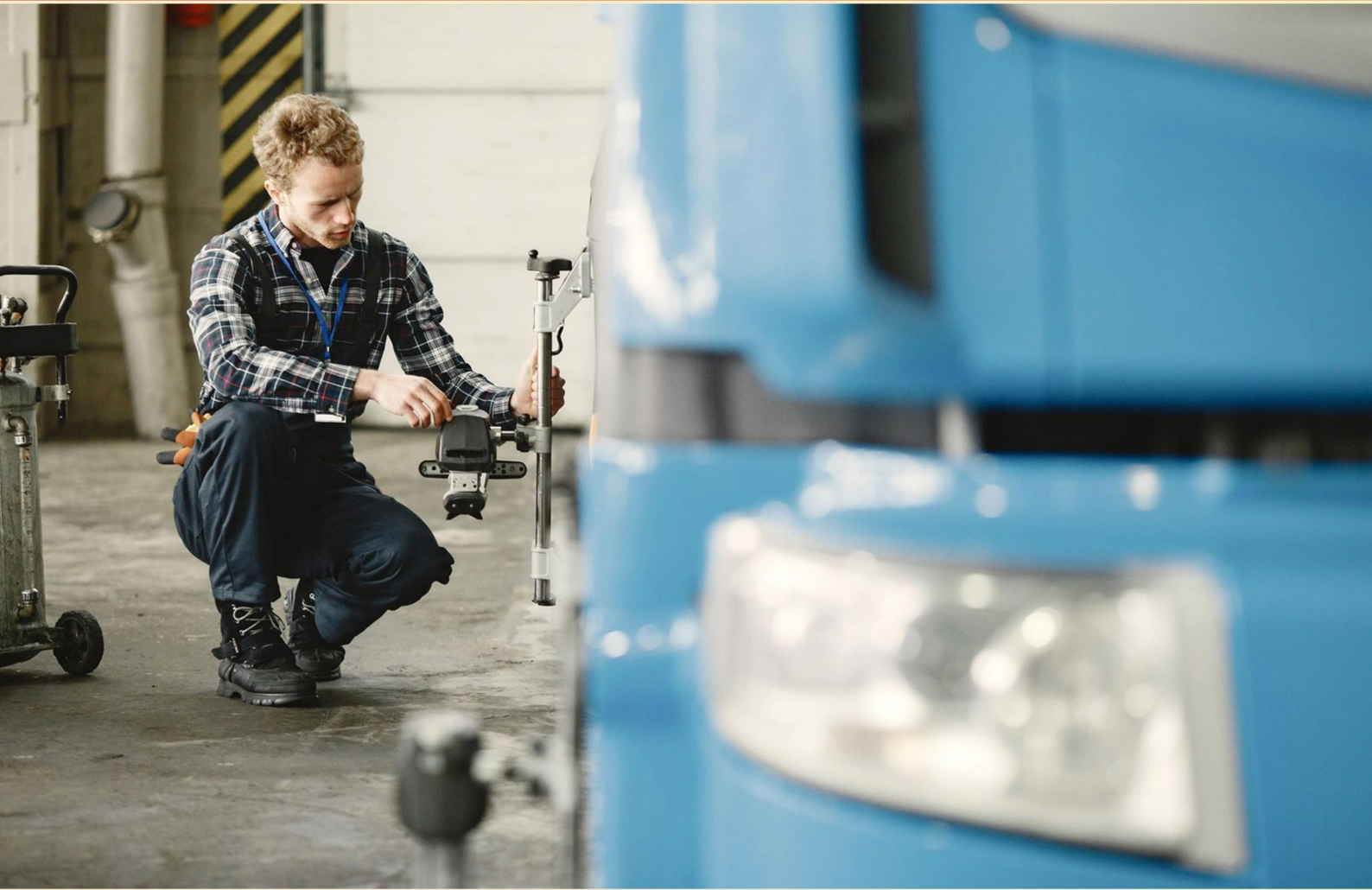


NORTH CAROLINA CDL AIR BRAKES PRACTICE TEST (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

<https://nccdlairbrakes.examzify.com>



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	15

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. On a downgrade, the use of air brakes is considered a supplement to what?**
 - A. The engine's braking effect
 - B. The accelerator's power
 - C. The clutch system
 - D. The safety lights
- 2. If a low air pressure warning occurs for only one system in a dual air brake system, what is the correct action?**
 - A. Continue driving cautiously
 - B. Stop and safely park until fixed
 - C. Check only the functioning system
 - D. Ignore the warning if it is minor
- 3. What does the term "fail-safe" mean in reference to spring brakes?**
 - A. They require manual engagement
 - B. They automatically engage when the air pressure is lost
 - C. They improve fuel efficiency
 - D. They help in accelerating speed
- 4. What could happen if air tanks are not drained regularly?**
 - A. The engine may fail
 - B. The brake system could become more efficient
 - C. Brakes could freeze in cold temperatures
 - D. The brakes could fail
- 5. Where in the air brake system is the pressure typically monitored?**
 - A. Within the compressor directly
 - B. At the brake pads
 - C. Using a gauge on the dashboard
 - D. In the air storage tank
- 6. What is the minimum air pressure required to operate the air brakes safely?**
 - A. 80 psi
 - B. 90 psi
 - C. 100 psi
 - D. 110 psi

