. Portuguese man-o-war jellyfish.
  - 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.
- A. True.  
 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.
- A. Negatively, neutrally positively  
 B. Positively, neutrally, negatively  
 C. Positively, negatively, neutrally  
 D. None of the above.
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.  
 B. Three times.  
 C. Four times.  
 D. None of the above.
31. An ear squeeze occurs when:
- A. The pressure inside the middle ear space is greater than ambient (surrounding) pressure.  
 B. The pressure inside the middle ear space is less than ambient (surrounding) pressure.  
 C. Divers forget to wear ear plugs.  
 D. None of the above.

32. 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.
33. Your dive computer indicates you need to make a mandatory decompression stop. Your buddy's dive computer does not. You should:
- A. Follow your buddy's dive computer and have yours repaired.
  - B. You and your buddy should both follow the most conservative of the two dive computers.
  - C. Make a decompression stop that splits the difference between what your buddy's computer requires and what yours does.
  - D. None of the above.
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?
- A. Avoid unnecessary exertion, as elevated carbon dioxide levels exacerbate narcosis.
  - B. Avoid dives below 20 meters/66 feet.
  - C. Use a dry suit, as cold increases the risk of narcosis.
  - D. Both the first and third answers are correct.
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?
- A. Wet suits work by surrounding your body with a low-density material (neoprene) foam, that retards heat loss through radiation.
  - B. To work, a wet suit must fit snugly to reduce the amount of cold water that circulates through the suit.
  - C. Wet suits are unnecessary in water warmer than 25 °C/77 °F.
  - D. Dive skins help protect you from scrapes, abrasion and sunburn; however, they offer little in the way of insulation.
41. Hoods becomes necessary any time water temperatures drop below:
- A. 5 °C/41 °F
  - B. 10 °C/50 °F
  - C. 15 °C/59 °F
  - D. 20 °C/68 °F

42. Popular BC styles include:
- A. Jacket-style (wraparound).
  - B. Horse-collar style.
  - C. Back-inflation style.
  - D. Both the first and third answers are correct.
43. In recent years, integrated weight BCs 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:
- A. How well it performs in controlled laboratory testing.
  - B. A second-stage adjustment knob to ensure ease of breathing.
  - C. The availability of regular, professional maintenance.
  - D. Both the first and second answers are correct.
45. Some alternate air sources are combined with a \_\_\_\_\_, to reduce the number of hoses connected to the first stage regulator.
- A. Tire inflator
  - B. BC power inflator
  - C. Snorkel
  - D. Submersible pressure gauge
46. Scuba cylinders must be:
- A. Hydrostatically tested every four years and visually inspected every six months.
  - B. Hydrostatically tested and visually inspected at intervals determined by local laws and regulations, or prevailing standards of practice.
  - C. Hydrostatically tested every year and visually inspected every five years.
  - D. None of the above.

47. Additional features common to many dive computers include all of the following except:
- A. The ability to display dive log data and to upload that data to a laptop or desktop computer.
  - B. The ability monitor a diver's exposure to air, Nitrox and Trimix.
  - C. The ability to project no-decompression limits for upcoming dives.
  - D. Bar graphs that provide a visual representation of a diver's exposure to nitrogen and other gasses.
48. If possible, before attaching your BC to your scuba cylinder, you should:
- A. Inflate it completely.
  - B. Soak the cam band (cylinder band) in water.
  - C. Attach the regulator to the cylinder first.
  - D. Connect the BC low-pressure inflator hose to the BC.
49. Not allowing alternate-air-source second stages, instrument consoles and other equipment to dangle freely:
- A. Does little to protect equipment from damage.
  - B. Helps protect equipment from damage.
  - C. Helps reduce the risk of entanglement.
  - D. Both the second and third answers are correct.
50. The best type of boat entry:
- A. Is a backward roll.
  - B. Is the one the crew recommends.
  - C. Is generally the easiest.
  - D. Both the second and third answers are correct.
51. If you will be rinsing your regulator after removing it from the cylinder, you must make sure that the \_\_\_\_\_ is firmly in place.
- A. Mouthpiece plug
  - B. Alternate-air-source retainer
  - C. Dust cap
  - D. None of the above

