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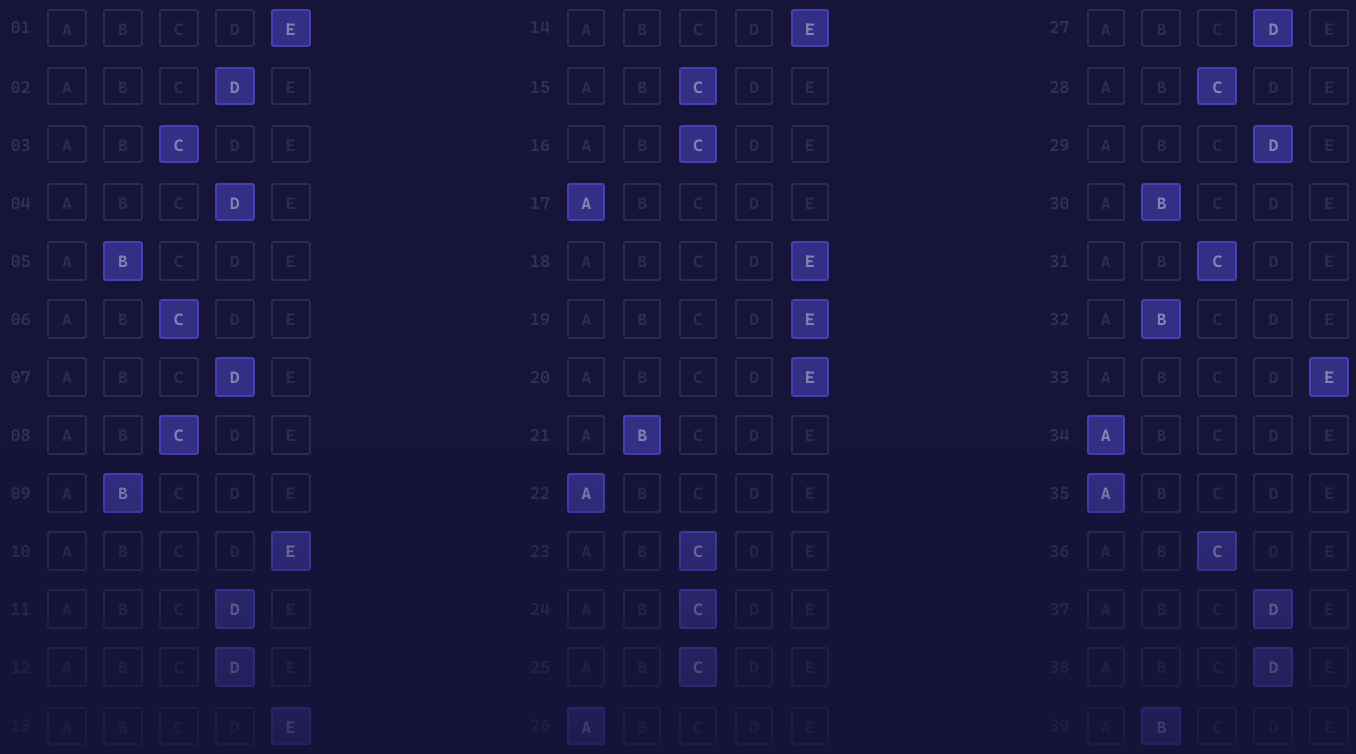

PRACTICE QUESTIONS

ABC-MO: Missouri Department of Natural Resources

YTLQVQXW

Drinking Water Distribution Level 1 (DS-1)

EDITION	QUESTIONS	FORMAT
Demo	9	Limited Edition PDF

Before you begin

What this is

9 practice questions for ABC-MO: Missouri Department of Natural Resources `YTLQVQXW`, 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, `YTLQVQXW`
- 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

What is the primary function of a check valve (or backflow preventer) in a water distribution system?

A To increase water pressure in the main

B To allow water to flow in only one direction and prevent reverse flow

C To reduce water hammer in the system

D To measure the volume of water flowing through a main

ANSWER B

WHY A check valve (backflow preventer) allows water to flow in only one direction, preventing contaminated water from flowing back into the potable water supply. This protects public health by preventing cross-connections and backflow events.

QUESTION 2 SINGLE CHOICE

When performing routine maintenance on a fire hydrant, what is the FIRST step a distribution operator should take?

