



Certification Boulevard

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

1. What does the term adsorption mean?
 - A. Impregnate a liquid with air
 - B. The taking in of one substance in the body of another
 - C. To gather onto the surface of a substance
 - D. Soak like a sponge

2. In today's environmentally conscious business/industrial community storm water management is a primary concern. Name four (4) primary components of a facility storm water management program.
 - (1) _____
 - (2) _____
 - (3) _____
 - (4) _____

3. What type of solids cannot be removed with standard effluent filters?
 - A. Settleable
 - B. Suspended
 - C. Total
 - D. Dissolved

4. Which types of bacteria are responsible for converting nitrite-N to nitrate-N in the Nitrification process?
 - A. Nitrosomonas
 - B. Nitrobacter
 - C. Carbon Eaters
 - D. Heterotrophic

5. Given the following data, how much alkalinity is required to accomplish nitrification?
 - Influent Flow is 1.25 mgd
 - Influent NH_3 is 24.5 mg/L
 - CBOD_5 removal is 2,346 lbs/day
 - 7.2 lbs of alkalinity consumed per lb of ammonia converted
 - Effluent NH_3 is 0.5 mg/l
 - A. 1,801 lbs
 - B. 9,160 lbs
 - C. 250 lbs
 - D. 1,655 lbs

6. Given the following data, what is the daily volume of WAS to be removed?
- Three (3) aeration tanks, each 140 ft long, 40 ft wide, 15 ft SWD
 - Aeration MLSS 3,000 mg/L
 - WAS concentration 8,500 mg/L
 - Desired SRT 18 days
- A. 0.01232 mgd
B. 7,439 gals/day
C. 0.03696 mgd
D. 15,333 gals/day
7. 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
8. What is the term called when all forms of chlorine demand have been satisfied, and every ppm of chlorine feed becomes a ppm of free chlorine residual?
- A. Chloramines
B. Combined Residual
C. Breakpoint Chlorination
D. ORP
9. What is another term for inorganic solids?
- A. Volatile
B. Non-Volatile
C. Dissolved
D. Soluble
10. What is the term when nitrite-N and nitrate-N are added together?
- A. TKN
B. SON
C. TN
D. NO_x

Please forward your comments and sample questions for publication to:

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**Question No.2 was provided by Shane Benner, Plant Manager – City of Orlando
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