



Certification Boulevard

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Test Your Knowledge of Miscellaneous Wastewater Treatment Topics

1. The typical new residential home with an in-ground sprinkler system utilizes approximately 400 gpd of potable water for all uses (indoor and outdoor). The irrigation fraction of the domestic use is 50 percent of the total. Which of the following options provides the best method of water conservation?
 - A. Provide reclaimed water supply to each of these types of residential customers.
 - B. Install low-flush toilets to reduce the total indoor use.
 - C. Install low-flow fixtures throughout the house to reduce the total residential demand.
 - D. All of the above will provide daily water savings.
2. What does the term *absorption* mean?
 - A. Impregnate a liquid with air.
 - B. Taking one substance into the body of another.
 - C. To gather onto the surface of a substance.
 - D. Stick like fly paper.

3. Which type of solid is typically the highest percentage in the total solids profile of raw wastewater?
 - A. Suspended
 - B. Dissolved
 - C. Colloidal
 - D. Settleable
4. What is another term for organic solids?
 - A. Volatile
 - B. Non-Volatile
 - C. Dissolved
 - D. Soluble
5. What is the term when ammonia-N and organic-N are added together?
 - A. TKN
 - B. SON
 - C. TN
 - D. NOx
6. What is the closest hydraulic loading equivalent in domestic wastewater?
 - A. About 1.0 lb TSS per capita per day
 - B. About 1.17 lbs CBOD₅ per capita per day
 - C. About 100 to 150 gallons per capita per day
 - D. About 20 to 27 lbs NH₃ per capita per day
7. What is the term when chlorine reacts with ammonia and forms chloramines?
 - A. Nitrification
 - B. Combined Residual
 - C. Breakpoint Chlorination
 - D. Oxidation Reduction Potential
8. What is the term when ammonia-N, nitrate-N and nitrite-N are added together?
 - A. TKN
 - B. SON
 - C. TN
 - D. TIN

9. Given the following data, calculate the Oxygen Uptake rate (OUR) in mg/L/hr.
 - Beginning D.O. is 7.2 mg/L
 - Ending D.O. is 4.5 mg/L
 - Test Time is 10 minutes
 - A. 27.5 mg/L/hr
 - B. 16.2 mg/L/hr
 - C. 35.8 mg/L/hr
 - D. 9.2 mg/L/hr
10. Select the closest oxygen demand value, in pounds of O₂ for each pound of CBOD₅ oxidized or converted:
 - A. 0.1 to 0.5
 - B. 0.8 to 1.2
 - C. 4.0 to 5.0
 - D. 5.0 to 10.0

ANSWERS ON PAGE 58.

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Do you have a question or an exercise you would like to feature in "Certification Boulevard?" We'll be glad to publish it. Just send your question (with the answer) or your exercise (with the solution) to:

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There is no limit to the number of questions or exercises you may submit. Please include your name, city, and organization or company so we can give you credit.