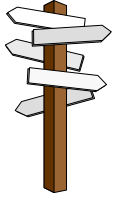


Certification Boulevard



Test Your Knowledge of Miscellaneous Topics

1. What percent of suspended solids is typically removed in a primary clarifier?
 - a. 20 to 25%
 - b. 100%
 - c. 50 to 60%
 - d. 75 to 85%

2. What typically happens to the ORP of final effluent when the ammonia concentration in the effluent decreases?
 - a. The ORP value increases
 - b. The ORP value decreases
 - c. The ORP value remains the same
 - d. Ammonia concentration has nothing to do with ORP values

3. Which bacteria is responsible for converting nitrite to nitrate?
 - a. Heterotrophic
 - b. Nitrosomonas
 - c. Nitrobacter
 - d. Facultative

4. What is the liquid effluent called that is removed from an anaerobic digester?
 - a. Filtrate
 - b. Centrate
 - c. Supernatant
 - d. Subnatant

5. Which factors affect the operation of an aerobic digester?
 - a. Detention time
 - b. Temperature
 - c. Oxygen transfer efficiency
 - d. Dissolved oxygen level
 - e. All of the above

6. What problems can grit cause in treatment process units if it is not removed from the influent flow?
 - a. Erosion of valve seats
 - b. Take up valuable space in tanks
 - c. Erosion of pipe and elbows
 - d. Damage pump impellers
 - e. All of the above

7. Which factors generally affect the amount of sludge that can be applied to a land application site?
- Nitrogen and heavy metals
 - Carbon and chlorides
 - Phosphorus and alkalinity
 - pH and CBOD₅
8. Given the following data, how many total gals/day of sludge are removed from a primary clarifier using a triple piston pump?
- Piston diameter is 12 inches
 - Piston length is 14 inches
 - Piston speed is 35 spm
 - Total run time is 250 mins/day
- 59,941 gpd
 - 65,670 gpd
 - 119,883 gpd
 - 179,824 gpd
9. Given the following data, what is the pressure equivalent expressed in psi delivered by this pump?
- Pump discharges 1,000,000 gpd
 - Total dynamic head (TDH) of 250 feet
- 235 psi
 - 108 psi
 - 85 psi
 - 577 psi
10. Given the following data, how many gpd of WAS are removed from this activated sludge facility?
- Aeration volume is 570,000 gallons
 - MLVSS is 3,125 mg/L
 - Mixed liquor is 75% volatile
 - WAS TSS is 9,500 mg/L
 - Desired SRT is 20 days
- 0.123 mgd
 - 59,267 gpd
 - 12,335 gpd
 - 25,981 gpd