

NONDESTRUCTIVE TESTING (NDT) UT LEVEL II PRACTICE TEST (SAMPLE)

STUDY GUIDE



Prepare with structure. Pass with confidence



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

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

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. Ultrasonic waves or vibrations are defined as sound waves of frequency greater than approximately how many Hertz?**
 - A. 10,000 Hertz
 - B. 15,000 Hertz
 - C. 20,000 Hertz
 - D. 25,000 Hertz
- 2. What is the relationship between the angle of incidence and the angle of reflection?**
 - A. Angle of incidence is greater than angle of reflection
 - B. Angle of incidence is less than angle of reflection
 - C. Angle of incidence is equal to angle of reflection
 - D. There is no relationship
- 3. What is the process of comparing an instrument with a standard called?**
 - A. Calibration
 - B. Validation
 - C. Verification
 - D. Confirmation
- 4. In immersion testing, maximum reflection from the entry surface indicates what?**
 - A. Normalization of the search unit
 - B. Elimination of water multiples
 - C. Proper wavelength
 - D. Max amplitude of the initial pulse
- 5. What automatically happens to the ultrasonic signal when it reflects off the back surface of a material?**
 - A. It strengthens
 - B. It diminishes
 - C. It remains unchanged
 - D. It turns into a longitudinal wave

- 6. What are some advantages of immersion testing?**
- A. Low equipment cost
 - B. Increased inspection speed
 - C. Reduced necessity for calibration
 - D. Simplicity of operation
- 7. Which frequency is generally considered low frequency for ultrasonic testing?**
- A. 1 MHz
 - B. 5 MHz
 - C. 10 MHz
 - D. 25 MHz
- 8. Why is surface preparation important for ultrasonic testing?**
- A. It makes the test easier to conduct
 - B. Proper surface preparation ensures good sound coupling and reduces interference from surface conditions
 - C. It guarantees higher testing speed
 - D. It eliminates the need for reference standards
- 9. Ultrasonic data presented in a form representative of the cross-section of the test specimen is called what?**
- A. A-scan presentation
 - B. B-scan presentation
 - C. C-scan presentation
 - D. D-scan presentation
- 10. Which factor does not typically affect the performance of ultrasonic testing?**
- A. Material thickness
 - B. Surface finish of the material
 - C. Environmental temperature
 - D. Color of the material being tested

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Ultrasonic waves or vibrations are defined as sound waves of frequency greater than approximately how many Hertz?

- A. 10,000 Hertz
- B. 15,000 Hertz
- C. 20,000 Hertz**
- D. 25,000 Hertz

Ultrasonic waves or vibrations are indeed defined as sound waves that have a frequency greater than approximately 20,000 Hertz. This distinguishes ultrasonic sounds from audible sounds, which typically fall within the frequency range of 20 Hz to 20,000 Hz that the average human ear can perceive. This threshold of 20,000 Hertz is important in various applications, including medical imaging, industrial testing, and cleaning processes, where ultrasonic frequencies are utilized for their ability to penetrate materials and produce detailed information about their internal structures, while remaining inaudible to human perception. The other frequency choices mentioned do not align with the commonly accepted definition of ultrasonic sounds. Frequencies such as 10,000 Hz and 15,000 Hz, while higher than normal speech, still fall within the audible range for humans and are considered high-frequency sounds rather than ultrasonic. Frequencies above 25,000 Hz are also considered ultrasonic, but 20,000 Hz is recognized as the lower limit to qualify as ultrasonic, making it the most appropriate answer for this question.

2. What is the relationship between the angle of incidence and the angle of reflection?

- A. Angle of incidence is greater than angle of reflection
- B. Angle of incidence is less than angle of reflection
- C. Angle of incidence is equal to angle of reflection**
- D. There is no relationship

The relationship between the angle of incidence and the angle of reflection is defined by the law of reflection, which states that the angle of incidence is equal to the angle of reflection. This principle is fundamental in the field of optics and applies to wave phenomena, including ultrasound waves used in nondestructive testing. When an ultrasonic wave strikes a boundary between different media, it behaves according to this law. The angle at which the wave approaches the boundary (the angle of incidence) will be the same as the angle at which it reflects away from that boundary (the angle of reflection). This relationship is crucial for interpreting ultrasonic signals and ensuring accurate measurements and inspections during testing processes. Understanding this concept helps in efficiently directing ultrasonic waves towards flaws and accurately assessing their characteristics during NDT evaluations.

