

01	☐ A	☐ B	☐ C	☐ D	☒ E
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34	☐ A	☐ B	☐ C	☐ D	☒ E
35	☒ 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

ARIZONA REGISTRAR OF CONTRACTORS

QXGUBZEF

AZ C-54 Water Conditioning Equipment

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for ARIZONA REGISTRAR OF CONTRACTORS QXGUBZEF , 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, QXGUBZEF
- the question number
- the email address on your order

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

QUESTION 1

SINGLE CHOICE

Under the Arizona Registrar of Contractors (ROC) classification C-54 (Water Conditioning Equipment), which of the following best describes the scope of work authorized?

- ☒ **A** Installation, alteration, and repair of water softening, filtering, and purification equipment for residential and light commercial applications
- ☐ **B** Installation of municipal-scale water treatment plants and the chemical treatment of public drinking water
- ☐ **C** Fabrication and installation of copper and PVC plumbing supply lines inside buildings
- ☐ **D** Installation and service of commercial boilers, closed-loop hydronic systems, and steam heating equipment

ANSWER A

WHY The C-54 classification is limited to water conditioning equipment — softeners, filters, and similar point-of-use or point-of-entry treatment devices typically used in residential and light commercial settings. Municipal water treatment plants (B) fall under a different classification, plumbing pipe work (C) is covered by the C-37 plumbing classification, and boilers/hydronics (D) fall under C-39 (Air Conditioning, Refrigeration and Heating) or related classifications.

QUESTION 2

SINGLE CHOICE

An applicant is applying to qualify an Arizona ROC C-54 (Water Conditioning Equipment) license. Which statement about the qualifying party's experience requirement is correct?

- ☒ **A** The qualifying party must document at least four years of practical water conditioning equipment experience within the past ten years
- ☐ **B** The qualifying party must hold a current IWC (International Water Conditioning) master certification regardless of field experience
- ☐ **C** The qualifying party may substitute a college degree in mechanical engineering for all experience requirements
- ☐ **D** No experience is required if the qualifying party passes a written trade exam only

ANSWER A

WHY Arizona ROC requires a qualifying party for the C-54 classification to demonstrate practical experience — typically four years within the past ten years — in the trade. Specific third-party certifications, college degrees, or exam-only pathways are not accepted as full substitutes for documented trade experience.

QUESTION 3

SINGLE CHOICE

When installing a residential water softener in Arizona, which code reference is most directly relevant to the installation's drain and discharge requirements?

- ☒ **A** The Arizona Plumbing Code (based on the Uniform Plumbing Code / IPC as adopted by the jurisdiction)
- ☐ **B** The International Residential Code (IRC) fire-sprinkler provisions
- ☐ **C** The National Electrical Code (NEC) feeder calculation tables only
- ☐ **D** ASHRAE 90.1 commercial energy standard

ANSWER A

WHY Drain, discharge, and indirect-waste connections for water softeners are governed by the plumbing code adopted in the Arizona jurisdiction (commonly the Uniform Plumbing Code or IPC). The IRC sprinkler provisions, NEC feeder calculations, and ASHRAE 90.1 are unrelated to softener drain installation.

QUESTION 4

SINGLE CHOICE

A C-54 contractor enters into a written contract with a homeowner to install a reverse osmosis system for \$4,500. Under standard Arizona ROC residential contracting practices, which contract element is required?

- ☒ **A** A written notice of the right to cancel within three business days for work performed at the homeowner's residence
- ☐ **B** An automatic five-year workmanship warranty regardless of what is negotiated
- ☐ **C** A lien waiver signed by the homeowner before any work begins
- ☐ **D** Verification that the homeowner holds a current home warranty contract

ANSWER A

WHY Arizona law requires that residential contracts for goods or services performed at the homeowner's residence include a notice of the homeowner's right to cancel within three business days. The other items are not statutory requirements of the contract itself.

QUESTION 5

SINGLE CHOICE

A homeowner has water with a hardness of 25 grains per gallon (gpg). Which statement about salt-based ion exchange softening is correct?

- ☒ **A** The softener should be sized so that the resin capacity between regenerations exceeds the household's daily water usage to avoid hardness breakthrough
- ☐ **B** Grain capacity per cubic foot of resin is independent of salt dosage per regeneration
- ☐ **C** Ion exchange softening does not reduce clear-water iron content at any level
- ☐ **D** A higher salt setting always wastes more water regardless of softener design

ANSWER A

WHY Proper sizing requires that the usable grain capacity between regenerations be greater than the household's daily hardness load (hardness × gallons used). Resin capacity is in fact affected by salt dose, iron can be reduced to a limited extent, and salt efficiency can vary with control valve design — but the fundamental sizing rule (A) is the correct statement.

QUESTION 6

SINGLE CHOICE

Which type of point-of-entry filtration device is most appropriate for reducing chlorine taste and odor from municipal water entering a home?

- ☒ **A** Activated carbon filter
- ☐ **B** Sediment cartridge rated at 5 microns
- ☐ **C** Taste-and-odor aerator tank only
- ☐ **D** Reverse osmosis membrane alone

ANSWER A

WHY Activated carbon adsorption is the standard method for removing chlorine and many organic taste-and-odor compounds. Sediment cartridges target particulates, aerators alone don't effectively remove chlorine at residential scale, and RO wastes significant water and is typically used at point-of-use rather than point-of-entry.

QUESTION 7

SINGLE CHOICE

A C-54 technician is loading salt into a brine tank in a confined utility room. Which safety practice is most important?

- ☒ **A** Maintain adequate ventilation and avoid contaminating the area with salt dust that could damage adjacent equipment
- ☐ **B** Wear a self-contained breathing apparatus regardless of dust level
- ☐ **C** Mix the salt with chlorine bleach to disinfect the brine tank at every fill
- ☐ **D** Smoke-test the brine line with an open flame after each refill

ANSWER A

WHY Good ventilation and cleanliness around the brine tank prevent corrosion of nearby metal components and reduce dust exposure. The other options are unsafe or improper procedures and are not part of standard water conditioning practice.

QUESTION 8

SINGLE CHOICE

When a C-54 contractor connects a water softener drain line to a sanitary drain, which installation detail satisfies cross-connection / air-gap requirements under the plumbing code?

- ☒ **A** Provide an indirect waste connection with an air gap of at least two times the diameter of the discharge pipe above the flood rim of the receptor
- ☐ **B** Connect the softener drain line directly into a P-trap on a sink tailpiece with no air gap
- ☐ **C** Tie the brine discharge line into the potable supply line through a dual check valve only
- ☐ **D** Run the drain line into a floor sink with the discharge terminating below the flood rim

ANSWER A

WHY Plumbing codes require an indirect waste connection with a proper air gap so that drain water cannot siphon back into the potable system. Direct connections to sink tailpieces, cross-connections to potable lines, and sub-flood-rim terminations are all code violations.

QUESTION 9

MULTIPLE CHOICE

A C-54 contractor is preparing an estimate for a whole-house reverse osmosis system with a 500-gallon storage tank and permeate pump. Which items should typically be included in the written estimate? (Choose two.)

- ☒ **A** Itemized equipment list with model numbers, capacities, and warranty terms
- ☒ **B** Total labor hours with a breakdown for installation, start-up, and owner orientation
- ☐ **C** A copy of the homeowner's mortgage payment history
- ☐ **D** A notarized affidavit from the previous contractor who serviced the system

ANSWER A - B

WHY A professional estimate should itemize equipment (model, capacity, warranty) and break out labor by task so the customer can understand the scope and cost. Mortgage payment history and prior-contractor affidavits are not relevant estimate components.