

NETA ETT Certified Assistant Level 2 Certification Practice Exam (Sample)

Study Guide



Everything you need from our exam experts!

This is a sample study guide. To access the full version with hundreds of 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. Don't worry about getting everything right, 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, and take breaks to retain information better.

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.

7. Use Other Tools

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!

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Questions

- 1. How does a Shunt Trip function?**
 - A. It closes the circuit breaker when energized**
 - B. It opens the circuit breaker when energized**
 - C. It provides a manual option to close the circuit breaker**
 - D. It prevents the circuit breaker from closing**
- 2. When are cells connected in parallel typically used?**
 - A. To increase voltage output**
 - B. To enhance difficulty in circuit connections**
 - C. To provide a strong current when external resistance is low**
 - D. To reduce the capacity of the battery system**
- 3. What does the FOURTH letter designator "F" signify in transformer cooling classes?**
 - A. Forced convection**
 - B. Natural air cooling**
 - C. Water cooling**
 - D. External heat exchange**
- 4. What best describes the SECOND letter designator for transformer cooling classes?**
 - A. Natural convection through cooling equipment**
 - B. Forced circulation through cooling equipment, directed flow in windings**
 - C. Passive circulation without any cooling equipment**
 - D. Direct contact with coolant fluids**
- 5. What does the operating mechanism of a puffer tube do?**
 - A. Compresses air for insulation**
 - B. Blows a puff of air to help quench the arc**
 - C. Creates a vacuum to prevent overheating**
 - D. Generates electricity to power the circuit**

- 6. What is the primary use for IEC 61850 in substations?**
- A. Communications between intelligent electronic devices**
 - B. Measurement of electrical load**
 - C. Testing of circuit breakers**
 - D. Implementation of safety standards**
- 7. What is the maximum allowed deviation between resistance measurements on bolted connections?**
- A. 10% of the highest value**
 - B. 50% of the lowest value**
 - C. 100% of the middle value**
 - D. No deviation is permitted**
- 8. What is the function of a bell alarm lockout?**
- A. To signal an electrical fault**
 - B. To allow immediate closing of the breaker**
 - C. To prevent closure of the breaker after a protection trip**
 - D. To reset the breaker remotely**
- 9. Which configuration involves one or more buses added to a single bus substation?**
- A. Single Bus System**
 - B. Main Bus and Transfer Bus**
 - C. Double Bus System**
 - D. Multiple Bus Configuration**
- 10. Which of the following best describes the Shunt Close mechanism?**
- A. It disconnects the circuit breaker when energized**
 - B. It ensures a manual reset of the circuit breaker**
 - C. It closes the circuit breaker when energized if ready**
 - D. It provides a safety feature for overload protection**

Answers

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

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Explanations

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1. How does a Shunt Trip function?

- A. It closes the circuit breaker when energized
- B. It opens the circuit breaker when energized**
- C. It provides a manual option to close the circuit breaker
- D. It prevents the circuit breaker from closing

A Shunt Trip is a device that is designed to open a circuit breaker when it is energized. Its primary function is to provide an automatic method for breaking the power supply under certain conditions, such as an emergency situation or a fault condition. When the shunt trip mechanism receives an electrical signal, it sends a command to the circuit breaker to open, thereby disconnecting the power to the circuit that the breaker protects. This feature can be linked to fire alarm systems or other safety mechanisms that require immediate power interruption. Understanding the operation of a shunt trip mechanism is vital in ensuring safety in electrical systems, as it allows for rapid response to dangerous situations, preventing potential damage or hazards. This functionality is distinct from other options, as those involve either closing the circuit breaker or providing manual control, which do not align with the purpose of a shunt trip.

2. When are cells connected in parallel typically used?

- A. To increase voltage output
- B. To enhance difficulty in circuit connections
- C. To provide a strong current when external resistance is low**
- D. To reduce the capacity of the battery system

Cells connected in parallel are typically used to provide a strong current when external resistance is low. When batteries or cells are arranged in parallel, their voltages remain the same as a single cell, but the current capacity increases. This is particularly advantageous in applications where the demand for current is high, such as in power tools or electric vehicles. The combined output allows the system to deliver more current to a load without overheating or damaging the cells, which is crucial when the resistance in the external circuit is low. This setup effectively ensures that multiple cells share the load, reducing the risk of individual cells being overdrawn. In contrast, connecting cells in series would increase the voltage, not the current capacity, which wouldn't be ideal in situations where a strong current is necessary. Thus, the parallel configuration is specifically designed to meet high current demands efficiently.

