

Final Exam
Continuing Education Course #378
Water Storage Tanks

1. Which of the following is NOT a typical purpose of a water storage tank?
 - ☐ a. Increase reliability of drinking water system
 - ☐ b. Receive water from a larger tank
 - ☐ c. Store water for fire demands
 - ☐ d. Normalize flow rates
2. How does an elevated water storage tank provide pressure to the distribution system?
 - ☐ a. With a large volume of water
 - ☐ b. Holding pressurized water in the tank
 - ☐ c. With a height of water above grade
3. What is the most common industry standard for the design of water system components?
 - ☐ a. Ten States Standards
 - ☐ b. NFPA 25
 - ☐ c. AWWA Standard C652
4. After constructing a new tank for finished water, what is required prior to placing it in service?
 - ☐ a. Regular inspection
 - ☐ b. Disinfection
 - ☐ c. Architectural features
5. Which of the following is NOT a type of water storage tank?
 - ☐ a. Elevated Storage Tank
 - ☐ b. Ground Storage Tank
 - ☐ c. Sherman Tank
6. What is the unit cost for a 4 million gallon tank that costs \$2 million dollars to construct?
 - ☐ a. \$0.50 per gallon
 - ☐ b. \$2.00 per gallon
 - ☐ c. \$4.00 per gallon
7. Which of the following is a benefit to a low surface to volume ratio?
 - ☐ a. Allows higher pressure water
 - ☐ b. Requires less frequent inspection
 - ☐ c. Lower construction cost
8. What is the water pressure at grade due to tank with a height of 100 feet measured from the water surface to grade?
 - ☐ a. 231 psi
 - ☐ b. 100 psi
 - ☐ c. 43 psi

9. What is the minimum pressure required in a typical water distribution system?

- ☐ a. 10 psi
- ☐ b. 20 psi
- ☐ c. 40 psi

10. What is the minimum required storage volume according to the Ten States Standards (not including fire flow demand)?

- ☐ a. Volume must be equal or greater than the minimum daily consumption
- ☐ b. Volume must be double the average daily consumption
- ☐ c. Volume must be equal or greater than the average daily consumption

11. When calculating the demand storage volume, which of the following four factors should be taken into account?

- ☐ a. Flow equalization, fire flow demand, emergency reserve, and dead storage
- ☐ b. Water pressure, fire flow demand, emergency reserve, and dead storage
- ☐ c. Flow equalization, fire flow demand, emergency reserve, and live storage

12. Dead storage at the bottom of a tank is due to which of the following?

- ☐ a. To prevent entrained air from entering the outlet pipe
- ☐ b. For additional fire flow demand
- ☐ c. To decrease water age

13. Which is a common type of mixing system in a water storage tank?

- ☐ a. Batch mixing system
- ☐ b. Static mixing system
- ☐ c. Passive mixing system

14. Which of the following is NOT a typical tank feature?

- ☐ a. Vent
- ☐ b. Drain
- ☐ c. Pump
- ☐ d. Level sensor

15. Which is considered the most important factor in water quality deterioration?

- ☐ a. Overflow events
- ☐ b. Wall penetrations
- ☐ c. Water age