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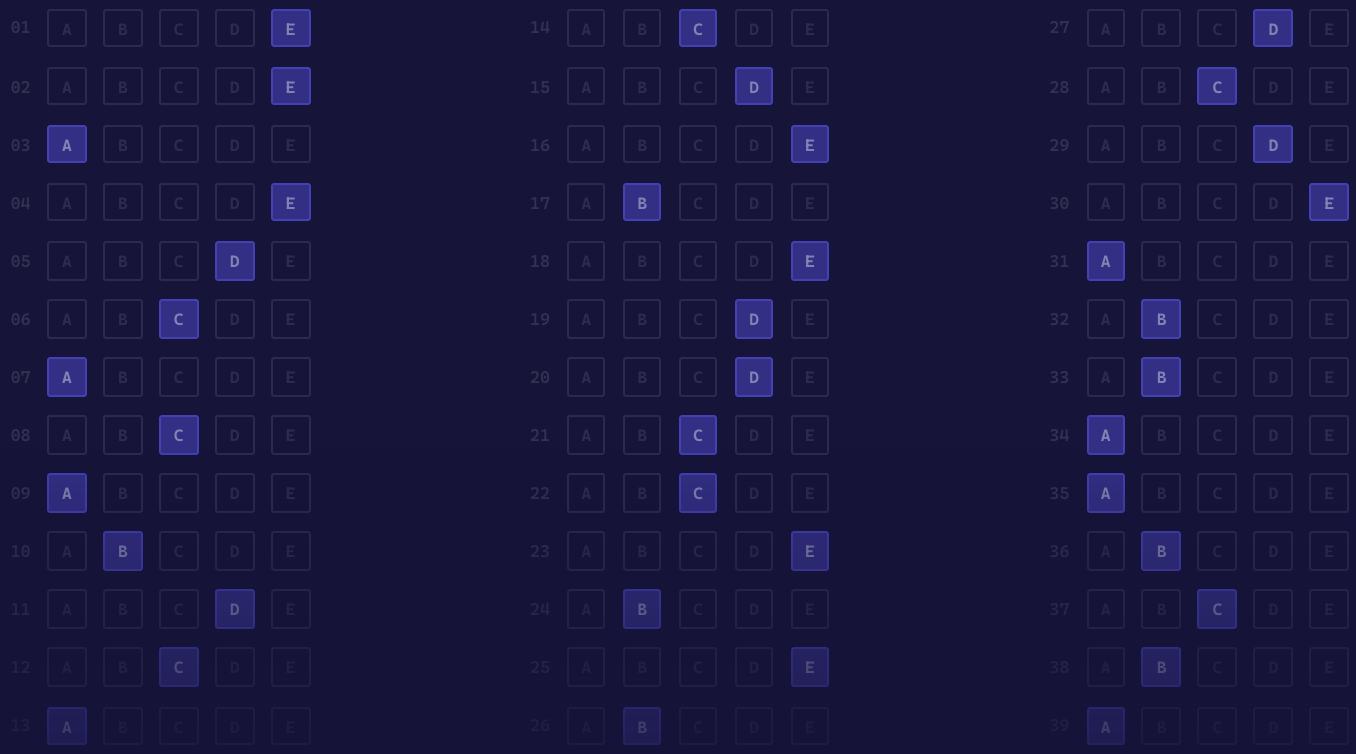

PRACTICE QUESTIONS

ALASKA MECHANICAL

G953MJRJ

AK Mechanical Administrator Unlimited Commercial and Industrial Plumbing

EDITION	QUESTIONS	FORMAT
Demo	9	Limited Edition PDF

WEB www.mometrix.net

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Before you begin

What this is

9 practice questions for ALASKA MECHANICAL `G953MJRJ`, 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, `G953MJRJ`
- the question number
- the email address on your order

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

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QUESTION 1 SINGLE CHOICE

Under Alaska's mechanical administrator program, which of the following best describes the role of a Mechanical Administrator (Unlimited Commercial and Industrial Plumbing)?

