NORTHEASTERN APPRENTICESHIP AND TRAINING (NEAT) 1-6 PRACTICE TEST PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR THE FULL VERSION STUDY GUIDE

https://neat16.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.

SAMPLE

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!

SAMPLE

Questions

SAMPLE

1. In terms of electric cables, what is the role of insulation shielding?

A. To enhance the speed of electrical flow

B. To increase the thermal capacity

C. To prevent interference and assure safety

D. To reduce weight

2. Ducts that terminate in a manhole should have what component at their end?

A. End bells

B. Duct Terminators

C. Both End bells and Duct Terminators

D. Conduit caps

3. Under what condition can the voltage on a neutral become very high?

A. During normal operation

B. Line to ground fault

C. Short circuit condition

D. Overload condition

4. Power cables use stranded conductors at which sizes?

A. Smaller than 2 AWG

B. 2 AWG and above

C. Only above 4 AWG

D. 1 AWG to 3 AWG

5. What is one of the five factors dictating cable insulation type?

A. Cost of materials

B. Length of cable

C. Type of Installation

D. Color of insulation

6. What characterizes the IT grounding method?

A. Direct connection to ground

B. No connection to ground in the distribution system

C. Grounding through multiple points

D. Generally used in residential areas

SAMPLE

7. In a delta circuit, where should trucks be grounded?

A. At the neutral point

B. On a driven ground rod

C. At the transformer

D. At the truck battery

8. A worker should not travel more than how far to reach egress from an excavation?

A. 20 feet

B. 25 feet

C. 30 feet

D. 35 feet

9. How thick is the concrete envelope that typically surrounds an encased duct?

A. 2 inches

B. 3 inches

C. 4 inches

D. 5 inches

10. How far from the surface should red tape be placed to warn anyone digging of energized cables?

A. 2 feet

B. 1 foot

C. 3 feet

D. 4 feet

SAMPLE

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. In terms of electric cables, what is the role of insulation shielding?

A. To enhance the speed of electrical flow

B. To increase the thermal capacity

C. To prevent interference and assure safety

D. To reduce weight

Insulation shielding serves a crucial role in electric cables primarily by preventing interference and ensuring safety. This type of shielding protects the conductors within the cable from external electromagnetic interference (EMI) that could disrupt communication signals or power transmission. By providing a barrier against such interference, insulation shielding helps maintain the integrity and reliability of electrical and data signals. Additionally, insulation shielding is essential for safety. It prevents accidental contact with live wires, reducing the risk of electrical shocks and short circuits. This protective layer can also reduce heat build-up, contributing to the overall safety of electrical installations. The other options do not accurately reflect the primary function of insulation shielding. While enhancing speed of electrical flow and increasing thermal capacity are related to wire design and materials used, they are not main benefits of insulation shielding. Similarly, reducing weight may be a factor in specific cable designs, but it is not the main purpose of insulation shielding.

2. Ducts that terminate in a manhole should have what component at their end?

A. End bells

B. Duct Terminators

C. Both End bells and Duct Terminators

D. Conduit caps

The inclusion of both end bells and duct terminators at the ends of ducts that terminate in a manhole is essential for several reasons. End bells are used to guide the flow of air or to direct it smoothly into the duct system, helping to reduce turbulence and potential for damage to the ductwork. They also help in preventing debris from entering the duct, thus maintaining the integrity of the air or materials being transferred. Duct terminators serve a complementary purpose by providing a finished or sealed end to the duct, preventing moisture and environmental factors from entering. Additionally, duct terminators can include features designed specifically to assist in drainage or ventilation, thereby enhancing the overall functionality of the duct system. By requiring both components, the design ensures that not only is the airflow optimized, but also the duct system is properly protected, ultimately increasing its efficiency and lifespan. This comprehensive approach is crucial when dealing with ducts that lead into manholes, which are often exposed to various environmental challenges.

SAMPLE

3. Under what condition can the voltage on a neutral become very high?

A. During normal operation

B. Line to ground fault

C. Short circuit condition

D. Overload condition

The voltage on a neutral can become very high during a line to ground fault. In such a situation, the fault creates an unintended path for the current, which can lead to significant voltage imbalances in the system. When the ground fault occurs, the current that is supposed to return via the neutral may instead cause a shift in potential, raising the voltage on the neutral conductor. This phenomenon is particularly hazardous because it affects the safety of the electrical system. In a properly functioning circuit, the neutral is kept at ground potential to avoid shock hazards and ensure safe operation. However, during a line to ground fault, the neutral can experience a rise in voltage, which may pose serious safety risks, including shock hazards for individuals or damage to electrical appliances. In contrast, under normal operation, the voltage on the neutral should remain stable and close to ground level. Short circuit conditions and overload conditions do present risks and result in transient conditions, but they do not typically cause the neutral voltage to spike to unsafe levels the way a line to ground fault can.

