FDNY COF for Fire Alarm Systems Inspection, Testing and Service Technician (S-98) Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

Table of Contents

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. **A signaling line circuit is a circuit to which automatic or manual initiating devices are connected where the signal received does what?**

   A. Identifies the device operated

   B. Does not identify the device operated

   C. Identifies the location only

   D. Sends an audible alarm alone

2. **What is the smallest conductor size allowed for shunt type circuits?**

   A. 12 AWG

   B. 14 AWG

   C. 16 AWG

   D. 18 AWG

3. **Pre-signal system installations require approval from which official?**

   A. The fire commissioner

   B. The building owner

   C. The city planning director

   D. The fire marshal

4. **Who is responsible for ensuring fire and life safety systems are maintained in good working order at all times?**

   A. The owner

   B. The tenant

   C. The city fire department

   D. The system contractor

5. **Secondary power supplies for emergency voice evacuation systems must operate in a non-alarm condition for how many hours and, under maximum load, for a minimum of how many minutes?**

   A. 12 hours and 10 minutes

   B. 24 hours and 15 minutes

   C. 30 hours and 20 minutes

   D. 18 hours and 5 minutes

6. NFPA 72 requires manual fire alarm boxes to be conspicuous, unobstructed, and _____.

A. Accessible

B. Visible

C. Portable

D. Hidden

7. What is the primary purpose of the smoke detector maintenance log?

A. To document testing, maintenance actions, and replacements

B. To track tenant move-ins

C. To log energy consumption

D. To record purchase orders

8. An impairment coordinator is:

A. The person responsible for ensuring that proper safety precautions are taken when a fire protection system is out of service

B. The person who schedules routine maintenance

C. The person who installs new systems

D. The person who tests alarms only

9. Which type of document is included among the required information to be provided on site?

A. As built design and installation documents and equipment specifications

B. Annual budget reports

C. Employee payroll records

D. Marketing materials

10. Upon receipt of a trouble signal, within how many hours must maintenance personnel arrive to initiate service?

A. 2 hours

B. 4 hours

C. 6 hours

D. 8 hours

Answers

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

Explanations

1. A signaling line circuit is a circuit to which automatic or manual initiating devices are connected where the signal received does what?

A. Identifies the device operated

B. Does not identify the device operated

C. Identifies the location only

D. Sends an audible alarm alone

A signaling line circuit carries the initiating device signal to the fire alarm control panel without tagging which specific device caused it. On conventional systems, the panel only knows that something on that circuit activated, not the exact device. That's why the signal received does not identify the device operated. If you're working with addressable systems, the circuit can carry data that identifies the device, but in a standard signaling line circuit it does not. In practice, the panel will show that a particular circuit or zone has an alarm, and locating the exact device on that circuit requires checking the devices on that circuit or using testing procedures.

2. What is the smallest conductor size allowed for shunt type circuits?

A. 12 AWG

B. 14 AWG

C. 16 AWG

D. 18 AWG

Shunt-type circuits are used to directly energize devices (like relays or hold-open releases) when the alarm is active, so they carry more current than a normal signaling loop. Because of that higher current and the need to limit voltage drop over the run, a minimum conductor size is specified. The smallest copper conductor allowed for these circuits is 14 AWG, which provides adequate ampacity and voltage drop protection for typical shunt loads. Conductors smaller than that (16 or 18 AWG) wouldn't reliably carry the current, and while larger sizes like 12 AWG are also permitted, they're not the minimum.

3. Pre-signal system installations require approval from which official?

A. The fire commissioner

B. The building owner

C. The city planning director

D. The fire marshal

The key idea is that pre-signal fire alarm work falls under the authority of the fire department, so the final approval comes from the Fire Commissioner. Pre-signal systems are closely tied to how the FDNY is alerted and how emergency response is coordinated, so plan reviews and approvals for these installations are handled by the fire department to ensure proper integration, signaling, and safety. The building owner doesn't grant official approval, the city planning director isn't the approving authority for fire alarm equipment, and while a Fire Marshal can review and enforce codes, the formal approval authority on this type of installation rests with the Fire Commissioner.

4. Who is responsible for ensuring fire and life safety systems are maintained in good working order at all times?

A. The owner

B. The tenant

C. The city fire department

D. The system contractor

The owner is ultimately responsible for keeping fire and life safety systems in good working order. They control the building, fund and authorize maintenance, and must ensure that qualified professionals perform regular testing, repairs, and inspections and maintain proper documentation to prove compliance with codes and the authority having jurisdiction. The system contractor carries out the actual maintenance and testing under contract, but the ownership bears the responsibility to make sure those activities happen and that systems remain ready at all times. The city fire department enforces compliance and conducts inspections, but does not perform ongoing maintenance. In short, ownership ensures the systems are properly maintained, with contractors carrying out the work under that responsibility.

5. Secondary power supplies for emergency voice evacuation systems must operate in a non-alarm condition for how many hours and, under maximum load, for a minimum of how many minutes?

