

01	☐ A	☐ B	☐ C	☐ D	☐ E
02	☐ A	☐ B	☐ C	☐ D	☒ E
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37	☐ A	☒ B	☐ C	☐ D	☐ E
38	☐ A	☐ B	☐ C	☐ D	☒ E
39	☒ A	☐ B	☐ C	☐ D	☐ E

PRACTICE QUESTIONS

Certification Commission for Environmental Professionals

M8ABXX9U

C2EP Wastewater Collection Operator Class 3

EDITION

Demo

QUESTIONS

9

FORMAT

Limited Edition PDF

Before you begin

What this is

9 practice questions for Certification Commission for Environmental Professionals M8ABXX9U, 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, M8ABXX9U
- the question number
- the email address on your order

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

QUESTION 1

SINGLE CHOICE

During routine inspection of a submersible lift station, the operator notes the wet well is sluggish in filling and the pumps are short-cycling. Which condition is the most likely cause?

- ☐ A A clogged or partially blocked pump intake screen
- ☐ B Excessive grease accumulation in the wet well
- ☒ C A leaking check valve on the discharge side
- ☐ D A failing seal in the pump volute allowing air ingress

ANSWER C

WHY A leaking check valve allows previously pumped sewage to flow back into the wet well, causing rapid re-filling and short cycling of the pumps. Grease accumulation, intake blockage, and seal failure are possible but typically produce different symptoms such as reduced pump discharge or overheating, not the rapid recycle pattern described.

QUESTION 2

SINGLE CHOICE

A collection system crew is preparing to enter a confined space to repair a manhole invert. Which action must be completed before any worker enters the space?

- ☒ A Conduct an atmospheric test for oxygen, flammable gases, and hydrogen sulfide
- ☐ B Notify the local fire department
- ☐ C Install a temporary bypass pump around the manhole
- ☐ D Lower a worker with a retrieval harness attached to a mechanical advantage device

ANSWER A

WHY Atmospheric testing for oxygen deficiency, flammability, and toxic gases such as hydrogen sulfide is the mandatory first step of any confined-space entry under OSHA 1910.146 and standard collection system safety practice. While retrieval equipment (D) is required, the atmosphere must be verified safe before entry, and bypass pumping (C) is a separate operational consideration.

QUESTION 3

SINGLE CHOICE

An operator reviews a daily flow report and notices that the average dry-weather diurnal flow pattern at a master meter shows much higher peaks than typical for the service area. Which factor is the most probable cause of the elevated peak?

- ☐ A Inflow and infiltration from a high groundwater table after recent rains
- ☒ B Unauthorized sump pump connections discharging into the sanitary sewer
- ☐ C A stuck-open air release valve on a force main
- ☐ D A partially closed isolation valve downstream of the meter

ANSWER B

WHY Sump pump connections discharge during dry weather when homeowners run sump pumps, producing sharp peaks in the diurnal pattern that exceed normal sanitary flow. Inflow/infiltration (A) is rainfall-driven and would not appear on a dry-weather report; a stuck air release valve (C) and a closed isolation valve (D) would reduce measured flow, not increase peaks.

QUESTION 4

SINGLE CHOICE

A new section of 12-inch PVC gravity sewer is installed at a slope of 0.40 percent. Using Manning's equation with $n = 0.013$, what is the most appropriate way for the operator to confirm the pipe will convey the design peak flow?

- ☒ A Compare the calculated full-flow capacity to the expected peak wet-weather flow
- ☐ B Verify the pipe is laid to grade using a laser or level during installation
- ☐ C Confirm the downstream manhole is at the correct invert elevation
- ☐ D Inspect the pipe interior for deflection with a mandrel after backfilling

ANSWER A

WHY Confirming capacity requires computing the Manning full-flow capacity of the pipe at the design slope and comparing it to the expected peak wet-weather flow. The other options (B, C, D) are valid construction or post-installation quality assurance activities, but they verify slope, elevation, or deflection rather than hydraulic capacity.

QUESTION 5

SINGLE CHOICE

Following a significant rain event, a collection system operator receives reports of a sanitary sewer overflow (SSO) at a manhole located in a low-lying easement. Which action should be taken first upon arrival?

- ☒ **A Identify the location of the overflow and the receiving water**
- ☐ B Begin containment using a vacuum truck or dam
- ☐ C Notify the regulatory authority of the SSO
- ☐ D Restore flow by clearing the blockage downstream

ANSWER A

WHY The first priority in SSO response is to characterize the event: identify the location, estimate the volume, and determine the receiving water. This information drives subsequent decisions about containment, notification, and corrective action. Containment and regulatory notification depend on accurate characterization of the overflow.

QUESTION 6

SINGLE CHOICE

An 8-inch gravity sewer is flowing at 60 percent of full depth. Compared to full-flow conditions at the same slope, how will the actual flow velocity most likely behave?

- ☐ A Lower than the full-flow velocity
- ☐ B Equal to the full-flow velocity
- ☒ **C Higher than the full-flow velocity**
- ☐ D Unrelated to depth and determined only by slope

ANSWER C

WHY For circular sewers, partial flow at about 60 percent of full depth typically produces a velocity greater than the full-flow velocity. This is why sewers are designed to flow at partial depth, providing both capacity reserve and self-cleaning velocity. Velocity does depend on depth, so D is incorrect.

QUESTION 7

SINGLE CHOICE

During routine maintenance, an operator discovers a force main air release valve is discharging sewage instead of air. Which condition is the most likely cause?

- ☐ A The force main is experiencing negative pressure (vacuum)
- ☒ B The air release valve float is stuck in the open position
- ☐ C The isolation valve below the air release valve is closed
- ☐ D The surge tank is undersized for the system

ANSWER B

WHY A stuck-open float on an air release valve allows sewage to escape through the valve outlet, producing visible discharge. A vacuum condition (A) would pull air in, not push sewage out; a closed isolation valve (C) would isolate the valve from the line; surge tank sizing (D) is unrelated to discharge from the valve.

QUESTION 8

MULTIPLE CHOICE

An operator is evaluating long-term strategies to reduce sanitary sewer overflows (SSOs) in a collection system. Which of the following are commonly recognized SSO prevention measures? (Choose three.)

- ☒ A Implementing a routine sewer cleaning and inspection program
- ☒ B Conducting flow monitoring to identify capacity-deficient areas
- ☐ C Reducing the frequency of lift station inspections to lower operating costs
- ☒ D Eliminating cross connections between storm drains and sanitary sewers

ANSWER A • B • D

WHY Routine cleaning and inspection (A) removes blockages before they cause SSOs. Flow monitoring (B) identifies hydraulic bottlenecks where capacity improvements are needed. Eliminating storm cross connections (D) removes rainfall-derived inflow that can overwhelm the system. Reducing lift station inspection frequency (C) is the opposite of sound SSO prevention practice and is incorrect.

QUESTION 9

MULTIPLE CHOICE

A Class 3 collection operator is reviewing items that should be checked during a routine lift station inspection. Which of the following are appropriate items to include on the inspection checklist? (Choose three.)

- ☒ **A** Wet well level and pump run hours
- ☒ **B** Condition of pump guide rails and chains
- ☒ **C** Proper function of the high-level alarm
- ☐ **D** Treatment plant effluent BOD concentration

ANSWER **A · B · C**

WHY Routine lift station inspection includes verifying wet well levels and pump run hours (A), checking mechanical components such as guide rails and chains (B), and testing the high-level alarm (C). Treatment plant effluent BOD (D) is a downstream treatment process parameter and is not part of lift station inspection.