

# Radiographic Testing Level 2 (RT-2) General Practice Exam (Sample)

## Study Guide



**Everything you need from our exam experts!**

**Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.**

**ALL RIGHTS RESERVED.**

**No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.**

**Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.**

**SAMPLE**

# Table of Contents

<b>Copyright</b> .....	<b>1</b>
<b>Table of Contents</b> .....	<b>2</b>
<b>Introduction</b> .....	<b>3</b>
<b>How to Use This Guide</b> .....	<b>4</b>
<b>Questions</b> .....	<b>5</b>
<b>Answers</b> .....	<b>8</b>
<b>Explanations</b> .....	<b>10</b>
<b>Next Steps</b> .....	<b>16</b>

SAMPLE

# 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

SAMPLE

- 1. Why is film fogging a concern in radiographic testing?**
  - A. It improves image definition**
  - B. It reduces image clarity, obscuring defects**
  - C. It has no effect on image quality**
  - D. It enhances background contrast**
  
- 2. What is the relationship between radiographic intensity and source activity for gamma ray sources?**
  - A. Intensity is inversely proportional to activity**
  - B. Intensity is independent of source activity**
  - C. Intensity is proportional to source activity**
  - D. Intensity varies with exposure time only**
  
- 3. Which factor is NOT a common influence on the quality of radiographic images?**
  - A. Film processing time**
  - B. Distance between the source and film**
  - C. MDT (Moisture Density Treatment)**
  - D. Exposure settings**
  
- 4. Which radiographic technique is typically used to detect hidden flaws within materials?**
  - A. Ultrasonic testing**
  - B. X-ray radiography**
  - C. Magnetic particle testing**
  - D. Visual inspection**
  
- 5. What is the purpose of a beam limiter?**
  - A. To enhance the radiation exposure**
  - B. To restrict the size of the radiation beam**
  - C. To increase the area of exposure**
  - D. To measure radiation levels**

- 6. What is the main cause of static marks on radiographic film?**
- A. Excessive exposure to radiation**
  - B. Poor film handling technique**
  - C. Incorrect developer temperature**
  - D. Low-quality film material**
- 7. A thin, jagged, dark line inside the weld image on radiographic film is most likely indicative of what?**
- A. A lack of fusion**
  - B. A crack**
  - C. Porosity**
  - D. An incomplete weld**
- 8. A change in what parameter necessitates a new X-ray exposure chart?**
- A. Film type**
  - B. Required film density**
  - C. Radiation source**
  - D. Exposure duration**
- 9. What would be considered a film artifact in radiography?**
- A. Static marks**
  - B. Pattern distortion**
  - C. Gradient errors**
  - D. Color shifts**
- 10. What is the main goal of a radiographic quality control program?**
- A. To reduce the cost of radiographic tests**
  - B. To ensure consistent image quality and safety in the testing process**
  - C. To simplify the radiographic testing process**
  - D. To increase the speed of image acquisition**

## Answers

SAMPLE

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

SAMPLE

## **Explanations**

SAMPLE

## 1. Why is film fogging a concern in radiographic testing?

- A. It improves image definition
- B. It reduces image clarity, obscuring defects**
- C. It has no effect on image quality
- D. It enhances background contrast

Film fogging is a significant concern in radiographic testing because it reduces image clarity, which can obscure critical defects in the material being tested. When film fog occurs, it introduces a haze or unwanted density to the radiographic image, making it difficult to differentiate between areas that contain actual flaws and those that do not. As a result, any defects that need to be identified for quality assurance or safety purposes may be missed or misinterpreted, leading to potentially serious consequences in the integrity of the tested components. The concern around film fogging highlights the importance of maintaining strict control over the radiographic environment, including factors like exposure to light, chemical processing conditions, and storage of the radiographic film. Ensuring minimal fogging is essential for achieving accurate and reliable results during inspections.

## 2. What is the relationship between radiographic intensity and source activity for gamma ray sources?

- A. Intensity is inversely proportional to activity
- B. Intensity is independent of source activity
- C. Intensity is proportional to source activity**
- D. Intensity varies with exposure time only

The relationship between radiographic intensity and source activity for gamma ray sources is characterized by direct proportionality. In practical terms, this means that as the source activity increases, the intensity of the radiation emitted also increases. This can be understood through the concept that a higher activity level of the gamma ray source means that more radioactive atoms are undergoing decay, which leads to a greater number of gamma photons being emitted per unit of time. This principle is essential in radiographic testing, as it directly affects the quality and penetrative power of the radiographic image. Greater intensity translates into a stronger signal received by the detector, enhancing the visibility of details in the radiograph. In contrast, if intensity were inversely proportional to activity, that would imply that increasing the source activity would result in a decrease in intensity, which contradicts the fundamental physics of radioactive decay and radiation emission. Saying the intensity is independent of source activity would disregard the inherent properties of gamma radiation production, as the number of emissions is contingent on the activity level. Likewise, the idea that intensity varies with exposure time only would ignore the fact that the activity level directly influences the intensity regardless of how long the exposure is performed. Therefore, the correct answer highlights the intrinsic relationship between the source activity of