A. 12 hours and 10 minutes

B. 24 hours and 15 minutes

C. 30 hours and 20 minutes

D. 18 hours and 5 minutes

Secondary power supplies for emergency voice evacuation systems are designed to keep critical life-safety communications running during power outages. In non-alarm conditions, the system should be able to operate for 24 hours on standby power, ensuring readiness for extended outages. When the system is under maximum load—such as when it is actively transmitting evacuation messages—the power supply must sustain operation for at least 15 minutes. This combination ensures the system remains available both through prolonged outages and through brief periods of peak demand during an alarm. That's why the required durations are 24 hours in non-alarm condition and 15 minutes at maximum load.

6. NFPA 72 requires manual fire alarm boxes to be conspicuous, unobstructed, and _____.

A. Accessible

B. Visible

C. Portable

D. Hidden

The key idea is ensuring quick, unhindered access to manual fire alarm boxes during an emergency. NFPA 72 requires these boxes to be conspicuous, unobstructed, and accessible. Being accessible means you can reach and operate the box quickly from the normal travel path without having to move barriers, unlock doors, or move other objects. It should be placed so occupants can get to it readily along the exit routes, without obstruction, and without needing special tools or permissions. This guarantees that a fire can be alerted promptly, which is critical for safety. Visibility alone isn't enough if the box is behind a door or blocked; being unobstructed ensures there's a clear path, and being accessible ensures you can actually reach and activate it. Hidden or portable do not meet the requirement.

7. What is the primary purpose of the smoke detector maintenance log?

A. To document testing, maintenance actions, and replacements

B. To track tenant move-ins

C. To log energy consumption

D. To record purchase orders

The purpose of a smoke detector maintenance log is to document testing, maintenance actions, and replacements. Keeping a detailed, up-to-date record ensures there is a traceable history showing that detectors are regularly tested, any issues or faults are addressed, and components replaced as needed. This supports compliance with codes and standards, helps technicians know what was done previously, and provides evidence during inspections or audits that the system remains capable of functioning properly. It also aids in planning future maintenance by capturing next due dates and follow-up actions. Other activities like tracking tenant move-ins, logging energy usage, or recording purchase orders aren't the focus of the maintenance log for smoke detectors; those tasks fall outside the operational safety records of the fire alarm system itself.

8. An impairment coordinator is:

A. The person responsible for ensuring that proper safety precautions are taken when a fire protection system is out of service

B. The person who schedules routine maintenance

C. The person who installs new systems

D. The person who tests alarms only

When a fire protection system is out of service, the person in charge of coordinating that impairment is responsible for ensuring proper safety precautions are in place. This role oversees everything needed to protect life and property during the outage: implementing a fire watch if required, posting impairment notices, notifying building occupants and the fire department as needed, and documenting the outage and steps taken. The goal is to manage temporary loss of protection so work can proceed safely and the system is restored promptly and correctly, with all records updated. The other tasks described don't cover this safety coordination element. Scheduling routine maintenance is about planning regular service, installing new systems is the installation role, and testing alarms alone doesn't address the full safety and communication measures required when a system is impaired.

9. Which type of document is included among the required information to be provided on site?

A. As built design and installation documents and equipment specifications

B. Annual budget reports

C. Employee payroll records

D. Marketing materials

The key idea here is what documentation must be available on-site to verify and service a fire alarm system. The correct type of document is the as-built design and installation documents along with equipment specifications. These papers show the exact configuration that was actually installed—how devices are wired, what model numbers and ratings are used, and how the system was laid out. Having them on-site lets the inspector confirm that the installed work matches the approved design, understand the precise components in the system, and perform accurate testing and maintenance. The other options don't relate to the on-site fire alarm system information needed for inspection or service. Budget records, payroll files, and marketing materials are business documents and aren't used to verify or support the installation and operation of the fire alarm system on site.

10. Upon receipt of a trouble signal, within how many hours must maintenance personnel arrive to initiate service?

A. 2 hours

B. 4 hours

C. 6 hours

D. 8 hours

The key idea is that trouble signals call for a prompt but practical response to restore the fire alarm system's reliability. A trouble signal indicates a fault or condition that could degrade the system's ability to communicate or function properly, such as a faulty device, wiring issue, or power problem. Getting maintenance personnel on site and initiating service within four hours helps ensure the fault is diagnosed and corrected quickly, reducing the risk of undetected failures and maintaining overall system integrity. Four hours strikes a balance between urgency and feasibility for field crews. It's faster than a typical eight-hour window and more realistic than a two-hour deadline, which can be impractical for scheduling, on-site diagnosis, and parts replacement. This timeframe emphasizes timely attention to faults without treating them as an immediate life-safety alarm condition, which would demand even quicker action. So, the four-hour window is the standard approach: it minimizes downtime, supports reliability, and aligns with the expected maintenance response for trouble signals.

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://fdnycofs98.examzify.com

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