52. 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.
53. Any time a regulator is out of your mouth under water, you should:
- A. Hold your breath to conserve your remaining air.
  - B. Exhale a small, steady stream of bubbles.
  - C. Exhale forcefully to purge your lungs of air.
  - D. None of the above.
54. The two most common methods for recovering a regulator that has fallen behind your shoulder are:
- A. Reach, Blast
  - B. Sweep, Purge
  - C. Reach, Sweep
  - D. Sweep, Blast
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.
  - B. Inhale through your mouth, but exhale through your nose.
  - C. Take as many breaths as needed to clear the mask completely.
  - D. Look up during the last exhalation to make the bottom of the mask skirt the lowest point.
56. The most accurate place to conduct a weight check is:
- A. At the surface, at the beginning of the dive.
  - B. At the deepest point reached during the dive.
  - C. At safety-stop depth, at the end of the dive.
  - D. None of the above.

57. To successfully vent air from a BC:
- A. You need to be in a perfectly vertical position.
  - B. The exhaust valve you will be using must be the highest point on the air cell.
  - C. You must activate the BC's overpressure relief valve.
  - D. None of the above.
58. The three A's of buoyancy control include all of the following except:
- A. Awareness.
  - B. Anticipation.
  - C. Appreciation.
  - D. Action.
59. Using your arms to swim under water:
- A. Dramatically increases your overall speed and efficiency.
  - B. Somewhat increases your overall speed and efficiency.
  - C. Causes you to expend energy needlessly.
  - D. None of the above.
60. It is substantially harder to remove and replace the weight pockets in a BC than it is to remove and replace a conventional weight belt.
- A. True.
  - B. False.
61. Before putting your BC on like a jacket at the surface, you should fully inflate it.
- A. True.
  - 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 BC shoulder strap.
  - B. Both divers use their left hands to grasp their BC'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:
- A. You must exhale completely prior to beginning your ascent.
  - B. You must make at least three attempts at inhaling during your ascent.
  - C. You must be exhaling continuously any time you cannot inhale.
  - D. You must spit out your regulator at the beginning of the ascent.
64. The most commonly used method of finding your way under water is:
- A. Natural navigation.
  - B. Computer navigation.
  - C. Compass navigation.
  - D. None of the above.
65. Diving safety begins with \_\_\_\_\_ and \_\_\_\_\_.
- A. environmental awareness, self awareness
  - B. personal awareness, buddy dependence
  - C. environmental awareness, self sufficiency
  - D. personal awareness, self sufficiency
66. \_\_\_\_\_ has a detrimental effect on diving.
- A. Regular exercise
  - B. Smoking cigarettes
  - C. Impaired vision
  - D. None of the above
67. Any diver can signal to \_\_\_\_\_ the dive for any \_\_\_\_\_.
- A. shorten, reason
  - B. continue, buddy
  - C. abort, reason
  - D. abort, buddy

68. What should you and your buddy do if separated during a dive?
- A. Continue alone to your pre-agreed exit point.
  - B. Look for a new dive buddy.
  - C. Immediately start their prearranged plan for finding each other.
  - D. Search for no more than three minutes, then continue alone.
69. Divers should plan to ascend as soon as the first diver:
- A. Reaches his minimum ascent pressure.
  - B. Reaches his maximum allowable dive time.
  - C. Reaches his maximum agreed-upon depth.
  - D. Both the first and second answers are correct.
70. You will generally get the longest bottom times by:
- A. Making the shallowest dives first.
  - B. Making the deepest dives first.
  - C. Waiting no more than 90 minutes between dives.
  - D. Doing no more than two dives a day.
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:
- A. Signal for help.
  - B. Ditch your scuba unit.
  - C. Establish positive buoyancy.
  - D. None of the above.

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.  
 B. False.
74. Anti-seasickness medication may be effective if taken immediately upon the onset of symptoms.
- A. True.  
 B. False.
75. Treatment for decompression sickness may require recompression in a hyperbaric chamber.
- A. True.  
 B. False.

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