



Certification Boulevard

Test Your Knowledge of Water Resources Management ... And Other Miscellaneous Wastewater Treatment Topics

1. What does the term aliquot mean:
 - A. Composite sample
 - B. Grab sample
 - C. The total volume of sample
 - D. A portion of a sample

2. In today's environmentally conscious business/industrial community stormwater management is a primary concern. Name four (4) primary components of a facility stormwater management program.

3. What is the closest loading equivalent in domestic wastewater?
 - A. About 1.0 lb TSS per capita per day
 - B. About 0.17 lbs CBOD₅ per capita per day
 - C. About 500 to 750 gals per capita per day
 - D. About 5.0 to 7.5 lbs NH₃ per capita per day

4. Given the following data, how much alkalinity is required to accomplish nitrification?
 - Influent Flow is 0.59 mgd
 - Influent TKN is 35 mg/L
 - Effluent NH₃ value is 0.75 mg/L
 - 90% of TKN will become NH₃ to be nitrified
 - SCBOD₅ removal is 98%
 - 7.14 lbs of alkalinity consumed per lb of ammonia converted
 - A. 1,300 lbs
 - B. 1,107 lbs
 - C. 1,080 lbs
 - D. 1,356 lbs

5. Which types of bacteria are responsible for conversion of ammonia in wastewater?
 - A. Facultative
 - B. Heterotrophic
 - C. Anaerobic
 - D. Autotrophic

6. Which types of bacteria are responsible for converting NO_3 to N_2 ?
- A. Heterotrophic
 - B. Nitrosomonas
 - C. Nitrobacter
 - D. Anaerobic
7. Given the following data, what is the daily volume of WAS (gpd) to be removed in this activated sludge process?
- Aeration Tank Dimensions: 100 ft long, 35 ft. wide and 14.5 ft. deep
 - MLSS Concentration is 2,750 mg/L
 - Mixed Liquor is 79% Volatile
 - Desired MLSS Inventory is 7,750 Lbs
 - WAS Concentration is 7,500 mg/L
- A. 8,706 gals/day
 - B. 15,284 gals/day
 - C. 123,900 gals/day
 - D. 956 gals/day
8. What is the term that describes the combination of ammonia-nitrogen, nitrate-nitrogen and nitrite-nitrogen?
- A. Total Nitrogen (TN)
 - B. Total Soluble Nitrogen (TSN)
 - C. Total Kjeldahl Nitrogen (TKN)
 - D. Total Inorganic Nitrogen (TIN)
9. 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
10. What is another term for inorganic solids?
- A. Volatile
 - B. Non-Volatile
 - C. Dissolved
 - D. Soluble

Please forward your comments and sample questions for publication to:

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