3. What is the process of comparing an instrument with a standard called?

- A. Calibration**
- B. Validation
- C. Verification
- D. Confirmation

The correct term for the process of comparing an instrument with a standard is calibration. Calibration is essential in ensuring that the measurements taken by the instrument are accurate and meet certain predefined standards. During calibration, an instrument is tested against a recognized standard or reference to determine any discrepancies in its measurements, allowing for adjustments or corrections to be made. This process is vital in many fields, including nondestructive testing, where precision is crucial for identifying defects or irregularities in materials. Calibration helps to ensure that results are reliable and repeatable, which is crucial when making assessments based on data gathered from instruments. Validation generally refers to the process of confirming that a method or system meets defined requirements and performs as expected in various conditions. Verification is often used in the context of ensuring that a specific component or system complies with regulations or standards. Confirmation can imply affirming the accuracy or reliability of information but does not specifically denote the comparative aspect inherent in calibration.

4. In immersion testing, maximum reflection from the entry surface indicates what?

- A. Normalization of the search unit**
- B. Elimination of water multiples
- C. Proper wavelength
- D. Max amplitude of the initial pulse

In immersion testing, maximum reflection from the entry surface typically indicates the optimization of the search unit's alignment with the test material. This optimal alignment facilitates the most efficient transmission of ultrasonic waves into the material, resulting in a strong return signal from the entry surface. When the search unit is properly normalized, it means that it has been calibrated to work effectively with the characteristics of the material being tested and the medium, in this case, water. A strong reflection not only confirms that the sound waves are passing into the material but also that there are minimal losses or distortions occurring at the entry interface. In contrast, the other options do not directly relate to the concept of achieving maximum reflection from the entry surface. Eliminating water multiples pertains to mitigating unwanted echoes in the water, while ensuring proper wavelength relates to factors such as frequency and material characteristics, but not directly to surface reflection. The max amplitude of the initial pulse is more about the intensity of the wave being generated rather than the conditions that affect surface reflection in immersion testing.

5. What automatically happens to the ultrasonic signal when it reflects off the back surface of a material?

- A. It strengthens
- B. It diminishes
- C. It remains unchanged**
- D. It turns into a longitudinal wave

When the ultrasonic signal reflects off the back surface of a material, it remains unchanged in its form in terms of the type of wave. The reflection from the back surface typically does not alter the nature of the wave; it remains a longitudinal wave. Although the amplitude of the wave may change due to factors such as material properties, distance, and attenuation, the signal itself, upon reflection, does not change its characterization as a longitudinal wave. In practical scenarios, the amplitude may diminish due to absorption and scattering within the material, which can impact the strength of the reflected signal. However, in the context of the type of wave, the fundamental nature of the signal remains consistent as it reflects back through the material. This understanding is crucial in ultrasonic testing, where the analysis of reflected waves is essential for evaluating material integrity and detecting flaws.

6. What are some advantages of immersion testing?

- A. Low equipment cost
- B. Increased inspection speed**
- C. Reduced necessity for calibration
- D. Simplicity of operation

Immersion testing offers several distinct advantages, with increased inspection speed being a significant benefit. This type of ultrasonic testing involves submerging both the transducer and the test specimen in a tank of water or other couplant. The medium allows ultrasonic waves to travel more efficiently and at a consistent speed, reducing the time it takes to gather sufficient data for effective inspection. Additionally, the consistent acoustic properties of the liquid medium enhance the testing process, allowing for quicker and more reliable detection of flaws within materials. The method improves the throughput of inspections, which is particularly advantageous in industrial settings where time efficiency is critical. While low equipment cost, reduced necessity for calibration, and simplicity of operation can be considerations in other contexts, they do not inherently apply to immersion testing in the same way as the speed advantage does. For instance, immersion testing requires specialized equipment like tanks and can sometimes lead to increased setup time. Therefore, the ability to conduct faster inspections while maintaining accuracy is what primarily distinguishes immersion testing as an advantageous method.