**3. Which factor is NOT a common influence on the quality of radiographic images?**

- A. Film processing time**
- B. Distance between the source and film**
- C. MDT (Moisture Density Treatment)**
- D. Exposure settings**

The quality of radiographic images is influenced by multiple factors that directly affect the clarity, contrast, and overall visibility of the internal structures being examined. Among the listed factors, moisture density treatment (MDT) is not typically recognized as a common influence on radiographic image quality. In radiography, key elements such as film processing time, distance between the radiation source and the film, and exposure settings play critical roles. Film processing time affects the development of the radiograph, with underdeveloping or over-developing potentially leading to poor image quality. The distance between the source of radiation and the film impacts the intensity of radiation that the film receives; a greater distance can result in a decrease in the image density and potentially cause blurring. Exposure settings, including time, voltage, and current, directly contribute to the amount of radiation that reaches the film, thereby influencing the film's contrast and detail. Since MDT is not a standard factor impacting image quality in the context of traditional radiographic testing, it stands out as the correct answer in this scenario.

**4. Which radiographic technique is typically used to detect hidden flaws within materials?**

- A. Ultrasonic testing**
- B. X-ray radiography**
- C. Magnetic particle testing**
- D. Visual inspection**

X-ray radiography is a widely utilized technique in non-destructive testing for detecting hidden flaws within various materials. This method employs X-rays or gamma rays to penetrate the material and create a radiographic image on a film or digital detector. The resulting image provides a detailed view of the internal structure, allowing for the identification of defects such as cracks, voids, inclusions, and structural inconsistencies that may not be visible from the surface. One of the primary advantages of X-ray radiography is its ability to reveal internal flaws that are not detectable by other techniques, which may only assess surface characteristics or require direct access to the component's interior. By capturing a comprehensive view of the material, X-ray radiography helps ensure integrity and safety in various applications, from aerospace to construction and manufacturing. In comparison, while the other methods listed are valuable for specific types of flaws, they each have limitations. Ultrasonic testing is excellent for detecting internal defects but relies on sound waves and may require a skilled operator to interpret the data accurately. Magnetic particle testing is effective for identifying surface and near-surface flaws in ferromagnetic materials, making it unsuitable for non-magnetic materials or for detecting deeper issues. Visual inspection, while fundamental and cost-effective, is limited

**5. What is the purpose of a beam limiter?**

- A. To enhance the radiation exposure**
- B. To restrict the size of the radiation beam**
- C. To increase the area of exposure**
- D. To measure radiation levels**

The purpose of a beam limiter is to restrict the size of the radiation beam. This function is critical in radiographic testing as it helps to minimize the area that is irradiated, which has several important benefits. By limiting the beam size, the amount of radiation exposure to both the subject and personnel can be significantly reduced. This not only protects individuals from unnecessary radiation but also enhances the quality of the image by reducing scatter radiation that can degrade image contrast. Additionally, properly limiting the beam size is in line with the principle of "As Low As Reasonably Achievable" (ALARA), which emphasizes the importance of minimizing radiation exposure in all radiographic practices. When the beam is confined to only the area of interest, it leads to clearer images and better diagnostic quality, as well as more accurate evaluations of the materials being tested. Therefore, limiting the beam size plays a vital role in enhancing safety and effectiveness in radiographic testing.

**6. What is the main cause of static marks on radiographic film?**

- A. Excessive exposure to radiation**
- B. Poor film handling technique**
- C. Incorrect developer temperature**
- D. Low-quality film material**

Static marks on radiographic film are primarily caused by poor film handling techniques, which include improper storage, inadequate environmental controls, or mishandling during processing. When films are subjected to friction, such as being rubbed against other films or surfaces, they can accumulate static electricity. This buildup can lead to the formation of visible marks on the film once it is exposed to radiation and developed. Effective film handling techniques are essential to minimize static electricity and ensure that the quality of the radiographic image is preserved. This involves keeping films in appropriate environments, using anti-static equipment, and ensuring that proper protocols are followed during handling and processing to prevent physical contact that can generate static. In contrast, while excessive exposure to radiation, incorrect developer temperature, and low-quality film material may negatively impact the overall quality of the radiographic image or lead to other types of artifacts, they are not the primary reasons for the specific issue of static marks. Proper understanding and implementation of handling techniques are crucial in the context of radiographic testing to ensure high-quality results.