A Open the hydrant fully to flush the main

B Lubricate the operating nut and caps

C Check for proper drainage after operation

D Notify the fire department and conduct a safety check

ANSWER D

WHY Before performing any maintenance on a fire hydrant, the operator must first notify the fire department and local authorities to ensure emergency services are aware the hydrant is out of service. This is a critical safety step to maintain fire protection coverage in the area.

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QUESTION 3 SINGLE CHOICE

What is the minimum residual chlorine concentration (in mg/L) that must be maintained throughout a public water distribution system according to Missouri Department of Natural Resources regulations?

A **0.2 mg/L**

B 0.5 mg/L

C 1.0 mg/L

D 2.0 mg/L

ANSWER **A**

WHY The Missouri Department of Natural Resources requires a minimum residual chlorine concentration of 0.2 mg/L to be maintained throughout the distribution system at all times. This ensures the water remains disinfected and safe from microbial contamination as it travels through the pipes to consumers.

QUESTION 4 MULTIPLE CHOICE

Which of the following are common causes of low water pressure in a distribution system? (Choose two.)

A **A water main break causing significant water loss**

B A pump operating at higher than design capacity

C Customers using water during peak demand hours

D **A closed isolation valve upstream of the affected area**

ANSWER **A · D**

WHY Low water pressure in a distribution system is commonly caused by water main breaks (where water escapes the system before reaching customers) and closed or partially closed isolation valves (which restrict flow). A pump operating above design capacity would increase pressure, and peak demand reduces pressure but is normal operational behavior rather than a 'cause' requiring correction.

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QUESTION 5 SINGLE CHOICE

When working in a trench that is 4 feet deep, what is the PRIMARY safety requirement according to OSHA standards?

A A safety harness must be worn by all workers

B An adequate protective system (such as sloping, shoring, or shielding) must be used

C At least one spotter must remain outside the trench at all times

D Workers must enter and exit using a ladder placed at the center

ANSWER B

WHY According to OSHA excavation standards (29 CFR 1926 Subpart P), trenches 5 feet deep or greater require a protective system such as sloping, shoring, or a trench box. However, many safety authorities require protective systems for trenches 4 feet deep or greater, especially in unstable soil. This is the primary safety requirement to prevent cave-ins, which are among the most deadly construction hazards.

QUESTION 6 SINGLE CHOICE

What type of valve is most commonly used to isolate sections of a water main for repair or maintenance?

A Pressure reducing valve

B Gate valve

C Air release valve

D Altitude valve

ANSWER B

WHY Gate valves are the most common type of valve used to isolate sections of water mains. They provide a tight seal when fully closed and allow full, unobstructed flow when fully open. Operators must fully open or fully close gate valves to prevent damage to the valve and ensure proper operation.

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QUESTION 7 SINGLE CHOICE

When flushing a dead-end water main, what is the PRIMARY purpose of the flushing operation?

A To increase water pressure in the area

B To remove sediment and biofilm from the pipe

C To test the flow rate of fire hydrants

D To reduce the chlorine residual in the system

ANSWER **B**

WHY The primary purpose of flushing a dead-end water main is to remove accumulated sediment, minerals, and biofilm that can collect in pipes with low flow. Regular flushing helps maintain water quality, prevents discoloration, removes potential microbial growth areas, and reduces customer complaints.

QUESTION 8 MULTIPLE CHOICE

Which of the following are required to be collected as part of routine distribution system water quality monitoring? (Choose two.)

A Bacteriological samples from representative locations

B Residual chlorine measurements at various points in the system

C Daily rainfall measurements in the service area

D Customer water usage patterns

ANSWER **A** · **B**

WHY Distribution system water quality monitoring requires bacteriological samples (typically coliform bacteria testing) collected from representative points throughout the system and residual chlorine measurements to ensure proper disinfection is maintained. Rainfall measurements and customer usage patterns are not required distribution water quality monitoring activities.

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QUESTION 9 SINGLE CHOICE

A customer reports rusty water from their tap. What is the MOST likely cause?

A A broken water main in the area

B Disturbance of sediment in the water main (often from a flow change or main break)

C Excessive chlorine in the system

D A cross-connection with a non-potable water source

ANSWER **B**

WHY Rusty or discolored water is most commonly caused by disturbance of naturally occurring sediment and iron deposits inside water mains. This often occurs after a flow change (such as a valve operation or main break) that stirs up these deposits. The recommended action is typically to flush the system from the nearest hydrant until water runs clear.

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