7. Which frequency is generally considered low frequency for ultrasonic testing?

- A. 1 MHz**
- B. 5 MHz
- C. 10 MHz
- D. 25 MHz

In ultrasonic testing (UT), frequency plays a crucial role in determining the capabilities and limitations of the ultrasonic waves used for inspection. Generally, frequencies below 5 MHz are classified as low frequency. Frequencies in this range are used for inspecting thicker materials and can better penetrate through them, providing satisfactory data for different types of materials and structures. A frequency of 1 MHz is particularly beneficial for applications involving larger and denser materials. Lower frequencies have longer wavelengths, which allows them to travel deeper into the material without being significantly attenuated. They are effective for detecting larger flaws or discontinuities and are often used in applications like weld inspections or testing of large components where depth of penetration is more critical than resolution. Higher frequencies, such as 5 MHz, 10 MHz, and 25 MHz, are typically considered mid-range to high frequencies. These frequencies provide better resolution, capable of detecting smaller flaws, but their penetration ability is reduced compared to lower frequencies. Consequently, they are more suited for thinner materials and surfaces where greater detail is required. Therefore, the choice of using a 1 MHz frequency aligns with the needs of many applications that require deeper penetration and the ability to handle thicker materials effectively.

8. Why is surface preparation important for ultrasonic testing?

- A. It makes the test easier to conduct
- B. Proper surface preparation ensures good sound coupling and reduces interference from surface conditions**
- C. It guarantees higher testing speed
- D. It eliminates the need for reference standards

Surface preparation is crucial for ultrasonic testing because it directly influences the quality and reliability of the test results. Proper surface preparation ensures good sound coupling, which is essential for the accurate transmission of ultrasonic waves from the transducer into the material being tested. If the surface is dirty, rough, or contaminated, it can create gaps that hinder the transmission of sound waves, potentially leading to unreliable readings or missed defects. Additionally, a well-prepared surface minimizes interference from surface conditions. Imperfections such as rust, paint, or scale can scatter the ultrasonic waves, complicating the interpretation of the results. By preparing the surface adequately, testers can ensure that the sound waves penetrate the material effectively, allowing for a clearer assessment of any internal flaws or irregularities. This improves the overall reliability of the NDT process and enhances the validity of the findings.

9. Ultrasonic data presented in a form representative of the cross-section of the test specimen is called what?

- A. A-scan presentation
- B. B-scan presentation**
- C. C-scan presentation
- D. D-scan presentation

The correct answer is the B-scan presentation, which effectively represents the cross-sectional view of a test specimen in ultrasonic testing. In a B-scan, the amplitude of received ultrasound signals is plotted along a secondary axis, typically against depth, while the other axis represents the position of the transducer. This creates a two-dimensional image that captures the internal features and structure of the tested material, making it easier to identify flaws and discontinuities within that cross-section. A-scan presentations offer a one-dimensional view, displaying the amplitude of echo signals as a function of time, which is useful for measuring thickness or detecting presence of discontinuities but does not visualize a cross-section. C-scan presentations, on the other hand, provide a top view in a plan-like manner, where different colors or shades indicate material properties or thickness variations over a surface, but do not demonstrate depth information. D-scan is not a standard term used in ultrasonic testing.

10. Which factor does not typically affect the performance of ultrasonic testing?

- A. Material thickness
- B. Surface finish of the material
- C. Environmental temperature
- D. Color of the material being tested**

The factor that does not typically affect the performance of ultrasonic testing is the color of the material being tested. Ultrasonic testing (UT) relies primarily on the transmission of sound waves through a material and the ability of those waves to reflect from various internal features or discontinuities. The physical properties of the material, such as density, elasticity, and thickness, have a significant impact on how sound waves travel through it. Color, on the other hand, is mostly a surface property related to how light is absorbed or reflected, and it does not influence the acoustic properties or the interaction of sound waves with the material's internal structure. Consequently, while material thickness, surface finish, and environmental temperature are critical factors that can influence the effectiveness and accuracy of ultrasonic testing, color plays no role in this 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.

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

<https://ndtutlevel2.examzify.com>

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

SAMPLE