

01	☐ A	☐ B	☐ C	☐ D	☐ E
02	☐ A	☐ B	☐ C	☐ D	☒ E
03	☐ A	☒ B	☐ C	☐ D	☐ E
04	☐ A	☐ B	☐ C	☐ D	☒ E
05	☐ A	☒ B	☐ C	☐ D	☐ E
06	☐ A	☐ B	☒ C	☐ D	☐ E
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31	☐ A	☒ B	☐ C	☐ D	☐ E
32	☐ A	☐ B	☒ C	☐ D	☐ E
33	☐ A	☐ B	☐ C	☒ D	☐ E
34	☐ A	☐ B	☐ C	☐ D	☒ E
35	☐ A	☒ B	☐ C	☐ D	☐ E
36	☐ A	☐ B	☒ C	☐ D	☐ E
37	☐ A	☐ B	☐ C	☒ D	☐ E
38	☒ A	☐ B	☐ C	☐ D	☐ E
39	☐ A	☒ B	☐ C	☐ D	☐ E

PRACTICE QUESTIONS

National Inspection Testing and Certification Corporation

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QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

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- the exam code, **SPLM**
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QUESTION 1

SINGLE CHOICE

A plumber is installing a new bathroom group in a residential occupancy. According to standard plumbing code principles used in licensing examinations, which of the following fixtures is typically required to be served by a separate (individual) trap?

- ☐ A A lavatory connected downstream of a kitchen sink trap arm
- ☐ B A bathtub with an integral overflow
- ☒ C A water closet (toilet)
- ☐ D A dishwasher air gap fitting

ANSWER C

WHY Plumbing codes universally require that fixtures such as water closets be served by an individual trap that is integral to the fixture. Lavatories, bathtubs, and air gaps are not on the short list of fixtures that must have their own dedicated, non-shared trap in the same way a water closet does. The other choices are distractor fixtures that either share a trap arm, use an integral trap design, or are not fixture-trap fixtures at all.

QUESTION 2

SINGLE CHOICE

For a drainage fixture unit (DFU) load calculation on a residential building drain, which value is the code-assigned DFU for a private-use bathtub (with or without shower)?

- ☐ A 1 DFU
- ☒ B 2 DFU
- ☐ C 3 DFU
- ☐ D 5 DFU

ANSWER B

WHY Standard plumbing code tables assign 2 drainage fixture units to a private-use bathtub, whether or not it includes a shower. 1 DFU is too low (typical of a lavatory or similar small fixture), while 3 DFU is associated with fixtures such as a private water closet and 5 DFU is more representative of a kitchen sink in private use.

QUESTION 3

SINGLE CHOICE

Which of the following materials is NOT approved by typical plumbing codes for use inside a building for potable water distribution?

- ☐ A Type L copper tubing with lead-free solder joints
- ☐ B Cross-linked polyethylene (PEX) tubing listed for potable use
- ☐ C Chlorinated polyvinyl chloride (CPVC) tubing listed for potable use
- ☒ D Lead pipe with wiped lead joints

ANSWER D

WHY Lead pipe with wiped lead joints is no longer permitted by modern plumbing codes for potable water distribution because of lead-leaching health hazards. Type L copper, PEX, and CPVC are all approved materials when properly listed and installed. The other options are legitimate, currently approved potable water distribution materials.

QUESTION 4

SINGLE CHOICE

A fixture trap arm that serves a kitchen sink is 4 feet long from the trap outlet to where it ties into the venting system. The trap arm has a diameter of 1-1/2 inches. According to standard code principles regarding maximum trap-arm length, this installation is:

- ☐ A Acceptable only if the slope is increased to 1/2 inch per foot
- ☒ B Acceptable as designed for a 1-1/2 inch trap arm
- ☐ C Unacceptable because any fixture trap arm over 3 feet requires a 2-inch diameter
- ☐ D Unacceptable because the trap arm must be at least 5 feet long

ANSWER B

WHY Standard plumbing code tables on maximum developed length of fixture trap arms allow a 1-1/2 inch trap arm to be up to 6 feet for many common fixtures (the exact maximum depends on the slope and the venting configuration, but 4 feet is well within the typical permitted length). Increasing slope is not the controlling factor, 2-inch diameter is not required at 4 feet, and there is no minimum trap-arm length of 5 feet.

