

RECONNAISSANCE AIT PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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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. Who plans/implements crew rotation(work/rest cycles)?**
 - A. Operations Officer
 - B. Site Lead
 - C. Logistics Officer
 - D. Command Post (CP)
- 2. What is the purpose of the First Defender RMX?**
 - A. Identify unknown solid & liquid chemicals in the field
 - B. Measure ambient temperature
 - C. Detect heavy metals
 - D. Map terrain
- 3. What report is used to send the areas of actual contamination?**
 - A. Site Survey
 - B. Initial Assessment
 - C. CBRN 5
 - D. After Action Report
- 4. Which of the following is a common glassware item found in chemical and biological production laboratories?**
 - A. Beaker
 - B. Ring Stand
 - C. Thermometer
 - D. Pipette
- 5. A combination of commercially available ingredients combined to create an explosive substance**
 - A. Improvised Explosive Device
 - B. Homemade Explosives (HME)
 - C. Black Powder
 - D. Triacetone Triperoxide

6. The near side, far side, box, star, bounce and bypass, course leg, or preselected dose rate techniques can be used when conducting a CBRN Survey.
- A. During a CBRN Survey
 - B. During a monitoring session
 - C. During an Observational watch
 - D. During a Quantification task
7. Who exercises overall control of sample collection?
- A. Operations Manager
 - B. Safety Officer
 - C. R&S element team leader
 - D. Field Technician
8. Which condenser is the simplest, having only one tube and typically used for fractional distillation and high-temperature condensation?
- A. Water cooled condenser
 - B. Liebig condenser
 - C. Allihn condenser
 - D. Air Cooled condenser
9. What is the initial step when installing the memory card in the First Defender RMX?
- A. Shut down detector and open access door on the bottom side of the detector
 - B. Power on the detector and open the front panel
 - C. Remove the memory card and reinsert while powered
 - D. Connect USB cable to memory card
10. What materials can absorb laser energy and heat up, making them a possible source of ignition?
- A. Lighter colored solids
 - B. Darker Colored Solids are most suitable
 - C. Clear liquids
 - D. Gases

Answers

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

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Explanations

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1. Who plans/implements crew rotation(work/rest cycles)?

- A. Operations Officer
- B. Site Lead
- C. Logistics Officer
- D. Command Post (CP)**

The main concept is fatigue management and continuity of operations in field missions. Planning and implementing crew rotation and work/rest cycles is a function of the Command Post because it serves as the central command and control hub for the operation. From this position, planners coordinate mission timelines, personnel assignments, safety requirements, and handoffs across all teams. The Command Post gathers input from sites, medical and safety teams, and logistics to adjust rotations as needed, ensuring crews remain rested and alert while maintaining mission momentum. The Operations Officer tends to focus on mission planning and tasking for operations, but the explicit scheduling of crew shifts and rest periods spans across the broader command and control perspective that the Command Post uniquely provides. The Site Lead handles day-to-day activities at a specific location and may implement local rotations, but not the overarching, synchronized work/rest cycles for the entire operation. The Logistics Officer handles supplies, equipment, and transport, not the scheduling of personnel rest periods. So, the Command Post is best suited to plan and implement crew rotation and work/rest cycles.

2. What is the purpose of the First Defender RMX?

- A. Identify unknown solid & liquid chemicals in the field**
- B. Measure ambient temperature
- C. Detect heavy metals
- D. Map terrain

The First Defender RMX is designed to identify unknown solid and liquid chemicals right in the field. It's a handheld Raman spectroscopy tool that shines a laser on a sample and analyzes the light scattered back. By comparing the resulting spectrum to a built-in library, it provides candidate identifications with confidence levels and hazard information. This capability lets responders quickly determine what a substance is and decide on appropriate PPE and response actions, which is exactly what the device is built to do. This isn't a temperature meter, a device for detecting heavy metals, or a tool for mapping terrain. Those functions belong to other instruments or methods, whereas the RMX's purpose centers on rapid chemical identification at the scene.

3. What report is used to send the areas of actual contamination?

- A. Site Survey
- B. Initial Assessment
- C. CBRN 5**
- D. After Action Report

In this scenario the main idea is how contaminated-area information gets communicated to the response team. The CBRN 5 form is the standardized report used to relay the exact areas that are actually contaminated, including boundaries, coordinates, and immediate decontamination needs. This makes it possible for incident command, hazmat, and decon teams to coordinate, allocate resources, and establish exclusion zones promptly. Site Survey focuses on documenting site features and potential hazards rather than transmitting confirmed contaminated zones. Initial Assessment records early hazard judgments and recommended actions but not the formal, ongoing mapping of actual contamination. After Action Report is used after the event to summarize what happened and lessons learned, not for real-time reporting of contamination areas.

4. Which of the following is a common glassware item found in chemical and biological production laboratories?

- A. Beaker**
- B. Ring Stand
- C. Thermometer
- D. Pipette

In laboratory work, the beaker stands out as a versatile container used for holding, mixing, and often heating liquids. Its wide mouth and straight sides make it ideal for quick estimates, pouring, and general-purpose tasks that occur in many chemical and biological production workflows. The ring stand is hardware used to support glassware, not a container. A thermometer is a measuring device for temperature, not something you use to hold or mix liquids. A pipette transfers precise small volumes, which is important but focuses on transfer rather than serving as the general-purpose glass container. For everyday, common glassware across these labs, the beaker is the best fit.