4. Power cables use stranded conductors at which sizes?

A. Smaller than 2 AWG

B. 2 AWG and above

C. Only above 4 AWG

D. 1 AWG to 3 AWG

Stranded conductors are commonly used in power cables for sizes of 2 AWG and above primarily due to their flexibility and ease of handling. Larger conductors tend to be stiffer and more difficult to work with if they are solid. Stranded conductors, which consist of multiple small wires twisted together, provide better flexibility, making them suitable for applications where cables need to bend or move. In addition to flexibility, stranded conductors also have better performance in terms of electrical conductivity when compared to solid conductors of the same size, especially under dynamic conditions where movement occurs. For power applications requiring conductors that can handle high currents while maintaining maneuverability, sizes of 2 AWG and above are typically manufactured as stranded. Given these considerations, the choice indicating that stranded conductors are used at sizes 2 AWG and above aligns well with industry practices. Smaller sizes, conversely, often utilize solid conductors as the decreased stiffness and increased flexibility of stranded wires might not be necessary or beneficial.

SAMPLE

5. What is one of the five factors dictating cable insulation type?

A. Cost of materials

B. Length of cable

C. Type of Installation

D. Color of insulation

One of the five factors dictating cable insulation type is the type of installation. This factor is crucial because the environment in which the cable will be used can heavily influence the required insulation properties. Different installations, such as residential, commercial, industrial, or outdoor settings, expose the cable to various conditions including temperature fluctuations, moisture levels, and physical abrasion. For instance, cables installed outdoors may need insulation that is resistant to UV radiation and temperature extremes, while those used in industrial settings might require extra resistance to chemicals or physical wear. Therefore, understanding the type of installation helps determine the most suitable insulation that will ensure safety, functionality, and durability of the cable in its specific application. Other factors like the cost of materials, length of the cable, and color of insulation do play roles in the selection of cables, but they do not directly influence the insulation type necessary for specific installation conditions.

6. What characterizes the IT grounding method?

A. Direct connection to ground

B. No connection to ground in the distribution system

C. Grounding through multiple points

D. Generally used in residential areas

The IT grounding method is characterized by having no direct connection to ground in the distribution system. In this setup, the supply system is isolated from the ground, meaning that there is no intentional connection made to earth ground. This method is often used in certain industrial settings because it can help enhance operational safety and minimize the risks associated with ground faults. By not having a direct grounding point, the system can continue to operate safely even if one phase develops a ground fault, as long as proper protective measures are followed. This isolation allows for the identification of faults without disruption to the entire electrical system, making it advantageous in scenarios where continuous operation is critical.

7. In a delta circuit, where should trucks be grounded?

A. At the neutral point

B. On a driven ground rod

C. At the transformer

D. At the truck battery

In a delta circuit, grounding trucks on a driven ground rod is essential for ensuring safety and equipment protection. Grounding at this point helps to dissipate any fault currents safely into the earth, minimizing the risk of electric shock to individuals working near the equipment. This practice also helps in stabilizing the voltage levels within the system, reducing the likelihood of damage to electrical components. Grounding at a driven rod creates a direct connection to the earth, providing an effective path for fault currents. It enhances the overall safety and reliability of the electrical system by preventing build-up of static charges and reducing electromagnetic interference, which is vital in maintaining the integrity of sensitive equipment. While grounding at the neutral point or at the transformer might be assumed to be appropriate in certain configurations, these methods may not provide the same level of safety and stability as using a driven ground rod in your specific application concerning trucks in a delta circuit. Grounding at the truck battery could also be less effective because it does not create a direct connection to the ground, potentially leaving the system vulnerable to faults.

SAMPLE

8. A worker should not travel more than how far to reach egress from an excavation?

A. 20 feet

B. 25 feet

C. 30 feet

D. 35 feet

The maximum distance a worker should travel to reach an egress from an excavation is 25 feet. This guideline is established to ensure safety and quick access in case of emergencies. Short distances help minimize the risk of injury, exhaustion, or difficulty in escaping an unsafe situation, particularly in environments where excavations may result in sudden hazards such as collapses or exposure to adverse conditions. This standard emphasizes the importance of planning excavation sites with accessibility in mind, allowing workers to maintain their safety while performing their tasks. Egress routes should be clearly marked, easily accessible, and kept clear of obstructions to facilitate a swift exit if necessary. The focus on a specific distance reflects a balance between safety and practicality, ensuring that workers can escape quickly without compromising their operational efficiency.

9. How thick is the concrete envelope that typically surrounds an encased duct?

A. 2 inches

B. 3 inches

C. 4 inches

D. 5 inches

The typical thickness of the concrete envelope that surrounds an encased duct is generally standardized at 3 inches. This thickness provides adequate protection and insulation for the ductwork, ensuring both structural integrity and efficiency in thermal regulation. Concrete serves as a durable barrier, preventing damage from external forces while also minimizing heat loss or gain, which can be crucial in various applications. Choosing this thickness also balances considerations such as material cost, weight, and the necessary physical space in construction while fulfilling safety and performance requirements in most building codes and engineering practices.

10. How far from the surface should red tape be placed to warn anyone digging of energized cables?

A. 2 feet

B. 1 foot

C. 3 feet

D. 4 feet

Red tape should be placed 1 foot from the surface to alert individuals that there are energized cables beneath. This practice is important for safety during digging or excavation work, as it serves as a visual warning to prevent accidental contact with underground utilities. The 1-foot placement ensures that there is an adequate buffer, allowing workers to be aware of potential hazards just before they start digging deeper, helping to avoid any accidents. Other placements, such as 2, 3, or 4 feet, may not provide the same level of alertness at a crucial point when someone is preparing to excavate, potentially leading to unsafe situations if the warning is too far away from the digging area.

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://neat16.examzify.com

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

SAMPLE