QUESTION 5

SINGLE CHOICE

When sizing a water distribution system using the water supply fixture unit (WSFU) method, which fixture typically has the highest assigned WSFU value in a private-use residential installation?

- ☐ A Private water closet (tank type)
- ☐ B Private bathtub or shower
- ☒ C Private kitchen sink
- ☐ D Private lavatory

ANSWER C

WHY In residential (private) use, the kitchen sink typically carries the highest assigned water supply fixture unit value among common bathroom and kitchen fixtures (commonly 1.5 WSFU, versus 2.5–4 for the same fixtures in public use, but the kitchen sink still leads among the private fixtures listed). The water closet tank type, bathtub/shower, and lavatory each have lower private-use WSFU values than the kitchen sink.

QUESTION 6

SINGLE CHOICE

Regarding cleanouts in a building drainage system, which statement reflects standard code requirements?

- ☒ A Cleanouts are required at the base of every stack and at every change of direction greater than 45 degrees
- ☐ B Cleanouts are required only on exterior building drains and are not permitted inside the building
- ☐ C Cleanouts must be spaced at least every 100 feet regardless of pipe size
- ☐ D Cleanouts are required only at the property line

ANSWER A

WHY Plumbing codes require cleanouts at the base of stacks, at changes of direction above a certain angle (commonly at every change of direction greater than 45 degrees cumulative, or at certain total bends), and at prescribed maximum spacing intervals. The other statements are wrong: cleanouts are required both inside and outside the building, the maximum spacing depends on pipe size (and is much less than 100 feet for small building drains), and the property-line cleanout is just one of many required locations.

QUESTION 7 SINGLE CHOICE

Where a gas appliance connector is attached to rigid gas piping, the most commonly required device to protect the appliance from debris carried by the gas supply is:

- ☐ A A pressure-regulating valve
- ☒ B A sediment trap (drip leg)
- ☐ C A dielectric union
- ☐ D A thermal expansion tank

ANSWER B

WHY A sediment trap (often called a drip leg) is required at appliances to catch dirt, scale, and moisture before they reach the appliance gas valve or burner. Pressure-regulating valves control gas pressure, dielectric unions address dissimilar-metal corrosion, and thermal expansion tanks are used on domestic water systems — none of those are debris-catching devices for gas piping.

QUESTION 8 SINGLE CHOICE

Which of the following plumbing situations presents the highest hazard of backflow and typically requires an air gap or reduced-pressure principle backflow preventer (RPZ)?

- ☐ A A residential hose bibb used to water a flower garden
- ☒ B A potable water outlet terminating inside a boiler fill line with a closed system
- ☐ C A cold-water supply to a residential water closet tank
- ☐ D A shower mixing valve on a residential bathtub

ANSWER B

WHY A potable water connection to a boiler (or any closed heating system with chemical treatment) is considered a high-hazard cross-connection and typically requires an air gap or an RPZ backflow preventer. A hose bibb needs at most a hose-bibb vacuum breaker (not an RPZ in most residential settings), and the water closet tank and shower mixing valve are not high-hazard cross-connections under normal use.

QUESTION 9

MULTIPLE CHOICE

Which of the following statements about plumbing fixture installation are correct? (Choose two.)

- ☒ **A** Fixture traps must be self-scouring and must not depend on interior partitions for their seal
- ☐ **B** S-traps are the preferred configuration for fixture drainage under modern codes
- ☒ **C** Water closets must be set at a finished distance from the finished wall per the manufacturer and code (typically 12 inches from the centerline to a sidewall or partition)
- ☐ **D** Fixture outlets that depend on effective cross-section areas for their function are prohibited

ANSWER A • C

WHY Fixture traps must be self-scouring and must rely on a water seal rather than partitions or moving parts (statement A is correct). Water closet clearance from a sidewall is a standard code requirement (statement C is correct). S-traps are NOT preferred; they are generally prohibited in new construction because they can siphon, and 'fixture outlets that depend on effective cross-section areas' wording actually describes a permitted design principle, not a prohibition (D is incorrect).