3. What does the FOURTH letter designator "F" signify in transformer cooling classes?

- A. Forced convection**
- B. Natural air cooling**
- C. Water cooling**
- D. External heat exchange**

The fourth letter designator "F" in transformer cooling classes signifies Forced convection. In this context, forced convection refers to a cooling method where external means, such as fans or pumps, are employed to circulate a cooling fluid (usually air or oil) over the transformer surfaces. This enhances heat dissipation and helps maintain optimal operating temperatures, thus increasing the efficiency and reliability of the transformer. In transformer designations, the different letters indicate various cooling methods, and "F" specifically highlights the active role of mechanical systems in the cooling process. This is important in applications where transformers must operate under significant load conditions, leading to higher heat generation that wouldn't be effectively managed by natural cooling methods alone. Other cooling methods, such as natural air cooling or water cooling, have their specific designators and do not utilize mechanical means for fluid movement in the same way forced convection does, which can lead to misunderstanding of their characteristics and operational capacities. Understanding the implications of these designators is crucial for selecting the appropriate transformer for a given application and ensuring it operates efficiently within its thermal limits.

4. What best describes the SECOND letter designator for transformer cooling classes?

- A. Natural convection through cooling equipment**
- B. Forced circulation through cooling equipment, directed flow in windings**
- C. Passive circulation without any cooling equipment**
- D. Direct contact with coolant fluids**

The second letter designator for transformer cooling classes is important for understanding the mechanisms of cooling utilized in transformers. The correct answer indicates 'forced circulation through cooling equipment, directed flow in windings.' In transformer cooling classes, various letters denote how a transformer is cooled and the methods employed to enhance its performance and efficiency. The designation associated with 'forced circulation' indicates that external means, typically fans or pumps, are used to increase airflow or coolant circulation. This ensures more effective heat dissipation, thereby maintaining optimal operating temperatures within the transformer and enhancing reliability. This method contrasts with other forms of cooling found in other classes. For instance, natural convection involves heat being dissipated through the natural rise of warm air without assistance from fans or pumps. Furthermore, passive circulation implies no cooling enhancements are made—only natural dissipative processes are at work. Direct contact with coolant fluids is representative of specific cooling classes but does not fully capture the concept of forced circulation through dedicated equipment, which is focused specifically on enhanced thermal management. Understanding these distinctions helps in recognizing the significance of each cooling method in transformer operation and efficiency.

5. What does the operating mechanism of a puffer tube do?

- A. Compresses air for insulation**
- B. Blows a puff of air to help quench the arc**
- C. Creates a vacuum to prevent overheating**
- D. Generates electricity to power the circuit**

The correct choice highlights the function of a puffer tube as it relates to circuit interruption. In electrical equipment such as circuit breakers, the puffer tube operates by blowing a puff of air over the electrical contacts during an arc event. When the circuit breaker opens, an arc forms between the contact points. The puffer tube provides a jet of air that helps to cool and extinguish this arc, effectively quenching it and allowing the circuit to safely interrupt the current. This process is crucial for providing reliable protection against overloads and short circuits, ensuring the safety and longevity of the electrical system. The other options do not accurately describe the function of the puffer tube. While compressing air for insulation and creating a vacuum might relate to other types of equipment, those processes do not apply to the puffer tube's primary purpose of arc suppression. Generating electricity to power the circuit is also outside the scope of what a puffer tube does, as it is not designed to produce energy but rather to manage the electrical interruptions effectively.

6. What is the primary use for IEC 61850 in substations?

- A. Communications between intelligent electronic devices**
- B. Measurement of electrical load**
- C. Testing of circuit breakers**
- D. Implementation of safety standards**

The primary use of IEC 61850 in substations is focused on communications between intelligent electronic devices (IEDs). This standard provides a framework for interoperability and communication among a wide range of devices in a substation environment, facilitating real-time data exchange and automation functions. By utilizing a standardized approach to communication protocols and information modeling, IEC 61850 enhances the efficiency and reliability of power system operations, enabling automated monitoring, control, and protection of electrical grids. This protocol is particularly vital as it supports various functions like protection, control, measurement, monitoring, and configuration of devices in a substation, making the integration of equipment from different manufacturers more manageable. As a result, it allows for greater flexibility in substation design and operation. The importance of effective communication in modern substations cannot be overstated, as it is essential for achieving enhanced stability and improved fault management within the electrical grid.

