

New York City DOB Master Electrician Practice Exam (Sample)

Study Guide



Everything you need from our exam experts!

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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. 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

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- 1. Where can a Type 1 TVSS installation be connected?**
 - A. On the load side of a service disconnect**
 - B. To the neutral bus bar**
 - C. To the line side of a service disconnect**
 - D. Anywhere in the circuit**

- 2. What is the minimum distance receptacles must be set back from the inside wall around a pool?**
 - A. 3 feet**
 - B. 4 feet**
 - C. 5 feet**
 - D. 6 feet**

- 3. In wiring installations, what does RMS stand for?**
 - A. Root Mean Squared**
 - B. Regular Mean Standard**
 - C. Relative Maximum Supply**
 - D. Robot Management System**

- 4. Which of the following is not part of the classification of an incandescent lamp?**
 - A. The wattage of the bulb**
 - B. The color temperature**
 - C. The size of the bulb**
 - D. The type of filament**

- 5. Which appliance is permitted to have a 24-inch cord with an attachment ground plug?**
 - A. Refrigerator**
 - B. Combination range hood/microwave oven**
 - C. Washing machine**
 - D. Dishwasher**

- 6. What is the minimum access opening size for a manhole?**
- A. 20 inches**
 - B. 24 inches**
 - C. 26 inches**
 - D. 30 inches**
- 7. What must be marked on equipment installed in hazardous locations?**
- A. Voltage rating**
 - B. Class, group, temperature class**
 - C. Manufacturer details**
 - D. Ingress protection rating**
- 8. What is the method for ensuring conductors are not damaged during bending?**
- A. Keep bends sharp**
 - B. Use a larger cable size**
 - C. Ensure minimum bending radius**
 - D. Use heat to assist bending**
- 9. What is the maximum distance a 15A or 20A 125V receptacle outlet should be located from heating, air conditioning, and refrigeration equipment?**
- A. 10 feet**
 - B. 25 feet**
 - C. 50 feet**
 - D. 75 feet**
- 10. What standard helps to determine the workspace required around electrical equipment?**
- A. NEC**
 - B. IEEE**
 - C. OSHA**
 - D. UL**

Answers

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

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Explanations

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1. Where can a Type 1 TVSS installation be connected?

- A. On the load side of a service disconnect**
- B. To the neutral bus bar**
- C. To the line side of a service disconnect**
- D. Anywhere in the circuit**

A Type 1 Transient Voltage Surge Suppressor (TVSS) is designed to be installed on the line side of a service disconnect. The purpose of this placement is to provide surge protection at the point where the electrical service enters a building or facility. By connecting the Type 1 TVSS on the line side, it can effectively protect all downstream equipment from voltage spikes, which are often caused by external electrical disturbances, such as lightning strikes or utility switching actions. This installation method ensures that the TVSS can act on surges before they reach sensitive electrical equipment, thus preventing potential damage. It is crucial for maintaining the integrity of electrical systems and safeguarding operational continuity. In contrast, installing on the load side of the service disconnect or to the neutral bus bar would not provide the same level of protection for all circuits fed from the service disconnect, as it would only protect equipment downstream of the installation point. Additionally, connecting a TVSS anywhere in the circuit may lead to inadequate protection and does not conform to the recommended practices outlined in the National Electrical Code (NEC) or other relevant standards.

2. What is the minimum distance receptacles must be set back from the inside wall around a pool?

- A. 3 feet**
- B. 4 feet**
- C. 5 feet**
- D. 6 feet**

The minimum distance that receptacles must be set back from the inside wall around a pool is 6 feet. This requirement is in place to ensure safety and minimize the risk of electrical shock, as water can conduct electricity and pose a serious hazard to individuals near the pool area. By maintaining this distance, the electrical installations are less likely to be exposed to splashes and give adequate space to reduce the likelihood of someone accidentally coming into contact with a live electrical source while in close proximity to water. This distance is consistent with the National Electrical Code (NEC) and local building regulations to promote safe practices regarding electrical installations near swimming pools and similar environments. Adhering to this requirement is crucial for both compliance with electrical codes and ensuring the safety of those using the pool area.

