

01	☐ A	☐ B	☐ C	☐ D	☒ E
02	☐ A	☐ B	☒ C	☐ D	☐ E
03	☐ A	☐ B	☐ C	☒ D	☐ E
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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

Alberta Water and Wastewater Operator Certification Program

DLPT2VR3

Alberta Water Distribution Operator Level 1

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for Alberta Water and Wastewater Operator Certification Program **DLPT2VR3**, 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, **DLPT2VR3**
- the question number
- the email address on your order

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

QUESTION 1

SINGLE CHOICE

What is the primary purpose of a water distribution system?

- ☐ A To treat raw water to make it potable
- ☒ B To convey potable water from the treatment plant or storage facility to the consumer
- ☐ C To collect wastewater and deliver it to a treatment facility
- ☐ D To store untreated water for future use

ANSWER B

WHY The primary purpose of a water distribution system is to convey potable (treated, safe) water from the source (such as a treatment plant) through the network of pipes, pumps, and storage facilities to the consumer. Option A describes water treatment, option C describes wastewater collection (sanitary sewer), and option D relates to raw water storage, not distribution.

QUESTION 2

SINGLE CHOICE

Which type of pipe is most commonly used in modern municipal water distribution mains due to its strength, durability, and resistance to corrosion?

- ☐ A Lead pipe
- ☐ B Asbestos-cement pipe
- ☒ C Ductile iron pipe
- ☐ D Galvanized iron pipe

ANSWER C

WHY Ductile iron pipe (DIP) is widely used in modern municipal water distribution systems because of its high strength, durability, and corrosion resistance (especially when protected with linings and polyethylene encasement). Lead pipe is no longer installed due to health hazards; asbestos-cement pipe has been largely phased out; and galvanized iron pipe is typically used for small service lines rather than mains and is subject to corrosion over time.

QUESTION 3

SINGLE CHOICE

What is the function of a gate valve in a water distribution system?

- ☐ A To reduce water pressure in the main
- ☐ B To control the direction of flow in the main
- ☒ C To fully open or fully close the flow of water in a pipeline
- ☐ D To prevent backflow into the distribution system

ANSWER C

WHY Gate valves are designed to be operated either fully open or fully closed. They are not intended for throttling (partial flow) because partial opening causes vibration and wear on the gate and seat. Pressure-reducing valves (option A) control pressure, check valves (option D) prevent backflow, and direction is generally controlled by piping configuration rather than a single valve (option B).

QUESTION 4

SINGLE CHOICE

Why are fire hydrants typically flushed periodically as part of distribution system maintenance?

- ☐ A To increase water pressure in the main
- ☒ B To remove sediment and verify proper operation of the hydrant
- ☐ C To disinfect the distribution main
- ☐ D To test the backflow preventer

ANSWER B

WHY Periodic flushing of fire hydrants is performed to clear sediment and tuberculation from the water main and to verify that the hydrant is operational and accessible. Flushing does not increase system pressure (option A), does not provide disinfection — that requires chlorination (option C), and is not a test for a backflow preventer (option D).

QUESTION 5

SINGLE CHOICE

What is a cross-connection in a water distribution system?

- ☐ A A connection between two water mains of different diameters
- ☒ B A physical link between a potable water supply and a non-potable source where contaminants could enter the potable water
- ☐ C An intersection of two distribution pipes
- ☐ D A service connection from the main to the curb stop

ANSWER B

WHY A cross-connection is any actual or potential physical connection between the potable (safe) water supply and any non-potable source (such as an irrigation system, chemical tank, or auxiliary water supply) through which contaminants could flow back into the potable system. The other options describe normal piping configurations or components, not cross-connections.

QUESTION 6

SINGLE CHOICE

Which chemical is most commonly used for disinfecting new or repaired water mains before being placed into service?

- ☐ A Sodium hydroxide
- ☒ B Chlorine (sodium hypochlorite or liquid chlorine)
- ☐ C Hydrogen peroxide
- ☐ D Ozone

ANSWER B

WHY Chlorine, applied as sodium hypochlorite (liquid bleach) or liquid chlorine gas solution, is the most commonly used disinfectant for new or repaired water mains. The heavily chlorinated water is held in the main for a specified contact time, then flushed and tested for acceptable bacteriological results before the main is returned to service. While ozone (option D) is used in some advanced treatment plants, it is not the standard for distribution main disinfection due to its rapid dissipation.

QUESTION 7

SINGLE CHOICE

What is the primary purpose of an elevated water storage tank in a distribution system?

- ☐ A To treat the water before it enters the system
- ☒ B To provide storage and maintain system pressure through gravitational head
- ☐ C To remove hardness from the water
- ☐ D To chlorinate the water

ANSWER B

WHY Elevated storage tanks provide both treated water storage capacity and maintain distribution system pressure through gravity (the elevation of the water surface above the service area creates the hydraulic head). Treatment (option A), softening (option C), and disinfection (option D) are performed at the water treatment plant, not in the storage tank.

QUESTION 8

SINGLE CHOICE

Which component of a water distribution system is used to divide the system into isolated sections so that specific areas can be shut down for maintenance or repair without affecting the entire system?

- ☐ A Air relief valve
- ☐ B Blow-off valve
- ☒ C Isolation (sectional) valve
- ☐ D Pressure-reducing valve

ANSWER C

WHY Isolation valves (also called sectional valves or main valves) are placed throughout the distribution system to allow specific sections of main to be shut down and isolated for maintenance, repair, or new construction while minimizing service disruption to other customers. Air relief valves remove trapped air; blow-off valves are used to drain low points; and pressure-reducing valves reduce excessive pressure — none of these isolate sections of main.

QUESTION 9

MULTIPLE CHOICE

Which of the following situations create a potential cross-connection hazard in a water distribution system? (Choose two.)

- ☒ **A** A lawn irrigation system connected directly to the potable water service with no backflow preventer
- ☒ **B** A hose bibb with an attached hose whose end is submerged in a bucket of chemical solution
- ☐ **C** A properly installed and tested reduced pressure zone (RPZ) backflow preventer on a fire service line
- ☐ **D** A meter vault containing only the customer water meter with no other appurtenances

ANSWER A • B

WHY Both option A (an irrigation system without backflow prevention) and option B (a hose submerged in a chemical solution creating a potential siphon-back path) are classic cross-connection hazards. Option C is actually a cross-connection control device that mitigates the hazard rather than creating one, and option D describes a normal meter installation with no cross-connection present.