

**Enriched Air
Nitrox**

**FINAL
EXAM**

INSTRUCTIONS:

Fill in the circle next to the answer of your choice. Turn the exam in to your instructor to be graded.

Diver Name

Date

Instructor

Grade

1. The CNS "Clock" Exposure Time table is used to monitor a diver's:

- (A) Nitrogen level
- (B) Oxygen level
- (C) Carbon dioxide level
- (D) Nitrogen and oxygen levels

2. Enriched Air Nitrox describes gas mixtures with oxygen concentrations:

- (A) Less than 15 percent
- (B) Between 13 and 18 percent
- (C) Less than 21 percent
- (D) Greater than 21 percent

3. A richer Nitrox mixture is one having a:

- (A) Lower concentration of oxygen
- (B) An FO₂ of 21%
- (C) An FO₂ lower than 21%
- (D) Higher concentration of oxygen

4. Which of the following Nitrox mixtures is most commonly used by divers to stay within the recommended depth limit of 100 ft/30m without exceeding a PO₂ of 1.4 atmospheres?

- (A) EAN36
- (B) EAN32
- (C) EAN40
- (D) All of the above

5. Divers can be assured of the gas mixture contained in a tank when:

- (A) The mixture has been blended using the partial pressure method
- (B) They have personally analyzed or witnessed the analysis of the tank's contents
- (C) The tank has a contents tag
- (D) The tank contains a green and yellow encircling band

6. The normal atmospheric air we breathe contains approximately ____ percent oxygen and ____ percent nitrogen.

- (A) 22/40
- (B) 79/21
- (C) 32/36
- (D) 21/79

7. Equivalent Air Depth (EAD) is an adjusted depth that takes into account the reduced concentration of ____ in the breathing mixture:

- (A) Nitrogen
- (B) Oxygen
- (C) Carbon dioxide
- (D) Hydrocarbons

8. Using the CNS “Clock” Exposure Time table, the percentage of exposure for a 1.4 PO₂ dive for 45 minutes is:

- A 21 percent
- B 25 percent
- C 28 percent
- D 22 percent

9. Using the Equivalent Depths table, the equivalent air depth for a dive on EAN33 to 100 ft/30m is:

- A 90ft/27m
- B 70ft/21m
- C 80ft/24m
- D 100ft/30m

10. The recommended limiting PO₂ and maximum limiting PO₂ for recreational Nitrox dives are:

- A 1.4/1.6
- B 1.3/1.6
- C .21/.16
- D .21/.79

11. Remaining within the recommended limiting PO₂ helps Nitrox divers to avoid:

- A Decompression Illness
- B Oxygen Toxicity
- C Nitrogen Narcosis
- D All of the above

12. Symptoms of oxygen toxicity include:

- A Itchiness of the skin
- B Visual impairment
- C Shortness of breath
- D Joint pain

13. A cylinder contents tag on a tank filled with Nitrox should include:

- A The MOD and limiting PO₂
- B The tank manufacturer’s name
- C The most recent hydrostatic test date
- D All of the above

14. The primary concern when using standard scuba cylinders for Nitrox is the possibility of:

- A Contaminating the air in the tank
- B Equipment parts coming in contact with pure oxygen
- C The oxygen content of the tank dropping below .10
- D The nitrogen content of the tank increasing above .8

15. A diver using a cylinder containing Nitrox while believing it contained air, could be at risk for:

- A Sudden unanticipated decompression illness
- B Sudden unanticipated overexpansion injury
- C Sudden unanticipated nitrogen narcosis
- D Sudden unanticipated oxygen toxicity

16. If you notice symptoms of oxygen toxicity while underwater, you should immediately begin:

- A Using your buddy’s alternate air source
- B A controlled ascent
- C Artificial respiration
- D Buddy breathing

17. For added safety, it is recommended that your CNS “Clock” exposure not exceed ____ of the total allowable limits:

- A 1.4 percent
- B 50 percent
- C 80-90 percent
- D 1.6 percent

18. An accurate gas analysis is only possible when:

- A The oxygen analyzer has been properly calibrated
- B The analysis is done by using a closed, sealed system
- C The gas has been allowed to flow for at least 30 seconds
- D All of the above

19. Nitrox divers can track their nitrogen exposure by:

- A Using an oxygen analyzer
- B Using the SSI Combined Air/EANx dive tables
- C Using MODs and an air based dive table
- D All of the above

For all Dive Planning Questions Use the Following SSI Tables:

- Combined Air/EANx
 - Equivalent Depths
 - “Clock” Exposure Time Limits
 - Doppler No-Decompression
-

20. Use the SSI Combined Air/EANx tables to plan the following dive to determine the Group Designation after the surface interval. A dive using EAN32 to a depth of 100 ft/30m for 20 minutes, followed by a 1 hour and 30 minute surface interval.

- A F
- B E
- C C
- D D

21. According to the Combined Air/EANx tables, the PO₂ for a dive to 100ft/30m, using EAN32 is:

- A .33
- B 1.22
- C 1.39
- D .85

22. Use the CNS “Clock” Time table to calculate the percentage of oxygen exposure for a dive to 100ft/30m, for 20 minutes using EAN32.

- A 7 percent
- B 11 percent
- C 10 percent
- D 14 percent

23. Using the SSI Combined Air/EANx tables plan the following dives to determine the final group after the second dive. Using EAN36, Dive No. 1 to 72ft/22m to the maximum allowable no-decompression limit, followed by a one hour surface interval. Dive No. 2 to 70ft/21m, for the maximum allowable no-decompression limit.

- A I
- B G
- C H
- D F

24. Two divers want to make two dives photographing a shipwreck at 101ft/31m using EAN30. They want 20 minutes bottom time on the first dive and need a two hour surface interval to change film and have lunch. Plan the dives using the Equivalent Air Depths table and the SSI Doppler No-Decompression Limits Air tables to determine the maximum adjusted no decompression limit for the second dive.

- A 11
- B 9
- C 14
- D 16

25. Using the two dives in question 24, calculate the CNS “Clock” exposures to determine the total exposure for the two dives.

- A 12 percent
- B 16 percent
- C 19 percent
- D 15 percent