

NICET LEVEL 3 INSPECTION, TESTING, AND MAINTENANCE (ITM) OF WATER-BASED SYSTEMS PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE**

<https://nicetlevel3itmofwaterbasedsys.examzify.com>



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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

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- 1. The standpipe flow test is performed to ensure which of the following about the water supply?**
 - A. The adequacy of the water supply
 - B. The check the capability of the system to meet the original design flow and pressure criteria for the performance of the system
 - C. The requirements of the local AHJ
 - D. To pass install requirements
- 2. Which water supply control valve is intended to be operated by actuation of an automatic detection system installed in the same area as the discharge device?**
 - A. Alarm device
 - B. Deluge valve
 - C. Dry pipe valve
 - D. Pressure reducing valve
- 3. How frequently should the mercury level gauge on a tank be tested to determine if the gauge is accurate?**
 - A. Annually
 - B. Every 3 years
 - C. Every 5 years
 - D. Every 10 years
- 4. What is the purpose of a flow test on fire mains?**
 - A. To determine available water.
 - B. To check hydrant operation.
 - C. To determine the internal condition of the pipe.
 - D. To check for closed system valves.
- 5. What is the minimum diameter of the removable airline for a system protecting a freezer?**
 - A. 1/4
 - B. 1/2
 - C. 1"
 - D. 1-1/4"

- 6. During hydrant nozzle testing, what is the minimum duration for which the flow nozzle should run?**
- A. 30 seconds
 - B. 1 minute
 - C. 2 minutes
 - D. 5 minutes
- 7. During pump testing, if flow is degraded by 5% or more, what action is indicated?**
- A. No action
 - B. The report should indicate an investigation
 - C. Immediate replacement of the pump
 - D. Electrical inspection only
- 8. When pressure readings indicate deterioration, which action should be taken to verify the adequacy of the pressure?**
- A. Compare results with the required design pressure.
 - B. Notify the Authority Having Jurisdiction.
 - C. Take pressure readings from a gauge placed at the hydraulically most remote valve.
 - D. Look for closed control valves.
- 9. How often are flow tests on underground mains required?**
- A. Annually
 - B. Every three years
 - C. Every 5 years
 - D. When underground piping is repaired
- 10. The final inspection report should be delivered to which party?**
- A. Authority Having Jurisdiction
 - B. Inspector
 - C. Property owner
 - D. Insurance company

Answers

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

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Explanations

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1. The standpipe flow test is performed to ensure which of the following about the water supply?

- A. The adequacy of the water supply**
- B. The check the capability of the system to meet the original design flow and pressure criteria for the performance of the system
- C. The requirements of the local AHJ
- D. To pass install requirements

Standpipe flow testing focuses on whether the water supply can deliver the amount of water and the pressure that the system was designed to require in operation. It's not just about having water available, but about meeting the original design flow and pressure criteria so the standpipe can perform as intended during a fire event. If the test shows the supply cannot sustain that design demand, adjustments to the supply or system layout are needed. That's why the best way to phrase the purpose is to verify the capability of the water supply to meet the original design flow and pressure criteria for the system's performance.

2. Which water supply control valve is intended to be operated by actuation of an automatic detection system installed in the same area as the discharge device?

- A. Alarm device
- B. Deluge valve**
- C. Dry pipe valve
- D. Pressure reducing valve

When water must flood every sprinkler head in a protected area as soon as a detector is triggered, the valve chosen is a deluge valve. In a deluge system, all sprinklers are open, and water is held back by a deluge valve until an automatic detection device in the same area as the discharge piping signals it to open. Once actuation occurs, water flows through the entire network of heads immediately, providing rapid, full-area protection. The alarm device itself is not a water-control valve, so it doesn't fit as the valve being operated. A dry pipe valve is used in dry-pipe systems where piping is filled with pressurized air and water is admitted into the lines when the valve releases, but the question emphasizes a valve intended to be opened by a local detection signal in the discharge area to flood all heads, which is the hallmark of the deluge valve. A pressure reducing valve changes pressure in the system and is not actuated by a detection signal.

3. How frequently should the mercury level gauge on a tank be tested to determine if the gauge is accurate?

- A. Annually
- B. Every 3 years
- C. Every 5 years**
- D. Every 10 years

Gauges that indicate tank levels can drift over time due to wear, seal leakage, temperature effects, and mechanical wear. To ensure readings remain trustworthy, they're checked periodically against a known reference and recalibrated if needed. A five-year interval for a mercury level gauge is a common maintenance practice because it balances the likelihood of drift with the effort and cost of testing. Testing more frequently, such as annually or every few years, adds workload without significantly increasing reliability for this type of indicator. Waiting much longer, like ten years, risks the gauge readings becoming inaccurate without notice, which could lead to improper system responses. So, testing every five years best fits the goal of detecting drift while keeping maintenance practical.

4. What is the purpose of a flow test on fire mains?

- A. To determine available water.
- B. To check hydrant operation.
- C. To determine the internal condition of the pipe.**
- D. To check for closed system valves.