A A journeyman plumber who installs plumbing systems without supervision on residential jobs only

B **A licensed plumber responsible for overseeing the design, installation, and inspection of unlimited commercial and industrial plumbing work performed by a contracting firm**

C A state employee who audits plumbing contractors for tax compliance

D An apprentice who may pull permits on behalf of a contractor

E An individual who may only sign residential plumbing affidavits

ANSWER B

WHY An Alaska Mechanical Administrator for the Unlimited Commercial and Industrial Plumbing classification is the licensed individual responsible for overseeing plumbing work within the scope of that classification for a registered contracting firm. Options A, C, D, and E misrepresent the role: administrators are not journeymen limited to residential work, not state tax auditors, not apprentices, and the Unlimited classification is not restricted to residential affidavits.

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QUESTION 2 SINGLE CHOICE

When sizing a building drain for a commercial occupancy under the UPC as adopted in Alaska, which fixture unit (FU) value is generally assigned to a public water closet (flushometer type)?

A 2 FU on the cold water service only

B 3 FU drainage fixture unit (DFU)

C 4 FU on the water supply side

D 6 FU drainage fixture unit (DFU)

E 10 FU water supply fixture unit (WSFU)

ANSWER D

WHY Under the Uniform Plumbing Code (UPC), a public flushometer water closet is assigned 6 drainage fixture units (DFU) for DWV sizing. A private water closet is typically 4 DFU, and a public tank-type water closet is generally 4 DFU. Options A, B, and E mix water-supply fixture unit values with drainage values, which is incorrect for sizing a building drain. Option C is also a water-supply value, not a DFU.

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QUESTION 3 MULTIPLE CHOICE

A Mechanical Administrator is reviewing acceptable joint methods for a commercial DWV system. Which two of the following are code-acceptable methods for joining cast iron soil pipe in a commercial installation under the UPC as adopted in Alaska?

A **Compression gasketed joints using a hub-and-spigot coupling with an elastomeric gasket**

B **No-hub (hubless) joints using a shielded stainless-steel coupling and elastomeric sleeve**

C Solvent-welded (cemented) joints

D Lead and oakum caulked joints

E Heat-fusion (socket fusion) joints

ANSWER **A** · **B**

WHY Both compression gasketed hub-and-spigot joints (with an elastomeric gasket) and shielded no-hub (hubless) couplings with a stainless-steel band and elastomeric sleeve are listed in the UPC as acceptable methods for joining cast iron soil pipe. Solvent welding is used for PVC/CPVC, not cast iron. While lead-and-oakum caulking was historically used and may still be referenced for certain installations, it is not the modern standard method the UPC primarily calls out for new commercial DWV work. Heat-fusion is for plastic pressure pipe (e.g., PP, PE), not cast iron.

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QUESTION 4 SINGLE CHOICE

An administrator is specifying backflow protection for a commercial boiler make-up water line connected directly to the potable water supply. Which type of backflow preventer is generally required by the UPC for a high-hazard non-potable connection of this type?

A Atmospheric vacuum breaker (AVB)

B Hose bibb vacuum breaker

C Double-check valve assembly (DCVA)

D Reduced pressure principle backflow preventer (RPZ/RPDA)

E Pressure vacuum breaker (PVB)

ANSWER D

WHY A boiler make-up water line is considered a high-hazard cross-connection because the boiler may contain chemicals or be under positive pressure with non-potable fluids. The UPC requires a reduced pressure principle backflow preventer (RPZ/RPDA) for high-hazard connections. AVBs, hose bibb vacuum breakers, and PVBs are not suitable for continuous-pressure or high-hazard applications. A DCVA is acceptable only for low-hazard cross-connections.

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QUESTION 5 SINGLE CHOICE

Under the UPC, an island fixture trap is required to be vented by which of the following methods when a conventional vent through the roof is not practical?

