



Certification Boulevard

Test Your Knowledge of Collections & Distribution

1. Which may be the most appropriate chemical to use in a wet scrubber treating high levels of hydrogen sulfide?
 - A. Sodium hydroxide
 - B. Sulfuric acid
 - C. Unchlorinated water
 - D. Polymer

- (submitted by John Lomberk, Civil Engineer III, City of Orlando Wastewater Bureau)
2. Given the following data, what is the detention time in this 24-inch diameter forcemain?
 - 14,700 feet long
 - 3,000 gpm pump capacity
 - Pumping cycle is 6 minutes ON and 5 minutes OFF
 - A. 2 hours 4 minutes
 - B. 212 minutes
 - C. 4 hours 5 minutes
 - D. 213 minutes

3. What device is used in a wastewater pipeline to prevent flow from traveling in both directions?
 - A. Plug valve
 - B. Siphon inducer
 - C. Flap gate
 - D. Pinch valve

4. Given the following data, how many cubic yards of backfill are needed to fill a trench?
 - 9.25 feet wide
 - 28 yards long
 - 6.5 feet deep
 - A. 62 yd³
 - B. 257 yd³
 - C. 959 yd³
 - D. 187 yd³

5. Waste leaking out of a collection system pipe, and into the environment, is called infiltration. *True or False*

6. What type of machine is used to construct collection system pipelines when they are too difficult for trench excavations?
- A. Pig
 - B. TV Device
 - C. Boring Machine
 - D. Backhoe Machine
7. Which type of sewer system contains both sanitary wastewater and storm water?
- A. Domestic wastewater system
 - B. Combined sewer system
 - C. Separate collection system
 - D. Sewer system evaluation survey
8. Given the following data, what is the capacity of this wet well?
- wet well diameter is 20 feet
 - bottom elevation of wet well is 72.5 feet
 - top elevation of wet well is 91.4 feet
- A. 177,563 gallons
 - B. 23,738 ft³
 - C. 332,043 ft³
 - D. 44,391 gallons
9. What is the minimum velocity in a sanitary sewer pipeline necessary to prevent settling of solids and debris?
- A. 1 fps
 - B. 0.5 fps
 - C. 2 fps
 - D. 2 fpm
10. Which gases may be found in sewer collection systems?
- A. Explosive gases
 - B. Hydrogen sulfide
 - C. Methane
 - D. All of the above