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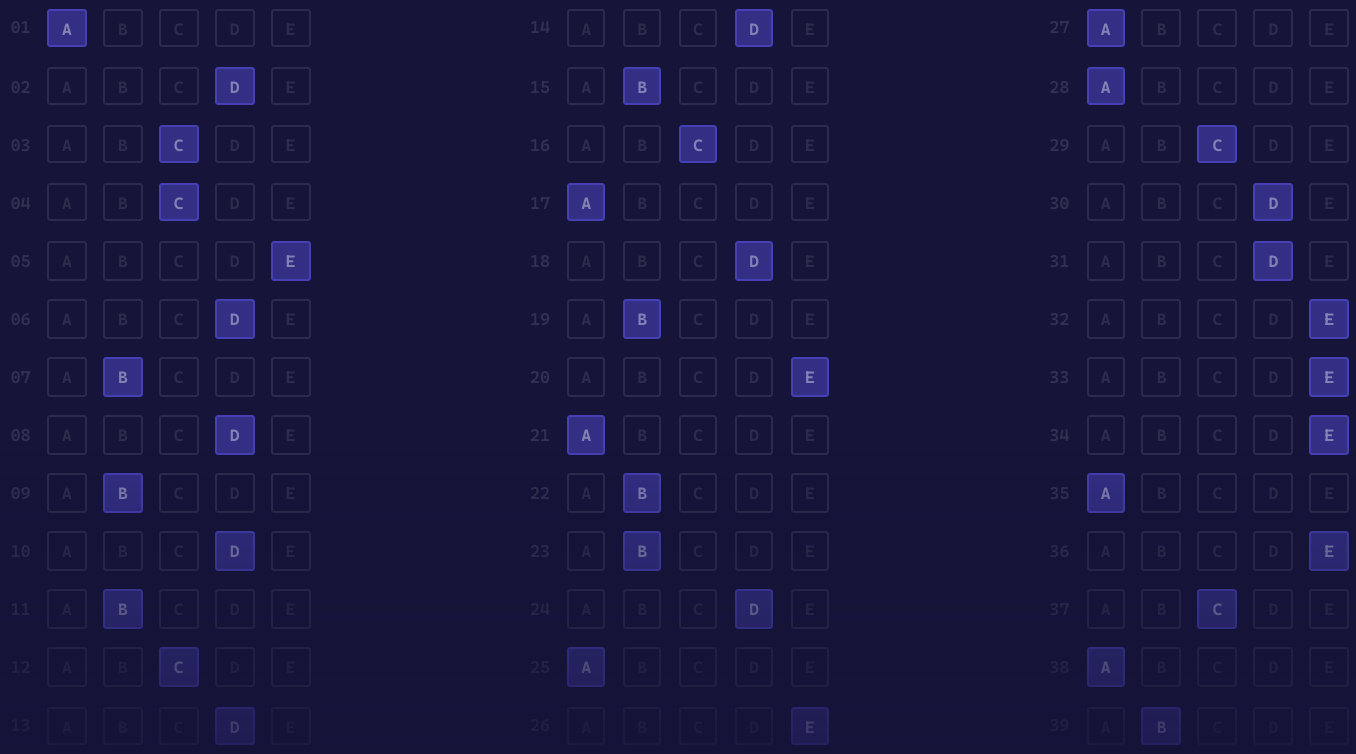

PRACTICE QUESTIONS

Arkansas Drinking Water Program

DLPT22JW

Arkansas Water Distribution Grade 2

EDITION	QUESTIONS	FORMAT
Demo	9	Limited Edition PDF

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Before you begin

What this is

9 practice questions for Arkansas Drinking Water Program `DLPT22JW`, each with its answer key and an explanation. Answer a question before you read its key — the explanation is worth more once you have committed.

If something looks wrong

Send us three things and we will check it:

- the exam code, `DLPT22JW`
- the question number
- the email address on your order

Write to **support@mometrix.net**. We reply within one business day.

QUESTION 1 SINGLE CHOICE

When operating a fire hydrant during flushing, a distribution operator should fully open the hydrant valve:

A partially to avoid water hammer, then finish opening slowly after flow is established

B fully and rapidly so the flow reaches its full capacity

C only after notifying the local fire department in writing

D only during off-peak hours to minimize customer disruption

ANSWER B

WHY Standard AWWA and state distribution guidance calls for opening a hydrant fully and rapidly, then closing it slowly to control flow and reduce the risk of water hammer. Opening slowly can actually increase surge risk and does not flush the line as effectively.