- 7. Your truck has a dual air system and one of the systems loses its pressure. What will happen?**
- A. Both brake systems will continue to operate
 - B. Neither brake system will function
 - C. Either the front or back brake will not be fully operational
 - D. The truck will come to an immediate stop
- 8. What is the main purpose of the air brake system in commercial vehicles?**
- A. To provide effective acceleration and speed
 - B. To provide effective braking power and control for large vehicles
 - C. To enhance fuel efficiency of the vehicle
 - D. To improve visibility conditions
- 9. What is the purpose of controlled braking?**
- A. To accelerate quickly
 - B. To maintain a straight line when stopping
 - C. To reduce engine wear
 - D. To enhance tire grip
- 10. What is the typical air pressure for a fully charged air brake system?**
- A. 100 psi
 - B. 110 psi
 - C. 125 psi
 - D. 130 psi

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. On a downgrade, the use of air brakes is considered a supplement to what?

A. The engine's braking effect

B. The accelerator's power

C. The clutch system

D. The safety lights

The correct choice highlights that air brakes on a downgrade assist and enhance the braking effectiveness of the engine's braking system. When descending a hill or a steep grade, the vehicle's weight can significantly increase the risk of losing control due to acceleration from gravity. The engine's braking effect, often achieved by downshifting to lower gears, helps to slow down the vehicle naturally. Air brakes are used in conjunction with this engine braking to provide additional stopping power, ensuring that the vehicle remains under control and does not gain excessive speed. This combination is especially vital for larger vehicles, such as trucks, which may have more momentum when descending hills. By effectively utilizing both the engine's braking capacity and the air brakes, drivers can maintain safer speeds and enhance overall driving safety on downgrades.

2. If a low air pressure warning occurs for only one system in a dual air brake system, what is the correct action?

A. Continue driving cautiously

B. Stop and safely park until fixed

C. Check only the functioning system

D. Ignore the warning if it is minor

A low air pressure warning for one system in a dual air brake system signifies a potential failure in that braking system, which could jeopardize vehicle safety. The correct action in this scenario is to stop and safely park the vehicle until the issue is fixed. This is crucial because the dual air brake system is designed for redundancy; if one system experiences a problem, the other may not be enough to ensure safe stopping. Continuing to drive could lead to a complete brake failure, posing a significant risk to the driver and others on the road. Addressing the issue immediately by pulling over allows for a thorough check of the braking systems and prevents the possibility of a serious accident caused by inadequate braking power. Ignoring or downplaying the warning can lead to catastrophic consequences, which is why immediate action is vital.

3. What does the term "fail-safe" mean in reference to spring brakes?

A. They require manual engagement

B. They automatically engage when the air pressure is lost

C. They improve fuel efficiency

D. They help in accelerating speed

The term "fail-safe" in reference to spring brakes indicates that these brakes are designed to automatically engage when the air pressure is lost. This is a crucial safety feature in vehicles equipped with air brake systems, especially large commercial vehicles. The purpose of this design is to ensure that if there is a failure in the air brake system, such as a loss of air pressure due to a leak, the spring brakes will activate to bring the vehicle to a stop. This mechanism helps prevent accidents that could occur if the driver loses braking ability due to an air pressure loss, thereby enhancing overall safety on the road. The automatic engagement of spring brakes serves as a reliable backup system, ensuring that the vehicle can still be controlled even in adverse conditions, reinforcing the importance of safety in heavy vehicle operation.

4. What could happen if air tanks are not drained regularly?

- A. The engine may fail
- B. The brake system could become more efficient
- C. Brakes could freeze in cold temperatures
- D. The brakes could fail**

Regularly draining air tanks is crucial for the proper functioning of air brake systems. Over time, moisture and contaminants can accumulate in the air tanks due to humidity and temperature changes. If this accumulation is not addressed, it can lead to various issues, one of which is brake failure. The presence of water in the air brake system can cause corrosion and ice formation, especially in cold temperatures, which directly affects the performance and reliability of the brakes. When moisture freezes, it can block the air lines or compressors, leading to a situation where the brakes may not release or engage properly, resulting in a significant risk to vehicle safety. Thus, regular drainage of air tanks is essential to maintain the integrity of the air brake system and prevent potential brake failure. Maintaining this system helps ensure efficient operation and safety on the road.

