

01	☐ A	☐ B	☐ C	☐ D	☐ E
02	☐ A	☐ B	☐ C	☐ D	☐ E
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37	☐ A	☐ B	☐ C	☐ D	☐ E
38	☐ A	☐ B	☐ C	☐ D	☐ E
39	☐ A	☐ B	☐ C	☐ D	☐ E

PRACTICE QUESTIONS

California - Nevada Section American Water Works Association

BM Y5N3F2

CA-NV AWWA BPAT Recertifying Candidate Combined

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for California - Nevada Section American Water Works Association BMY5N3F2, 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, BMY5N3F2
- the question number
- the email address on your order

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

QUESTION 1

SINGLE CHOICE

An installation of a reduced pressure principle backflow prevention assembly (RP) must include which of the following clearances to comply with CA-NV AWWA standards and the USC Manual of Cross-Connection Control?

- ☐ **A** At least 6 inches clearance on all sides and 12 inches above the assembly
- ☒ **B** At least 12 inches clearance on the back and sides and 24 inches above the assembly, with adequate clearance in front for testing and repair
- ☐ **C** At least 24 inches on the back, 12 inches on the sides, and 6 inches above the assembly
- ☐ **D** A minimum of 36 inches clearance on all sides with no requirement above

ANSWER B

WHY The USC Manual of Cross-Connection Control (the basis for CA-NV AWWA backflow tester certification) requires adequate clearances so the assembly can be tested, maintained, and repaired. The standard minimum clearance is 12 inches on the back and sides and 24 inches above the assembly, plus sufficient room in front for the tester to perform annual tests and access repair ports. Option A understates these clearances, option C reverses typical guidance for above-versus-back, and option D overstates side clearance.

QUESTION 2

SINGLE CHOICE

When installing a reduced pressure principle backflow prevention assembly (RP), the relief valve discharge must be:

- ☐ A Connected directly to a floor drain with no air gap required
- ☒ B Terminated with an air gap at least twice the diameter of the relief valve opening, but not less than 1 inch
- ☐ C Plumbed to a sanitary sewer using a closed pipe with a backwater valve
- ☐ D Discharged through a check valve to prevent reverse flow

ANSWER B

WHY The RP relief valve must discharge with a visible air gap equal to at least twice the diameter of the relief outlet, but never less than 1 inch. This air gap prevents the discharge from being submerged and ensures the assembly's relief port can function properly. Direct connection without an air gap (A) is prohibited because it could create a submerged outlet and a potential cross-connection. A closed piped connection (C) and a check valve on the discharge (D) both defeat the purpose of the relief port and are not permitted.

QUESTION 3

SINGLE CHOICE

At what minimum height above the finished floor must a pressure vacuum breaker assembly (PVB) or spill-resistant pressure vacuum breaker (SVB) be installed?

- ☐ A At least 6 inches above the highest downstream piping
- ☒ B At least 12 inches above the highest downstream point of use
- ☐ C At least 24 inches above the highest downstream point of use
- ☐ D There is no minimum height requirement

ANSWER B

WHY PVB and SVB assemblies must be installed at least 12 inches above the highest downstream point of water use. This elevation is what allows the air inlet valve to open and break any back-siphonage condition. Six inches is insufficient, 24 inches applies to atmospheric vacuum breakers (AVB) installed downstream of the shutoff valve, and there is indeed a minimum height requirement, so 'none' is incorrect.

QUESTION 4

SINGLE CHOICE

Which of the following backflow prevention assemblies is approved for installation in a pit or vault subject to flooding?

- ☐ A Reduced pressure principle backflow prevention assembly (RP)
- ☐ B Pressure vacuum breaker assembly (PVB)
- ☒ C Double check valve assembly (DC)
- ☐ D Atmospheric vacuum breaker (AVB)

ANSWER C

WHY Of the standard assemblies, only the double check valve assembly (DC) and double check detector assembly (DCDA) are approved for installation in vaults or pits that may be subject to flooding. The RP cannot be installed in a pit because its relief valve could become submerged, creating a cross-connection. PVB and AVB both rely on an air inlet that would be compromised under water and must be installed above grade where they will not be submerged.

QUESTION 5

SINGLE CHOICE

Back-siphonage is caused by which of the following hydraulic conditions?