Flow testing a fire main focuses on how water moves inside the piping and what that says about the pipe's interior. By forcing a known flow through the mains and measuring the resulting pressures, you reveal how much resistance the water encounters inside the pipes. This resistance comes from the condition of the interior surfaces and joints—scaling, corrosion, tuberculation, debris, or blockages—all of which increase friction losses and reduce actual flow. Seeing higher-than-expected losses or lower flows indicates the internal condition is compromised and may need cleaning, repair, or rehabilitation to ensure the system can deliver the required water during a fire. While you can learn something about available water from flow readings, the test's primary purpose in this context is to assess the pipe's interior condition, rather than specifically verifying hydrant operation or valve positions, which are addressed by other checks and tests.

5. What is the minimum diameter of the removable airline for a system protecting a freezer?

- A. 1/4
- B. 1/2
- C. 1"**
- D. 1-1/4"

The key idea is that the removable airline must provide enough air flow for charging and venting the system reliably, especially in a freezer protection setup where temperatures can promote ice formation and air trapping. If the line is too small, air cannot purge quickly or fill the system promptly, increasing the risk of air pockets, delays in activation, and potential freezing blocks. A 1-inch diameter offers a sufficient cross-section to move air with little resistance, ensuring quick, reliable charging and venting. Larger sizes are acceptable but not necessary for meeting the minimum requirement.

6. During hydrant nozzle testing, what is the minimum duration for which the flow nozzle should run?

- A. 30 seconds
- B. 1 minute**
- C. 2 minutes
- D. 5 minutes

You need a steady, representative discharge to calculate the flow rate accurately. When the hydrant nozzle is opened, air must be purged, the water column stabilizes, and system pressures settle. If the flow is measured too soon, you capture a transient surge or fluctuating readings rather than a true, steady flow, which can skew the discharge calculation. Allowing the flow nozzle to run for about a minute gives enough time for the flow and pressures to stabilize, producing a reliable, repeatable reading. Longer runtimes don't significantly improve accuracy and simply slow the test.

7. During pump testing, if flow is degraded by 5% or more, what action is indicated?

- A. No action
- B. The report should indicate an investigation**
- C. Immediate replacement of the pump
- D. Electrical inspection only

A noticeable drop in pump performance during testing signals a deviation that must be evaluated. If flow is 5% or more below the expected value, it indicates potential issues in the pump, piping, or instrumentation that should be investigated and documented. The correct action is to flag this condition in the report and initiate a formal investigation to identify root causes—such as impeller wear, suction line restrictions, valve misadjustments, air entrainment, or gauge calibration problems—and determine the appropriate corrective steps. Choosing no action would ignore a measurable performance change, which isn't appropriate. Replacing the pump immediately is premature based solely on a 5% drop unless other critical symptoms are present. Restricting the response to an electrical inspection only doesn't address the hydraulic or mechanical factors that affect flow.

8. When pressure readings indicate deterioration, which action should be taken to verify the adequacy of the pressure?

- A. Compare results with the required design pressure.**
- B. Notify the Authority Having Jurisdiction.
- C. Take pressure readings from a gauge placed at the hydraulically most remote valve.
- D. Look for closed control valves.

When pressure readings begin to deteriorate, the first thing to do is check against the system's design requirements. Compare the measured pressure to the required design pressure to see if the current values still meet what the system was designed to deliver. If the readings are at or above the design pressure within tolerance, the system is still adequately pressurized despite the deterioration in readings elsewhere. If the measurements fall short of the design pressure, it indicates under-pressurization and warrants investigation into causes such as pump performance, leaks, valve positions, or line restrictions. Comparing to design pressure provides the definitive baseline for adequacy; other steps may help diagnose causes, but this comparison confirms whether the pressure is sufficient for proper operation.

9. How often are flow tests on underground mains required?

- A. Annually
- B. Every three years
- C. Every 5 years**
- D. When underground piping is repaired

Flow tests on underground mains are used to verify that the water supply can deliver the required flow and maintain pressure for the system, even as the piping ages or some capacity is lost to sediment, valve leakage, or minor damage. Because underground mains are buried and changes in their capacity occur gradually, testing is scheduled on a five-year cycle rather than annually or every few years. This interval balances the need to confirm adequate supply with the practicality and cost of testing. After major repairs to underground piping, a test is performed to confirm the repair, but the routine interval for testing remains five years.

10. The final inspection report should be delivered to which party?

- A. Authority Having Jurisdiction
- B. Inspector
- C. Property owner
- D. Insurance company

The final inspection report serves as official documentation that the water-based system was installed and tested in accordance with the applicable codes and standards, and it confirms readiness for use. The property owner is the primary recipient because they will own, operate, and maintain the system, so they need the official record for their own operating procedures, maintenance planning, future inspections, and any potential value considerations. While the Authority Having Jurisdiction may require a copy or review for compliance and the inspector may keep records, the report is issued for the owner to hold as proof of completion and compliance. The insurance company may request information, but they are not the primary recipient of the final report.

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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://nicetlevel3itmofwaterbasedsys.examzify.com>

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

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