5. Where in the air brake system is the pressure typically monitored?

- A. Within the compressor directly
- B. At the brake pads
- C. Using a gauge on the dashboard**
- D. In the air storage tank

The pressure in the air brake system is typically monitored using a gauge on the dashboard. This gauge provides the driver with real-time information about the air pressure in the system, which is crucial for safe operation. Maintaining proper air pressure is essential for the effective functioning of air brakes, as insufficient pressure can lead to brake failure or diminished braking capability. By having a gauge on the dashboard, drivers can easily keep an eye on the pressure levels without the need for complicated inspections or checks. It allows for prompt action if the pressure drops below the necessary levels, ensuring that the vehicle remains safe to operate. This monitoring system is part of the overall safety features of modern vehicles, emphasizing the importance of driver awareness regarding brake function.

6. What is the minimum air pressure required to operate the air brakes safely?

- A. 80 psi
- B. 90 psi**
- C. 100 psi
- D. 110 psi

For air brakes to operate safely and effectively, a minimum air pressure of 90 psi is required. This pressure ensures that the braking system can function reliably, allowing for adequate force to be applied to the brakes when engaged. The air pressure is crucial because it affects how quickly and efficiently the brakes respond when a driver initiates a stop. Operating below this threshold can lead to diminished braking performance, increasing the risk of accidents due to insufficient stopping power. Higher values like 100 psi or 110 psi can indeed improve system responsiveness but are not necessary for basic safe operation. Therefore, 90 psi represents the established standard minimum pressure that helps maintain safety while still allowing for effective use of air brake systems in commercial vehicles.

7. Your truck has a dual air system and one of the systems loses its pressure. What will happen?

- A. Both brake systems will continue to operate
- B. Neither brake system will function
- C. Either the front or back brake will not be fully operational**
- D. The truck will come to an immediate stop

In a dual air brake system, each air system is responsible for a separate set of brakes on the vehicle, typically one for the front brakes and one for the rear brakes. When one of these air systems loses its pressure, the other system will still be intact and functional. Choosing that either the front or back brake will not be fully operational reflects the design of a dual air brake system. This system is intended to enhance safety by ensuring that if one set of brakes fails, the other set can still provide stopping power. While the truck will still be able to operate, it may not have full braking capabilities, which can lead to reduced stopping distance and increased difficulty in controlling the vehicle. Understanding this function is crucial for maintaining safety on the road, especially in emergency situations where both sets of brakes could be necessary for effective stopping.

8. What is the main purpose of the air brake system in commercial vehicles?

- A. To provide effective acceleration and speed
- B. To provide effective braking power and control for large vehicles**
- C. To enhance fuel efficiency of the vehicle
- D. To improve visibility conditions

The air brake system in commercial vehicles is fundamentally designed to provide effective braking power and control for large vehicles. Given the size and weight of these vehicles, traditional braking systems may not deliver adequate stopping force. The air brake system works using compressed air to push the brake pads against the brake drums or discs, enabling the vehicle to stop safely while managing the immense mass that could otherwise lead to longer stopping distances or decreased control. This system is essential for ensuring that the vehicle can maintain stability and safety during operation, especially when carrying heavy loads or navigating complex driving conditions. While enhancing fuel efficiency, improving visibility conditions, and providing acceleration might be beneficial attributes in vehicle design, they are not the primary functions of the air brake system. The emphasis on braking capability is critical, as it directly affects the safety and performance of large commercial vehicles on the road.

9. What is the purpose of controlled braking?

- A. To accelerate quickly
- B. To maintain a straight line when stopping**
- C. To reduce engine wear
- D. To enhance tire grip

Controlled braking is an essential technique used primarily to maintain vehicle control while slowing down or stopping, especially in emergency situations. When a driver practices controlled braking, they apply pressure to the brakes steadily rather than slamming them. This method allows the driver to keep the vehicle in a straight line, which is crucial for avoiding skidding or loss of control during the stopping process. Maintaining a straight trajectory not only ensures the safety of the driver and passengers but also minimizes the risk of accidents with surrounding vehicles or obstacles. The effectiveness of controlled braking becomes especially apparent in adverse weather conditions, where roads may be slippery. By using controlled braking, a driver can more effectively manage the vehicle's traction and stability, enabling them to stop safely without veering off course.

10. What is the typical air pressure for a fully charged air brake system?

- A. 100 psi
- B. 110 psi
- C. 125 psi**
- D. 130 psi

The typical air pressure for a fully charged air brake system is 125 psi. This pressure is crucial because it ensures that the brakes can function effectively and guarantee the proper operation and safety of the vehicle. An air brake system operates best within this pressure range, allowing the various components, such as the brake chambers and the air lines, to work efficiently in applying the brakes when needed. Maintaining a pressure of 125 psi allows for quick and responsive braking. A fully charged system provides the necessary reserve to handle sudden braking needs and ensures that the brakes engage smoothly without delay. Additionally, it is within the standard specifications set by manufacturers and regulatory agencies, which helps in maintaining uniform safety standards across commercial vehicles. This pressure also allows for effective air reservoir functionality, which is crucial for reliably maintaining braking performance over time, preventing issues that can arise from both insufficient and excessive pressures.

SAMPLE

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://nccdlairbrakes.examzify.com>

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

SAMPLE