- ☐ A An increase in downstream pressure above the upstream supply pressure
- ☒ B A reduction or negative pressure in the upstream supply piping
- ☐ C A closed downstream shutoff valve creating a static pressure rise
- ☐ D A booster pump on the customer side operating at higher pressure than the supply

ANSWER B

WHY Back-siphonage is caused by a negative or sub-atmospheric pressure in the upstream potable water supply — typically created by high downstream demand, a water main break, firefighting draw, or pump failure. The flow reversal is driven by the supply side, not by elevated downstream pressure. Options A, C, and D all describe backpressure conditions, where the customer-side pressure exceeds the supply pressure.

QUESTION 6

SINGLE CHOICE

A customer has a boiler with a closed-loop heating system pressurized by an expansion tank and a circulation pump. Which form of backflow is the boiler most likely to cause?

- ☐ A Back-siphonage only
- ☒ B Backpressure
- ☐ C Neither backpressure nor back-siphonage is possible because the system is closed
- ☐ D Both backpressure and back-siphonage are equally likely regardless of operation

ANSWER B

WHY A pressurized boiler loop with an expansion tank and pump can generate pressures on the customer side that exceed the potable supply pressure, producing backpressure backflow. Even though the loop is 'closed,' dissolved chemicals, corrosion inhibitors, and boiler treatment can contaminate the potable supply if a pressure-reversal event occurs. A closed loop does not eliminate backpressure potential; back-siphonage is not the primary concern here because it requires negative supply pressure rather than elevated downstream pressure.

QUESTION 7

SINGLE CHOICE

Under a typical CA-NV AWWA cross-connection control program, who is responsible for determining the degree of hazard (high or low) and selecting the appropriate backflow prevention assembly at a customer's premises?

- ☐ A The water customer at the premises
- ☐ B The certified backflow prevention assembly tester
- ☒ C The water supplier (purveyor) in cooperation with the cross-connection control program
- ☐ D The plumbing contractor who installed the assembly

ANSWER C

WHY The water supplier (purveyor) is ultimately responsible for protecting the public water system from contamination and therefore determines the degree of hazard and the required backflow protection at each service connection, often in coordination with local ordinances and the cross-connection control program. The customer cannot self-assess because they have a vested interest in lower-cost protection, the tester only verifies operation of installed assemblies, and the plumbing contractor installs per code but does not make the hazard determination.

QUESTION 8

SINGLE CHOICE

Which of the following conditions would be classified as a high hazard under a CA-NV AWWA cross-connection control program?

- ☐ A A residential bathroom sink with a single-handle faucet
- ☒ B An irrigation system using chemical fertilizer injection downstream of the backflow preventer
- ☐ C An irrigation system using potable water only with no chemical injection
- ☐ D A hose bibb on a residential service line used only for hand watering

ANSWER B

WHY An irrigation system with chemical injection (fertilizer, pesticide, or herbicide) introduces substances that could cause illness or death if they enter the potable supply, so it is classified as a high hazard and typically requires an RP assembly. An irrigation system without chemical injection is generally a low hazard, requiring at least a PVB or DC. Residential fixtures and hose bibbs without chemical additives do not by themselves constitute high hazards.

QUESTION 9

MULTIPLE CHOICE

During a field test of a 2-inch reduced pressure principle backflow prevention assembly (RP), which of the following procedures and observations are required by the USC Manual of Cross-Connection Control test procedures? (Choose three.)

- ☒ **A** Record the line pressure and verify the differential pressure relief valve stays closed under static line pressure
- ☒ **B** Open the #2 shutoff valve and slowly close the #1 shutoff valve to drop downstream pressure and verify the relief valve opens at or above 2.0 psid
- ☐ **C** Close the #2 shutoff valve, then open the high-control valve and low-control valve to bypass the assembly to check relief valve opening
- ☒ **D** Verify the differential pressure across check #1 does not drop below the manufacturer's listed minimum (typically 5 psid) when the #2 shutoff valve is closed
- ☐ **E** Tighten the test cocks with a pipe wrench before beginning any test to prevent leakage during the test sequence

ANSWER A • B • D

WHY Standard RP test procedure (per the USC Manual used by CA-NV AWWA) requires: (A) recording static line pressure and confirming the relief valve is closed under static conditions; (B) slowly closing the #1 shutoff to drop downstream pressure and verifying the relief valve opens at or above 2.0 psid; and (D) verifying that check #1 maintains a differential pressure at or above the manufacturer's minimum (typically 5 psid) when downstream pressure is relieved. (C) describes bypassing the assembly, which is not part of the test procedure and could introduce contamination. (E) tightening with a pipe wrench can damage the test cocks; only proper test cock adapters should be used.