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37	A	B	C	D	E
38	A	B	C	D	E
39	A	B	C	D	E

PRACTICE QUESTIONS

Connecticut Department of Public Health, Drinking Water Section

UKNE2LN9

WPI Water Distribution Operator Class II Exam

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for Connecticut Department of Public Health, Drinking Water Section UKNE2LN9, 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, UKNE2LN9
- the question number
- the email address on your order

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

QUESTION 1 SINGLE CHOICE

Before a newly constructed water main is placed into service, it must be flushed and disinfected. What is the primary reason for the initial flushing step prior to disinfection?

- ☐ A To remove chlorine residual that may interfere with disinfection
- ☒ B To remove debris, dirt, and foreign material from the main
- ☐ C To test the working pressure of the new main
- ☐ D To sterilize the new main before the chlorine solution is added

ANSWER B

WHY The initial flushing of a new main is performed to remove debris, dirt, mud, and other foreign material that may have entered the pipe during installation. This step must be completed before disinfection so that the chlorine solution can contact clean pipe walls for effective disinfection.

QUESTION 2 SINGLE CHOICE

An irrigation system is connected to a potable water supply through a hose bib. When a sudden drop in system pressure occurs, non-potable water from a fertilizer sprayer attached to the hose can be drawn back into the drinking water main. This condition is known as:

- ☐ A Backpressure
- ☒ B Backflow by siphonage
- ☐ C Cross-connection
- ☐ D Thermal expansion

ANSWER B

WHY When a negative or reduced pressure in the supply main causes water to flow backward from a customer's plumbing into the distribution system, it is called backflow by siphonage (also called backflow by aspiration). This is the most common type of backflow and is caused by a drop in supply pressure below the downstream pressure. Backpressure occurs when downstream pressure exceeds supply pressure, and a cross-connection is the actual physical connection between potable and non-potable systems.

QUESTION 3

SINGLE CHOICE

During a routine inspection of a fire hydrant, the operator should check all of the listed items EXCEPT:

- ☐ A Operating nuts and caps for ease of operation and lubrication
- ☒ B The static water pressure in the connected main
- ☐ C Visibility and accessibility of the hydrant
- ☐ D Drainage of the hydrant barrel after operation

ANSWER B

WHY During a hydrant inspection, the operator checks accessibility and visibility, ensures operating nuts and caps are in good condition and lubricated, and verifies the hydrant drains properly after use. Routine inspections do not typically include reading the static pressure of the connected water main, which is a separate distribution system operation.

QUESTION 4

TRUE FALSE

Ductile iron pipe is generally more resistant to external loads and impact than cast iron pipe of the same size.

- ☒ A True
- ☐ B False

ANSWER A

WHY True. Ductile iron pipe has significantly greater tensile strength and impact resistance than gray cast iron pipe due to the magnesium treatment that gives ductile iron its spheroidal graphite structure. This makes it more resistant to external loads, bending stresses, and impact damage during handling and installation.

QUESTION 5 SINGLE CHOICE

What is the typical minimum free chlorine residual required at the point of application when disinfecting a new or repaired water main using the tablet or continuous feed method?

- ☐ A 5 mg/L
- ☐ B 10 mg/L
- ☐ C 25 mg/L
- ☒ D 50 mg/L

ANSWER D

WHY Standard disinfection practice for new or repaired water mains, following AWWA C651 and Connecticut DPH guidance, requires a minimum free chlorine residual of 50 mg/L (50 ppm) when using the continuous feed method, with a contact time of at least 24 hours. Lower residuals are used for other disinfection purposes but not for main disinfection.

QUESTION 6 SINGLE CHOICE

Lead service lines are a concern in older water distribution systems primarily because lead can:

- ☐ A Cause pipe walls to fail under pressure
- ☒ B Dissolve into the drinking water and cause health problems
- ☐ C React with chlorine and reduce disinfection effectiveness
- ☐ D Block flow and reduce pipe capacity

ANSWER B

WHY Lead is a toxic metal that can leach into drinking water from lead service lines, lead solder, and lead-containing brass components. Even at low concentrations, lead exposure causes serious health effects, particularly in children. Lead service lines do not typically fail structurally or block flow; their primary concern is public health through lead dissolution into the water.

QUESTION 7

SINGLE CHOICE

A water storage tank is being inspected. Which of the following conditions would indicate the tank needs immediate attention?

- ☐ A Exterior coating shows minor fading from sunlight exposure
- ☒ B Vent screen is partially missing or damaged
- ☐ C Overflow pipe discharges below the roofline
- ☐ D Access hatch is locked

ANSWER B

WHY A damaged or missing vent screen allows insects, birds, and small animals to enter the tank, which can contaminate the potable water supply and is a serious sanitary defect requiring immediate correction. Minor coating fading, properly designed overflows discharging below the roofline, and locked access hatches are all normal or required features.

QUESTION 8

SINGLE CHOICE

Which of the following best describes the primary purpose of a community water distribution system?

- ☐ A To treat raw water to drinking water standards
- ☒ B To deliver potable water to consumers at adequate quantity, pressure, and quality
- ☐ C To collect wastewater and route it to treatment facilities
- ☐ D To store stormwater for future use

ANSWER B

WHY The primary purpose of a water distribution system is to deliver safe (potable) drinking water to all customers in sufficient quantity, at adequate pressure, and with consistent quality throughout the service area. Treatment occurs at the source/treatment plant, wastewater collection is a separate system, and stormwater management is unrelated to potable water delivery.

QUESTION 9

MULTIPLE CHOICE

When disinfecting a new or repaired water main using the continuous-feed method, which of the following parameters must be monitored and recorded during the 24-hour disinfection contact period? (Choose two.)

- ☒ **A** Free chlorine residual at the injection point
- ☐ **B** Pipe diameter and wall thickness
- ☒ **C** pH of the water in the main
- ☐ **D** Color of the flushing discharge water
- ☐ **E** Turbidity of the water at the downstream end of the main

ANSWER A - C

WHY During the continuous-feed disinfection method, the operator must verify that an adequate free chlorine residual (typically not less than 25 mg/L) is being applied and that the pH of the water remains below 8.0 so that chlorine remains in its more effective form. Pipe dimensions, flushing color, and downstream turbidity are not part of the required 24-hour monitoring record for the contact period itself.