A **A loop vent that rises vertically and returns down to the floor, terminating at an accessible cleanout**

B An air admittance valve (AAV) installed in any concealed location without access

C A wet vent sized only for the fixture trap

D A re-vent (relief vent) tied into the building trap arm only

E A drum trap with a single vent

ANSWER **A**

WHY The UPC provides a specific venting method for island fixtures: a loop vent that rises above the flood rim of the fixture and returns down to the floor where it ties back into the drainage system, terminating at an accessible cleanout. AAVs are permitted only where allowed by the local jurisdiction and must be accessible; they are not the prescribed island-fixture method. Wet venting has specific limitations and is not the standard island method. Drum traps are obsolete and prohibited for new installations.

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QUESTION 6 SINGLE CHOICE

Under the UPC as adopted in Alaska, what is the maximum permitted spacing between cleanouts in a horizontal building drain for commercial plumbing?

A 25 feet for pipes 4 inches and smaller; 50 feet for larger pipes

B 50 feet for pipes 4 inches and smaller; 100 feet for larger pipes

C 75 feet for pipes 4 inches and smaller; 150 feet for larger pipes

D 100 feet for all pipe sizes regardless of diameter

E Cleanouts are only required at the base of stacks and at the building drain exit

ANSWER B

WHY The UPC requires cleanouts in horizontal building drains at no more than 50 feet for pipes 4 inches in diameter and smaller, and no more than 100 feet for pipes larger than 4 inches. Cleanouts are also required at changes in direction, at the base of stacks, and at the building drain near where it exits the structure. Options A, C, and D misstate the spacing, and option E omits the in-line spacing requirement.

QUESTION 7 SINGLE CHOICE

An administrator is determining the water supply fixture unit (WSFU) load for sizing the cold water service to a commercial restroom group. What is the UPC WSFU value for a public flushometer urinal?

A 1 WSFU

B 2 WSFU

C 4 WSFU

D 6 WSFU

E 10 WSFU

ANSWER C

WHY Under the UPC water-supply sizing tables, a public flushometer urinal is assigned 4 WSFU on the cold water branch (with a lower value on the hot side, since urinals typically use cold water only). Option B (2 WSFU) corresponds to a private flushometer urinal or certain lavatories. Options A, D, and E do not correspond to standard flushometer urinal values.

QUESTION 8 MULTIPLE CHOICE

Which of the following are responsibilities of the Unlimited Commercial and Industrial Plumbing Mechanical Administrator in Alaska? (Choose two.)

A **Ensuring that plumbing work performed by the contracting firm complies with the adopted plumbing code and approved plans**

B Personally performing every code inspection that the AHJ conducts on the firm's work

C **Affixing the administrator's registration/affidavit to permit applications as required by the Department of Labor and Workforce Development**

D Setting municipal tax rates for plumbing permits

E Waiving code requirements at the request of a building owner

ANSWER **A · C**

WHY The Mechanical Administrator is responsible for ensuring the firm's plumbing work complies with the adopted code and approved plans (option A) and for signing/affixing the required registration or affidavit on permit applications as required by Alaska's Department of Labor and Workforce Development regulations (option C). The administrator does not personally perform AHJ inspections (option B); those are conducted by the jurisdiction's inspector. Setting tax rates (option D) is a municipal function, and waiving code requirements (option E) is not permitted.

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QUESTION 9 SINGLE CHOICE

Under the UPC, indirect waste piping receiving discharge from fixtures such as commercial dishwashers, sterilizers, or steamers is generally required to terminate by which of the following methods?

A Direct connection to the building drain without an air gap

B Discharge through an air gap or air break into a properly trapped and vented receptor

C Termination inside a vent stack above the flood rim of the highest fixture

D Discharge into the sanitary system through a running trap only

E Termination into a sump pit without a vent

ANSWER **B**

WHY The UPC requires that indirect waste piping discharge through an air gap (or, where permitted, an air break) into a trapped and vented receptor, such as a floor sink, floor drain, or standpipe, to prevent contamination of fixtures and the potable system. Direct connections (A), termination inside vent stacks (C), unvented sump pits (E), and running-trap-only arrangements (D) do not meet this requirement.

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