**7. A thin, jagged, dark line inside the weld image on radiographic film is most likely indicative of what?**

- A. A lack of fusion**
- B. A crack**
- C. Porosity**
- D. An incomplete weld**

A thin, jagged, dark line inside the weld image on radiographic film is most commonly associated with the presence of a crack. This appearance is characteristic of cracks because they tend to create sharp, defined edges which contrast with the surrounding material. In radiographic testing, cracks are often detected as irregular, dark lines due to the way they disrupt the path of X-rays or gamma rays, allowing more radiation to penetrate and expose the film in those areas. The jagged nature of the line can be interpreted as evidence of the crack's irregular shape, further reinforcing the likelihood that it represents a defect in the weld. Cracks can occur due to a variety of factors, including thermal stresses, improper weld technique, or material properties, which highlight the importance of identifying them during quality control processes. In contrast, other potential indications such as a lack of fusion might present as wider, more uniform areas without defined edges, while porosity typically appears as small, round spots rather than linear features. Incomplete welds can also manifest differently and may present with a range of discontinuities. Understanding these distinctions helps technicians accurately interpret radiographic images and identify specific types of weld defects.

**8. A change in what parameter necessitates a new X-ray exposure chart?**

- A. Film type**
- B. Required film density**
- C. Radiation source**
- D. Exposure duration**

A change in required film density is significant because it directly affects the way a radiographic exposure chart is developed and utilized. The exposure chart is a critical tool that guides the radiographic technique needed to achieve optimal film density for the specific materials or conditions being tested. Film density refers to the degree of darkening or blackness on a radiograph, which is influenced by multiple factors such as exposure time, kilovoltage peak (kVp), milliamperage (mA), and the type of film used. If the required film density changes, it indicates that the radiographic technique must be adjusted to ensure that the final radiograph meets the necessary contrast and visibility standards. This change often results in recalibrating exposure times and other settings to accommodate the desired density level. While other factors like film type, the radiation source, and exposure duration are important considerations in the overall radiographic process, a change in required film density is particularly crucial, as it affects how all other parameters contribute to achieving a suitable radiograph for interpretation. Without an updated exposure chart reflecting the new requirements, there could be a risk of inadequate or excessive exposure, which would compromise the quality of the radiographic results.

## 9. What would be considered a film artifact in radiography?

- A. Static marks**
- B. Pattern distortion**
- C. Gradient errors**
- D. Color shifts**

A film artifact in radiography refers to any unwanted feature that appears on a radiographic image, which can detract from the quality of the image and may mislead interpretation. Static marks are a specific type of film artifact caused by static electricity, which can create lines or spots on the radiograph that can obscure important details or mimic actual indications of defects. Static marks often occur when dry film is exposed to low humidity, leading to a buildup of static electricity that discharges and creates these artifacts during processing. This makes them recognizable and distinct from other types of imperfections that may arise from the radiographic process or equipment. The other options, while they can impact the quality or clarity of an image, do not classify as film artifacts in the traditional sense. Pattern distortion relates to the way the image is displayed and can stem from improper alignment or positioning during exposure, while gradient errors and color shifts are typically associated with issues in development or calibration of imaging systems. These factors affect image quality as well but do not fall under the category of film artifacts in the same way that static marks do.

## 10. What is the main goal of a radiographic quality control program?

- A. To reduce the cost of radiographic tests**
- B. To ensure consistent image quality and safety in the testing process**
- C. To simplify the radiographic testing process**
- D. To increase the speed of image acquisition**

The primary aim of a radiographic quality control program is to ensure consistent image quality and safety in the testing process. This is crucial in maintaining the integrity of the radiographic testing results, as high-quality images are essential for accurate interpretation. Consistency in image quality helps to eliminate variables that can affect the radiographic results, leading to reliable and repeatable findings, which is vital for the safety and compliance in various industries, such as construction and manufacturing. A robust quality control program also oversees safety protocols. It ensures that equipment is functioning correctly and that the radiographer adheres to safety standards, minimizing the risks associated with radiation exposure. While factors like cost reduction, process simplification, or increasing speed may be beneficial, they do not represent the fundamental goals of quality control in radiographic testing. The emphasis is on maintaining high standards of image quality and safety to ensure the effectiveness of the testing process.

## 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](mailto:hello@examzify.com).**

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

**<https://rt2general.examzify.com>**

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

SAMPLE