5. A combination of commercially available ingredients combined to create an explosive substance

- A. Improvised Explosive Device
- B. Homemade Explosives (HME)**
- C. Black Powder
- D. Triacetone Triperoxide

The idea being tested is how explosive materials are categorized by how they're made. When the description mentions combining readily available, commercially obtainable ingredients to form an explosive substance, it points to a general category of materials that can be assembled from common components rather than a specific device or a single defined compound. This is what "Homemade Explosives" refers to—a class of explosive substances produced from readily available ingredients. An improvised explosive device, while often built from improvised explosive materials, is about the overall device itself—the casing, initiator, and arrangement—more than the material makeup, so it isn't the best fit for describing the material that's been created from common ingredients. Black powder is a specific, older explosive with a defined recipe, not the broad concept of assembling an explosive substance from ordinary components. Triacetone triperoxide is a particular compound known for being homemade; it's a specific substance rather than the general category of explosives formed from everyday ingredients, which is what the description targets.

6. The near side, far side, box, star, bounce and bypass, course leg, or preselected dose rate techniques can be used when conducting a CBRN Survey.

A. During a CBRN Survey

B. During a monitoring session

C. During an Observational watch

D. During a Quantification task

These are field survey patterns used in a CBRN reconnaissance to systematically cover an area and detect hazards. The near side, far side, box, star, bounce and bypass, course leg, and preselected dose rate techniques are applied during a CBRN survey to ensure comprehensive coverage and consistent data collection, so you can locate contamination or dose-rate hotspots and map them accurately. They aren't typically described as part of a monitoring session, which focuses on ongoing checks in a specific location; nor as part of an observational watch, which is more about vigilance and general surveillance. They're also not a pure quantification task, which would center on precise numerical measurements at defined points.

7. Who exercises overall control of sample collection?

A. Operations Manager

B. Safety Officer

C. R&S element team leader

D. Field Technician

The main idea here is who has the authority to plan, authorize, and supervise how samples are collected during a reconnaissance mission. That responsibility rests with the R&S element team leader because they oversee the entire reconnaissance and surveillance team and coordinate its activities. They determine the sampling approach, assign tasks to team members, ensure consistent collection techniques to maintain sample integrity, and align the activities with mission objectives. They also handle practical decisions like when and where to collect, and manage the chain of custody and data quality, coordinating with safety and operations as needed. The other roles play important supporting parts but don't hold the overall control for sampling activities. The operations manager oversees the broader mission and resource allocation, not the day-to-day sampling decisions. The safety officer focuses on safety procedures and risk management rather than directing sample collection. A field technician carries out the actual collection work under supervision, not the authority to set the overall plan and direction for sampling.

8. Which condenser is the simplest, having only one tube and typically used for fractional distillation and high-temperature condensation?

- A. Water cooled condenser
- B. Liebig condenser
- C. Allihn condenser
- D. Air Cooled condenser**

The main idea here is that condensers vary in how many cooling surfaces and connections they have; the simplest design uses a single tube and relies on air rather than a water jacket for cooling. An air-cooled condenser is essentially a straight tube through which the vapor travels, with cooling provided by ambient air. Because it has no water jacket, no hoses, and fewer internal features, it is the simplest option. It handles high-temperature condensation well and can be used when water supply is limited or when you want to avoid running water through the setup. Other condensers add complexity or increase cooling surface: a water-cooled straight condenser has a water jacket and requires plumbing; a condenser with multiple internal tubes increases surface area for more efficient condensation, which is useful for fractional distillation but isn't as simple. So, the air-cooled, single-tube design is the straightforward, minimal-choice condenser.

9. What is the initial step when installing the memory card in the First Defender RMX?

- A. Shut down detector and open access door on the bottom side of the detector**
- B. Power on the detector and open the front panel
- C. Remove the memory card and reinsert while powered
- D. Connect USB cable to memory card

Powering down before handling internal components is essential to protect both the device and the data. The initial step is to shut down the detector and open the access door on the bottom side, which gives safe, unobstructed access to the memory card slot. When the unit is off, you reduce the risk of short circuits, electrical shock, or data corruption as you insert the card. Opening a door on the bottom aligns with how this model houses the memory slot and keeps the card insertion area protected during operation. In contrast, powering the unit on while accessing a panel can expose live circuitry; removing or reinserting a card while the device is powered also risks damaging the card or the socket, and using a USB connection isn't the method for installing the memory card on this device.

10. What materials can absorb laser energy and heat up, making them a possible source of ignition?

- A. Lighter colored solids
- B. Darker Colored Solids are most suitable**
- C. Clear liquids
- D. Gases

When a laser hits a material, ignition risk depends on how much of the laser energy the material absorbs and converts into heat. Pigments determine this absorption: darker colors contain compounds that absorb a broader range of wavelengths and more energy, so they heat up more quickly. That rapid heating can push the material toward its ignition temperature. Lighter colors reflect more of the light, so they absorb less energy and heat up less, reducing ignition risk. Clear liquids are often transparent to many laser wavelengths, letting energy pass through or spread with limited surface heating, and gases are typically poor at absorbing energy from common lasers, so they heat even less efficiently. So darker colored solids are most likely to absorb laser energy and heat up enough to ignite.

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://reconait.examzify.com>

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

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