3. In wiring installations, what does RMS stand for?

- A. Root Mean Squared**
- B. Regular Mean Standard**
- C. Relative Maximum Supply**
- D. Robot Management System**

RMS stands for Root Mean Squared, which is a crucial concept in electrical engineering and wiring installations. It represents a method of calculating the effective value of an alternating current (AC) waveform. The RMS value is particularly important because it allows for the comparison of AC and direct current (DC) values in terms of their ability to perform work or produce heat in a resistive load. The calculation determines the equivalent continuous value of an AC current that would deliver the same amount of power to a load as a comparable DC current. Essentially, it calculates the square root of the average of the squares of instantaneous values of a waveform over one complete cycle. Understanding RMS is vital for electricians when sizing conductors, determining voltage drop, and ensuring equipment operates within safe and efficient limits. It is a foundational concept for dealing with AC circuits, and having a solid grasp of RMS values helps in performing accurate power calculations, ensuring safety and compliance with electrical codes.

4. Which of the following is not part of the classification of an incandescent lamp?

- A. The wattage of the bulb**
- B. The color temperature**
- C. The size of the bulb**
- D. The type of filament**

The classification of an incandescent lamp typically involves several key characteristics, such as wattage, color temperature, and type of filament, which directly impact its performance and application. Wattage indicates how much energy the bulb consumes and relates to its brightness. Color temperature describes the appearance of the light emitted, whether it is warm or cool in tone, which is essential for aesthetic and functional lighting considerations. The type of filament plays a crucial role in luminescence and efficiency; for example, a tungsten filament is commonly used in incandescent lamps to provide a warm light. While size might influence the fitting or the physical space where the lamp could be used, it does not directly pertain to the classification that affects performance or behavior of the lamp itself in terms of light output or efficiency. Therefore, size is not typically included in the critical classifications that define the operational characteristics of an incandescent lamp, making it the correct answer for this question.

5. Which appliance is permitted to have a 24-inch cord with an attachment ground plug?

A. Refrigerator

B. Combination range hood/microwave oven

C. Washing machine

D. Dishwasher

The combination range hood/microwave oven is the appliance permitted to have a 24-inch cord with an attachment ground plug. This is due to specific wiring and safety codes that apply to appliances depending on their intended use and construction. A combination range hood/microwave oven is often designed for countertop use, which allows for more flexibility in installation, including the use of shorter power cords. The attachment ground plug ensures that the appliance is properly grounded, which is a crucial safety requirement to prevent electrical shock or fire hazards. In contrast, other appliances like refrigerators, washing machines, and dishwashers have different safety and operational considerations that typically necessitate longer cord lengths or hardwiring directly to electrical circuits, and they often have additional requirements for grounding and circuit protection. These appliances generally have more stringent electrical standards due to their power consumption and operational functions in a residential setting.

6. What is the minimum access opening size for a manhole?

A. 20 inches

B. 24 inches

C. 26 inches

D. 30 inches

The minimum access opening size for a manhole is established to ensure sufficient access for personnel and equipment to perform maintenance, inspections, and repairs safely and efficiently. A 26-inch opening meets regulatory requirements and industry standards, providing enough space for workers to enter and exit the manhole while accommodating the tools and equipment they may need to use inside. This size is particularly crucial in the context of urban environments, where manholes often house critical infrastructure such as electrical systems and telecommunications. Ensuring that the opening is adequate helps in minimizing safety risks, such as entrapment or difficulties in managing equipment within confined spaces. The choice of 26 inches aligns with the codes and safety regulations set by various governing bodies, emphasizing the importance of accessibility in electrical infrastructure. Other sizes, while they may be physically adequate in some contexts, do not align with the established minimum access requirements necessary for compliant and safe operations in New York City as per the Department of Buildings guidelines.