QUESTION 2 SINGLE CHOICE

A water main is 8 inches in diameter and 2,000 feet long. Using 7.48 gallons per cubic foot, what is the approximate volume of water contained in the main when full?

A About 5,225 gallons

B About 1,306 gallons

C About 16,720 gallons

D About 4,180 gallons

ANSWER A

WHY Volume = π × r^2 × length. Radius = 4 in ≈ 0.333 ft. Cross-section ≈ 0.349 ft^2. Length 2,000 ft gives ≈ 698 ft^3. At 7.48 gal/ft^3, that is roughly 5,225 gallons. This type of main-volume calculation is a typical distribution math problem.

QUESTION 3 SINGLE CHOICE

The primary purpose of an air-vacuum relief valve on a distribution main is to:

A prevent contaminated water from entering the main during a pressure drop

B admit air during draining and release accumulated air during filling

C maintain a constant pressure regardless of demand

D reduce chlorine residual loss in the pipeline

ANSWER B

WHY Air-vacuum relief valves serve two related functions: they admit air when a main is being drained so that the line does not develop a vacuum, and they release trapped air during filling. Their purpose is air management, not contamination control or pressure regulation.

QUESTION 4 SINGLE CHOICE

Under Arkansas Department of Health procedures, the minimum chlorine residual for disinfecting a new or repaired water main using the tablet method and a 24-hour contact time is:

A 10 mg/L

B 25 mg/L

C 50 mg/L

D 100 mg/L

ANSWER B

WHY AWWA Standard C651 and Arkansas adoption specify a minimum free chlorine residual of 25 mg/L after a 24-hour contact period for the tablet method. Higher initial dosages (such as 50 or 100 mg/L) are used for shorter contact times or the slug method, not for the standard 24-hour tablet procedure.

QUESTION 5 SINGLE CHOICE

An auxiliary water supply, such as a private well, that is connected to a potable water line through a single check valve creates which type of cross-connection?

A An atmospheric vacuum breaker connection

B A high-hazard cross-connection

C A low-hazard cross-connection

D A pressure vacuum breaker connection

ANSWER B

WHY Any connection that could introduce a contaminant into the potable supply is a high-hazard cross-connection and requires a reduced-pressure principle (RP) backflow preventer, not a simple check valve. An auxiliary source like a well is considered high hazard because the contaminant would be non-potable in nature.

QUESTION 6 SINGLE CHOICE

Which storage facility operating practice is most important for maintaining water quality in a ground-level or elevated distribution storage tank?

A Filling the tank completely and then draining it dry once a year

B Operating the tank so that water turns over routinely and residuals are monitored

C Keeping the tank at full capacity at all times to maximize pressure

D Painting the interior whenever the water becomes discolored

ANSWER B

WHY Maintaining water quality in a storage tank depends on regular turnover so that water does not stagnate, along with monitoring of chlorine residuals. Repeatedly filling and draining, or holding the tank full continuously without turnover, both create water quality problems.

QUESTION 7 SINGLE CHOICE

A distribution operator observes repeated main breaks shortly after a pump is shut down. Which condition is the most likely cause?

A Normal gravitational flow reversing through the main

B Water hammer caused by the sudden stoppage of flow

C Air entrainment releasing through service connections

D Routine thermal expansion of the pipe wall

ANSWER B

WHY Sudden valve closure or pump shutdown can generate a pressure surge (water hammer) that exceeds the working pressure of the main and causes breaks. Common prevention methods include slow-closing valves, surge-control valves, and pump check valves with controlled closing times.

QUESTION 8 SINGLE CHOICE

Before an operator enters a below-grade valve vault, the most important atmospheric hazard to test for is:

A elevated dissolved oxygen

B reduced humidity

C oxygen deficiency and the presence of toxic or explosive gases

D excessively low carbon dioxide

ANSWER C

WHY Confined-space entry procedures (29 CFR 1910.146) require testing the atmosphere for oxygen deficiency, flammability, and toxic gases such as hydrogen sulfide before entry and continuously while the space is occupied. Excessively low or high oxygen, not elevated oxygen, is the concern.

QUESTION 9 SINGLE CHOICE

A routine check on a distribution system gate valve reveals that the operating nut turns, but the valve will not fully close. The most likely cause is:

A a normal condition requiring no action

B **debris lodged in the valve or a damaged seat/disc**

C excessive system pressure that must be reduced first

D the valve being installed on the wrong end of the main

ANSWER **B**

WHY A gate valve that turns but does not fully shut off is typically obstructed by tuberculation, debris, or a worn seat/disc. Such valves should be cleaned, repaired, or scheduled for replacement as part of the routine valve-exercise program.