

QUIZ#5 -- PHYSICS & PHYSIOLOGY

1. The pressure of air breathed while SCUBA diving is
 - a. 100 psi
 - b. ambient pressure
 - c. 45 psi
 - d. atmospheric pressure

2. The buoyancy created by a wetsuit
 - a. Is the same at almost any depth
 - b. Decreases with depth
 - c. Increases with depth
 - d. Is exactly compensated for at any depth by a weight belt

3. The weight of salt water is
 - a. 14.7 lbs/cubic foot
 - b. 62.4 lbs/cubic foot
 - c. 64.0 lbs/cubic foot
 - d. 80.0 lbs/cubic foot

4. Nitrogen narcosis and CO poisoning are best understood when we know the workings of:
 - a. Henry's Law
 - b. Boyle's Law
 - c. Archimedes Principle
 - d. Dalton's Law

5. Goggles are not recommended for the use in diving because
 - a. The nose is exposed to the water
 - b. You cannot equalize the eye cups
 - c. They tend to leak
 - d. They restrict vision

6. If a diver has a surface consumption of 1 cubic foot of air per minute, than 80 cubic feet of air will last him _____ minutes at the depth of 99 feet.
 - a. 10
 - b. 20
 - c. 40
 - d. 80

7. To prevent a mask squeeze, you would
 - a. Exhale air through your nose into the mask as you descend
 - b. Inhale through your nose as you descend
 - c. Pull the mask away from you face and clear it as you descend
 - d. Wait until you were at depth and then equalize the pressure within the mask

8. The pressure of air which enters your lungs from a SCUBA tank at a depth of 130 feet is approximately _____ psi.
 - a. 165
 - b. 100
 - c. 74
 - d. 60

9. The sum of gauge pressure plus atmospheric pressure is called _____ pressure.
- Absolute
 - Gauge
 - Total
 - Atmospheric
10. As you descend on SCUBA, what should you do to maintain neutral buoyancy?
- Nothing; buoyancy does not change
 - Add air to your buoyancy compensator
 - Let air out of your buoyancy compensator
 - Nothing; change is compensated for by your weight system
11. If you fill your lungs with air at the surface while skin diving to 33 feet, how much will your air volume decrease?
- 25%
 - 50%
 - 75%
 - volume remains the same
12. If a square block of wood, 3 cubic feet in volume and weighing 192 lbs, is put in salt water, the block will
- Sink
 - Float 1/3 above the surface
 - Float 2/3 above the surface
 - Just float
13. The greatest change of volume of air in your lungs occurs from
- 132 feet to 99 feet
 - 99 feet to 66 feet
 - 66 feet to 33 feet
 - 33 feet to surface
14. The total pressure of a gas mixture equals the
- Sum of the partial pressure of the gasses in the mixture
 - Partial pressures multiplied by the total pressure
 - Partial pressures multiplied by the ambient pressure
 - Total gauge and atmospheric pressure of the mixture
15. Pressure increases in seawater may be computed at the rate of ____ psi per foot.
- 4.63
 - 43.2
 - .445
 - .1542