7. What must be marked on equipment installed in hazardous locations?

- A. Voltage rating**
- B. Class, group, temperature class**
- C. Manufacturer details**
- D. Ingress protection rating**

In hazardous locations, it is essential that equipment is marked with its class, group, and temperature class to ensure safety and compliance with relevant codes and standards. This information helps to identify the types of hazardous materials that the equipment is designed to be used with, as well as its suitability for the specific conditions present in the environment. The class indicates the general category of the hazard (such as Class I for flammable gases), while the group specifies the specific type of gas or vapor (for instance, Group A for acetylene). The temperature class provides the maximum surface temperature that the equipment can reach, which is crucial to prevent ignition of flammable substances around it. Proper marking of this information is vital for electrical professionals to select the right equipment for the right application, thereby ensuring the safety of both personnel and property in potentially explosive environments. While other markings such as voltage rating, manufacturer details, and ingress protection rating are important, they do not specifically address the unique requirements for installations in hazardous locations where explosion protection is critical.

8. What is the method for ensuring conductors are not damaged during bending?

- A. Keep bends sharp**
- B. Use a larger cable size**
- C. Ensure minimum bending radius**
- D. Use heat to assist bending**

Ensuring that conductors are not damaged during bending involves following the manufacturer's guidelines and industry standards regarding the minimum bending radius. Each type of conductor has a specific minimum bending radius that should be adhered to in order to prevent stress and potential damage to the conductor itself. If the bending radius is too small, it can cause insulation damage, conductor breakage, or diminished performance, leading to failures in the electrical system. Adhering to the minimum bending radius allows the conductors to maintain their integrity and ensures that they can operate safely and efficiently. This practice is essential for preserving the lifespan of the conductors and preventing electrical faults that could lead to safety hazards.

9. What is the maximum distance a 15A or 20A 125V receptacle outlet should be located from heating, air conditioning, and refrigeration equipment?

- A. 10 feet**
- B. 25 feet**
- C. 50 feet**
- D. 75 feet**

The maximum distance a 15A or 20A 125V receptacle outlet should be located from heating, air conditioning, and refrigeration equipment is 25 feet. This guideline is in place to ensure that portable power tools or equipment can be used safely and effectively in proximity to these systems. Keeping the receptacle outlet within 25 feet minimizes the risk of overloading circuits or tripping breakers due to excessive amperage draw if equipment is placed too far from the power source. Additionally, this distance helps mitigate the risk of overheating or electrical hazards that can arise from long extension cords or improper wiring practices. Thus, adhering to this regulation not only fosters efficiency in operation but also plays a crucial role in maintaining safety standards around electrically powered equipment used in conjunction with HVAC systems.

10. What standard helps to determine the workspace required around electrical equipment?

- A. NEC**
- B. IEEE**
- C. OSHA**
- D. UL**

The National Electrical Code (NEC) is the correct choice when it comes to determining the workspace required around electrical equipment. This standard provides regulations that ensure safe installation practices and specifies the necessary clearances required for various electrical installations. The NEC includes detailed guidelines on the amount of space needed for conducting maintenance and repair work safely, which helps prevent accidents and allows for adequate access. Understanding the workspace around electrical equipment is vital for both functionality and safety. The NEC's regulations pertain to issues such as the height, width, and depth that must be maintained around electrical panels and other equipment, ensuring that electricians can perform their work without risking injury. Other standards mentioned, such as IEEE, OSHA, and UL, focus on different aspects of electrical safety and equipment testing but do not specifically address the workspace requirements needed for electrical installations in the same comprehensive manner as the NEC does. This makes the NEC the key reference for electricians regarding spatial considerations in their work.

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://nycdobmasterelectrician.examzify.com>

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

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