

## Distribution Practice Exam

- In general, pressure levels in a distribution system should range between:
  - 10 psi to 65 psi.
  - 15 psi to 75 psi.
  - 35 psi to 100 psi.
  - Pressure throughout the system is not important.
- The hydraulic gradient line:
  - Always slopes downward in the direction of flow.
  - Does not exist in a distribution system.
  - Is path that water avoids.
  - Always goes against the direction of flow.
- When trying to achieve optimal water quality in a distribution system, it is important to:
  - Eliminate all dead end mains.
  - Flush the system on a regular basis.
  - Eliminate cross-connections.
  - All of the above.
- The type of horsepower which provides energy to the pump from the motor is:
  - Water Horsepower.
  - Brake Horsepower.
  - Motor Horsepower.
  - None of the above.
- The overall efficiency of the pump and motor is known as:
  - Water to Water Efficiency
  - Wire to Water Efficiency
  - Wire to Wire Efficiency
  - Water to Motor Efficiency
- The total height that the pump must lift the water when moving it from one point to another or the vertical distance from the suction free water surface to the discharge free water surface:
  - Static Discharge Head
  - Static Suction Lift
  - Static Suction Lift
  - Total Static Head
- Which type of meter is usually found in household applications?
  - Displacement
  - Velocity
  - Compound
  - Single

8 Which type of “chlorine” is granular and contains approximately 67% available chlorine?

- A. Sodium Hypochlorite
- B. Sodium Hydroxide
- C. Calcium Hypochlorite
- D. Chlorine Gas

9. To determine how many gallons of water are in a storage facility you will need:

- A. Length and width of the storage facility.
- B. Water Depth within the storage facility.
- C. Both A and B

10. When a valve position is changed quickly, the water pressure in a pipe will increase and decrease back and forth very quickly. This rise and fall in pressure can cause serious damage to the system. This occurrence is commonly referred to as?

- A. Surge Chamber
- B. Water Hammer
- C. Backflow
- D. Backsiphonage

11. Liquid chlorine or gas, calcium hypochlorite and \_\_\_\_\_ are commonly used as disinfectants. There are several methods, which can be used to disinfect a water storage facility.

- A. Sodium Hypochlorite
- B. Sodium Dioxide
- C. Sulfur Dioxide

12. While water sampling, you have a POSITIVE BACTERIOLOGICAL SAMPLE, this means that there is?

- A. Absence of bacteriological contamination
- B. Presence of bacteriological contamination
- C. Presence of nitrates

13. This type of valve is used in the water distribution system to isolate sections of mains to permit the making of emergency repairs to be made without interruption of service to a large number of customers.

- A. Ball
- B. Butterfly
- C. Gate
- D. Plug
- E. None of the above

14. \_\_\_\_\_ allow large quantities of air to escape while filling a pipeline, permit air to enter a pipeline that is being drained, and allow entrained air to escape while a line is operating under pressure.
- A. Air relief valves
  - B. Double check
  - C. RP
  - D. Vacuum Breaker
15. Breakpoint Chlorination is best described as?
- A. Chlorine is added until the desired free chlorine residual is achieved.
  - B. Chlorine is added until all microorganisms are killed.
  - C. Chlorine is added until all organic material is destroyed.
  - F. Chlorine is added until chloramines are formed.
16. Which of the following best describes the effect of temperature on chlorine disinfection effectiveness in water?
- A. Low temperatures decrease the effect of chlorine disinfection.
  - B. High temperatures decrease the effect of chlorine disinfection.
  - C. Temperature has no effect on chlorine.
  - D. None of the above
17. \_\_\_\_\_ is described as the vertical distance equal to the pressure at a specific point in a hydraulic system.
- A. Pressure Head
  - B. Pressure Velocity
  - C. Backpressure
18. Why are lead pipe service connections no longer allowed to be installed?
- A. Lead corrodes fixtures.
  - B. Lead can enter the water.
  - C. Lead is expensive.
  - D. Lead is very heavy and OSHA has set a weight limit on workers.
19. The purpose of shoring is to?
- A. Slow production time.
  - B. Prevent the walls of a trench from collapsing.
  - C. To help the slower operators get out of a collapsing trench, while I jump over them.
  - D. Prevent pipe joints from moving during backfilling.
20. Disease causing organisms such as bacteria and viruses are better known as?
- A. Fecal
  - B. Pathogens
  - C. Carcinogens
  - D. Protozoa
  - E. None of the above

21. In which category would a Gate Valve be classified?
- A. ASME approved Rotary.
  - B. MSDS approved Diaphragm.
  - C. PETA approved Globe.
  - D. None of the above
22. The most common reason for public water supply contamination is the following?
- A. Backflow or Cross-Connections
  - B. Backwater
  - C. Improper Sampling
  - D. Backhoes
23. Maintaining a continuous positive pressure in the distribution system is essential for preventing?
- A. Backflow conditions.
  - B. Back water.
  - C. Taste and odors.
  - D. Scale.
24. As chlorine is added to water containing organic and inorganic compounds, the chlorine will combine with these compounds. If the operator continues to add chlorine, the reaction with these compounds will stop. At this point, the operator is said to have satisfied the?
- A. Chlorine Residual
  - B. Chlorine Dosage
  - C. Chlorine Percentage
  - D. Chlorine Demand
  - E. All of the above
25. Effective operation of a water storage facility includes maintaining \_\_\_\_\_, and recognizing water use patterns and planning accordingly.
- A. Adequate water levels
  - B. 100 PSI
  - C. A zero safety policy
  - D. Fire Hydrants