Sewer Collection Systems Operator Practice Test (Sample)

Study Guide

Everything you need from our exam experts!

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- **Practice answering questions under realistic conditions,**
- **Improve accuracy and speed,**
- **Review explanations to strengthen weak areas, and**
- **Approach the exam with greater confidence.**

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here’s how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don’t just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There’s no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

1. What is a possible sign of a problem with the sewer line when inspecting a manhole?

A. Cracks in the cover

B. Manhole drops 1/2 inch

C. Deep scouring around base

D. Foul odor present

2. Rise Divided Run multiplied by 100 equals which term?

A. Slope

B. Gradient

C. Intercept

D. Elevation

3. As Total Dynamic Head (TDH) decreases, what happens to gallons per minute (GPM)?

A. Decreases

B. Stays the same

C. Always increases

D. Increases

4. Which collection system carries household waste?

A. Sanitary Sewer

B. Industrial

C. Storm

D. Combined

5. Which access device is essential for removing solids and clearing stoppages in a sewer line?

A. Junction Boxes

B. Catch Basin

C. Cleanouts

D. Backflow Preventers

6. If a lift station fails and causes sewage releases, what costs may be incurred for residents?

A. Only cleanup costs under $1000

B. No costs

C. Costs can run into thousands for damaged goods

D. Government fines only

7. How should valves be opened to prevent water hammer or water thrust conditions that can cause pipe damage?

A. Slowly

B. Quickly

C. Abruptly

D. Moderately

8. What is the minimum inside diameter of a manhole?

A. 24 inches

B. 42 inches

C. 36 inches

D. 48 inches

9. Which collection system is described as carrying strictly industrial wastewater to the wastewater treatment plant, with waste varying by industry and often the most difficult to treat?

A. Sanitary Sewer

B. Storm

C. Industrial

D. Combined

10. Which manhole should be used when a pipe enters at an elevation higher than the outgoing pipe?

A. Wet Well

B. Junction Manhole

C. Access Manhole

D. Drop Manhole

Answers

1. B
2. A
3. D
4. A
5. C
6. C
7. A
8. B
9. C
10. D

Explanations

1. What is a possible sign of a problem with the sewer line when inspecting a manhole?

A. Cracks in the cover

B. Manhole drops 1/2 inch

C. Deep scouring around base

D. Foul odor present

A key indicator of problems in the sewer line is movement or settlement of the system, which you can observe as a change in the vertical position of the manhole itself. If the manhole has dropped even a small amount, like half an inch, it signals that soil has shifted or the pipe has settled enough to pull the structure downward. This is a direct, measurable sign that the underground components aren't stable anymore, and it can lead to misalignment of joints, cracks, infiltrations, voids beneath the manhole, and future structural failure if not addressed. Other signs can appear for different reasons but aren't as direct a signal of the sewer line's condition. Cracks in the cover can result from aging or impact rather than active movement of the line. A foul odor might indicate gas presence or venting issues, which don't necessarily point to a movement problem. Deep scouring around the base shows erosion or active water flow at the base, which is serious but is a more specific condition and not as general a sign of overall line movement as a measurable drop in the manhole.

2. Rise Divided Run multiplied by 100 equals which term?

A. Slope

B. Gradient

C. Intercept

D. Elevation

Rise over run is the rate of change in height per horizontal distance. When you multiply that ratio by 100, you express it as a percentage, which is the slope expressed as a percent. This is the common way to describe how steep a line or grade is, so the result is called the slope (often written as slope percent or grade). Intercept and elevation refer to different ideas—where a line crosses an axis and a height above a reference, respectively—so they aren't the outcome of this calculation.

3. As Total Dynamic Head (TDH) decreases, what happens to gallons per minute (GPM)?

A. Decreases

B. Stays the same

C. Always increases

D. Increases

Lower system dynamic head means less pressure and friction the pump has to overcome. A pump delivers more water when the head it must overcome is smaller, so the operating point on the pump's curve shifts to a higher flow. In practical terms, as TDH decreases, GPM increases, approaching the pump's maximum capacity as head gets very small.

4. Which collection system carries household waste?

A. Sanitary Sewer

B. Industrial

C. Storm

D. Combined

Household wastewater is carried by the sanitary sewer. This system collects the used water from toilets, sinks, showers, and laundry from homes and transports it to a wastewater treatment plant. It is separate from stormwater systems, which only carry rain and runoff, and from industrial sewer networks that handle manufacturing waste. Some places historically used a combined system that carries both sanitary waste and stormwater in the same pipes, but that is not the dedicated path for typical household waste. So the option that describes carrying household waste is the sanitary sewer.