7. What is the maximum allowed deviation between resistance measurements on bolted connections?

- A. 10% of the highest value**
- B. 50% of the lowest value**
- C. 100% of the middle value**
- D. No deviation is permitted**

In the context of measuring resistance on bolted connections, the standard typically allows for some degree of variability in the measurements due to factors such as connection quality, environmental conditions, and equipment calibration. The correct answer allows for flexibility by permitting a deviation based on the lowest value recorded. This approach recognizes that resistance measurements can vary, and as such, it helps in assessing the reliability of the connections without strictly enforcing perfect uniformity in measurements. Allowing a deviation based on the lowest value provides a practical guideline for evaluating whether a bolted connection is acceptable. It accounts for minor fluctuations that can occur during testing, while still ensuring that the connection is functional and does not have severely degraded resistance levels. In contrast, the other options either set unrealistic expectations for deviation or impose more stringent limits that don't align with common industry practices, making them less applicable in real-world scenarios.

8. What is the function of a bell alarm lockout?

- A. To signal an electrical fault**
- B. To allow immediate closing of the breaker**
- C. To prevent closure of the breaker after a protection trip**
- D. To reset the breaker remotely**

The function of a bell alarm lockout is specifically designed to prevent the closure of a circuit breaker after it has tripped due to a fault condition. This ensures that the breaker cannot be closed again until the underlying issue has been addressed, thereby protecting the electrical system from potential damage or unsafe conditions that may arise from attempting to restore power prematurely. In essence, the lockout serves as a safety mechanism, ensuring that operators cannot inadvertently restore power to a circuit that requires attention and investigation following a trip event. This feature is crucial for maintaining system integrity and ensuring the safety of personnel working on or near the equipment.

9. Which configuration involves one or more buses added to a single bus substation?

- A. Single Bus System**
- B. Main Bus and Transfer Bus**
- C. Double Bus System**
- D. Multiple Bus Configuration**

The configuration that involves one or more buses added to a single bus substation is known as a Main Bus and Transfer Bus system. In this arrangement, the primary bus, or the "main bus," is responsible for carrying the bulk of the load, while the transfer bus serves as an auxiliary that provides support and flexibility. This configuration enhances reliability and allows for maintenance or upgrades to be performed on the main bus without disrupting the flow of electricity. In contrast, a single bus system only consists of one bus, which limits redundancy and can create operational challenges during maintenance. A double bus system involves two buses that operate simultaneously and offer more reliability and flexibility than a single bus but does not involve the distinct roles of a main and transfer bus. Multiple bus configurations may consist of several buses arranged in various manners but are not specifically defined by the role of a main and an auxiliary bus as in the case of the Main Bus and Transfer Bus configuration.

10. Which of the following best describes the Shunt Close mechanism?

- A. It disconnects the circuit breaker when energized**
- B. It ensures a manual reset of the circuit breaker**
- C. It closes the circuit breaker when energized if ready**
- D. It provides a safety feature for overload protection**

The Shunt Close mechanism is designed to close a circuit breaker when it is energized and ready for operation. This mechanism plays a crucial role in the automation of power systems, allowing for remote or automatic operation of circuit breakers under specific conditions. By being able to automatically close when energized, the Shunt Close mechanism enhances efficiency in system operations, making it essential for applications where timely restoration of power is needed after a fault has been cleared. The other options do not accurately describe the function of the Shunt Close mechanism. For instance, disconnecting the circuit breaker when energized or providing a manual reset involves different mechanisms more aligned with trip functions rather than closure. Similarly, while overload protection is critical, it is typically managed by other system features like overcurrent relays rather than the Shunt Close mechanism itself. Therefore, the defining characteristic of this mechanism is its role in closing the circuit breaker automatically when conditions are suitable.

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://netaettcertassistantlvl2.examzify.com>

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