5. Which access device is essential for removing solids and clearing stoppages in a sewer line?

A. Junction Boxes

B. Catch Basin

C. Cleanouts

D. Backflow Preventers

Access to the sewer line for maintenance is what this item provides. A cleanout is a dedicated access point—a capped fitting that opens the interior of the pipe—so you can insert a sewer rod or hose, push or pull out solids, and break up or remove blockages. Cleanouts are placed where stoppages commonly occur or where the line changes direction, making it practical to reach the flow path without digging up large sections of pipe. The other devices aren't used for clearing blockages: junction boxes are for electrical or control connections, catch basins collect surface water and debris but aren't entry points for clearing the sewer line, and backflow preventers stop sewage from backing up but don't provide access for cleaning.

6. If a lift station fails and causes sewage releases, what costs may be incurred for residents?

A. Only cleanup costs under $1000

B. No costs

C. Costs can run into thousands for damaged goods

D. Government fines only

When a lift station fails and sewage is released, residents can face significant financial losses from damaged personal property and the necessary cleanup. Sewage can ruin carpeting, furniture, electronics, clothing, and other items, and many of these losses require professional cleaning, disposal of contaminated materials, odor control, and possibly mold remediation. Even if some items can be cleaned, the costs add up quickly, and replacement is often necessary for items that cannot be salvaged. Add in potential temporary relocation or loss of use of the home and the expenses for items that can't be salvaged, and it's common for costs to reach thousands of dollars. This is why costs can run into thousands for damaged goods is the best fit. The other options underestimate the typical financial impact residents experience, and government fines target the utility, not the resident's direct costs.

7. How should valves be opened to prevent water hammer or water thrust conditions that can cause pipe damage?

A. Slowly

B. Quickly

C. Abruptly

D. Moderately

Opening valves slowly keeps the flow change gradual, reducing the chance of a sudden pressure surge known as water hammer. Water hammer happens when the moving water suddenly meets a change in obstruction or velocity, creating a pressure wave that travels through the pipes. This temporary spike can exceed design pressures and damage pipes, joints, valves, and supports, plus cause loud banging and vibration. By opening the valve slowly, the water's momentum is accommodated gradually, giving the system time to adjust so the pressure rise stays within safe limits. Opening quickly or abruptly creates a large, rapid velocity change and produces stronger pressure spikes, which increases the risk of damage. Opening at a moderate pace is better than abrupt, but the safest practice is to do it slowly to protect the piping system.

8. What is the minimum inside diameter of a manhole?

A. 24 inches

B. 42 inches

C. 36 inches

D. 48 inches

Access space inside a manhole has to be enough for a person to enter, work, and maneuver tools and equipment safely. A 42-inch inside diameter provides roughly 9.6 square feet of usable floor area, which lets a worker stand or crouch and still have room to move around the sewer invert, use a ladder or access tools, and carry lighting or small devices. If the opening were much smaller, moves would be cramped, increasing the risk of injury and making cleaning, inspection, and maintenance much harder. On the other hand, making manholes larger than necessary adds cost and structural footprint without providing proportional benefits. So, 42 inches strikes a practical balance, giving sufficient working space while keeping construction and maintenance reasonable. Smaller options like 24 or 36 inches would be impractical for typical maintenance tasks, and larger ones like 48 inches are common but not required by the minimum standard.

9. Which collection system is described as carrying strictly industrial wastewater to the wastewater treatment plant, with waste varying by industry and often the most difficult to treat?

A. Sanitary Sewer

B. Storm

C. Industrial

D. Combined

The main idea is recognizing that sewer systems are categorized by what they carry. An industrial collection system is built to carry wastewater from industrial facilities. The waste from different industries can vary a lot in strength and composition, bringing in a range of contaminants that make treatment more complex. Because of this variability and potential presence of hazardous or nonbiodegradable substances, industrial wastewater is often the most difficult to treat, requiring pretreatment at the source and specialized treatment steps before reaching the wastewater treatment plant. In contrast, sanitary sewers carry domestic and some commercial wastewater, storm sewers carry rainwater and surface runoff, and combined sewers carry both wastewater and stormwater in one line.

10. Which manhole should be used when a pipe enters at an elevation higher than the outgoing pipe?

A. Wet Well

B. Junction Manhole

C. Access Manhole

D. Drop Manhole

When a sewer line comes in at a higher elevation than the line it feeds into, you need a way to connect them that preserves gravity flow and avoids pumping or air problems. A drop manhole does exactly that by providing a vertical drop inside the manhole. The incoming flow from the higher pipe enters the drop shaft and falls down to the level of the downstream pipe, then proceeds through the outlet. This setup controls the velocity and keeps the flow in gravity, preventing air traps and surcharges that can happen if you tried to connect differing elevations in a standard chamber. Other types aren't suited for this transfer: a wet well is for pumping stations, not gravity transitions; a junction manhole is used where multiple lines join at similar elevations; an access manhole is a basic inspection point without a designed vertical drop between different invert levels.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

https://sewercollectionsysop.examzify.com

We wish you the very best on your exam journey. You've got this!