Con Edison Test B – Gas Safety, Electrical Theory, and Job Procedures Practice Test (Sample)

Study Guide

BY EXAMZIFY

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

1. Are you allowed to enter a structure with a D-Fault?

A. No

B. Yes

C. Only with supervisor approval

D. Only if wearing PPE

2. What unit measures power?

A. Volts

B. Amperes

C. Watts

D. Ohms

3. What type of clothing must be worn when working on live electrical conductors?

A. Cotton clothing

B. FR clothing

C. Wool clothing

D. Synthetic clothing

4. What does a dynamometer measure in cable pulling operations?

A. Measures pulling tension

B. Measures temperature

C. Measures voltage

D. Measures torque

5. During cable pulling, what is the purpose of wearing leather gear?

A. To protect hands from cuts

B. To improve grip

C. To protect cable after basket

D. To protect from electrical shock

6. Which of the following is an acceptable condition for entry into a structure?

A. Oxygen 19.5% to 23.0%, CO less than 35 ppm, H2S less than 5 ppm

B. Oxygen 15% to 25%, CO less than 100 ppm, H2S less than 10 ppm

C. Oxygen 19% to 25%, CO less than 20 ppm, H2S less than 3 ppm

D. Oxygen 18% to 24%, CO less than 40 ppm, H2S less than 7 ppm

7. Which knot is used to sling up a wire?

A. Bowline

B. Rolling hitch

C. Figure eight

D. Clove hitch with half hitch

8. What are the three types of distribution systems?

A. Radial

B. Network

C. Radial, Network, and Loop

D. Loop

9. What must you do if you see oil in a hole?

A. Ignore it

B. Call EHS, sample, and contain

C. Fill the hole and seal

D. Report to supervisor next shift

10. Which control activates the winch on a cable truck?

A. Gas pedal

B. Hand crank

C. Electrical switch

D. PTO

Answers

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

Explanations

1. Are you allowed to enter a structure with a D-Fault?

A. No

B. Yes

C. Only with supervisor approval

D. Only if wearing PPE

Entering a structure with a D-Fault is not allowed because a D-Fault signals a hazardous condition that could still energize equipment, cause an arc flash, or create other dangerous situations. PPE by itself does not remove the underlying risk, and supervisor approval cannot override the safety rule that the area must be safe before entry. The proper response is to treat the area as unsafe, secure it, and follow the established process to address the fault—typically isolating energy sources, verifying zero energy, and obtaining the appropriate authorization or permit to work—before anyone enters.

2. What unit measures power?

A. Volts

B. Amperes

C. Watts

D. Ohms

Power is the rate at which electrical energy is transferred or consumed. The unit for this rate is the watt, defined as one joule per second. In circuits, power equals voltage times current (P = V × I). That means if you have a device connected to a voltage supply and it draws current, the product of those two quantities tells you how much energy per second the device uses. For example, a device drawing 2 amperes from a 120-volt supply uses about 240 watts of power. Devices are labeled by their wattage to indicate how much energy they consume each second. For larger amounts, we use kilowatts (1 kW = 1000 W). The other fundamental electrical quantities—voltage, current, and resistance—each have their own units: volts for potential difference, amperes for current, and ohms for resistance. Understanding that watts tie voltage and current together helps you see how power changes with either quantity.

3. What type of clothing must be worn when working on live electrical conductors?

A. Cotton clothing

B. FR clothing

C. Wool clothing

D. Synthetic clothing

When working on live electrical conductors, the priority is protection from arc flash, which can cause severe burns. Clothing that is flame-resistant (FR) is designed to resist ignition and to self-extinguish, helping to limit heat transfer to the skin. This type of apparel is specifically rated for arc flash exposure and is chosen to reduce burn injuries, making it the best option for live-work safety. Cotton isn't flame resistant, so it can ignite and burn quickly if an arc flash occurs. Wool may resist burning more than cotton, but it isn't standardized FR gear and doesn't provide reliable arc-flash protection. Synthetic fabrics (like polyester or nylon) can melt and fuse to the skin, worsening burns. FR clothing, often made from aramid fibers or FR-treated fabrics, is designed to withstand heat and reduce the severity of injuries in arc flash scenarios.

4. What does a dynamometer measure in cable pulling operations?

A. Measures pulling tension

B. Measures temperature

C. Measures voltage

D. Measures torque

In cable pulling, you need to know exactly how much force is being applied along the line to avoid over-tensioning and damaging equipment. A dynamometer is a force-sensing device that measures pulling tension directly along the cable. It's placed in-line with the pulling setup and provides a real-time readout of the axial force, usually in pounds-force or newtons. This feedback lets the crew keep tension within safe limits and adjust pace or technique as needed to prevent cable breakage, splices from slipping, or equipment strain. It isn't used to measure temperature, electrical voltage, or rotational torque in this context; those measurements require different instruments or sensors.

5. During cable pulling, what is the purpose of wearing leather gear?

A. To protect hands from cuts

B. To improve grip

C. To protect cable after basket

D. To protect from electrical shock

The main idea is protecting the cable from damage during handling as it's pulled through the system. Leather gear acts as a tough, abrasion-resistant barrier that guards the cable jacket from nicks, cuts, and wear as it moves over edges, through baskets, and along rough surfaces. Keeping the insulation intact is crucial because damaged insulation can lead to faults or future failures. While leather gear can also help with grip and offers some hand protection, the primary reason to wear it in this situation is to shield the cable itself. Leather does not provide reliable electrical shock protection, so insulated PPE would be needed for that purpose.

6. Which of the following is an acceptable condition for entry into a structure?

A. Oxygen 19.5% to 23.0%, CO less than 35 ppm, H2S less than 5 ppm

B. Oxygen 15% to 25%, CO less than 100 ppm, H2S less than 10 ppm

C. Oxygen 19% to 25%, CO less than 20 ppm, H2S less than 3 ppm

D. Oxygen 18% to 24%, CO less than 40 ppm, H2S less than 7 ppm

Starting conditions for entering a structure must ensure a breathable, non-toxic atmosphere. The oxygen level should be close to normal—not too low to cause hypoxia and not too high to create an elevated fire risk. The safe entry standard here uses oxygen from 19.5% to 23.0%, carbon monoxide kept under 35 ppm, and hydrogen sulfide under 5 ppm. This combination keeps breathing air within a normal range while keeping toxic gases well below dangerous levels, which is essential for safe entry. If any of these limits are exceeded, entry should not proceed without additional controls, such as ventilation or using protective equipment. Other options fail because they either allow too low or too high oxygen (which can impair workers or increase fire/explosion risk) or permit higher levels of CO or H2S than acceptable, reducing safety for entry.

7. Which knot is used to sling up a wire?

A. Bowline

B. Rolling hitch

C. Figure eight

D. Clove hitch with half hitch

When you sling a line to a wire, you need a knot that grips a cylindrical surface and resists slipping as tension increases. The rolling hitch is built for that exact situation: it wraps around the wire and, as you pull on the standing part, the rope tightens against the wire, creating friction that holds the sling in place. This makes it reliable for attaching a rope to a wire and adjusting the position or tightness of the sling without the rope sliding off. Other knots don't fit as well because they're not designed to grip a smooth, round object like a wire. A bowline creates a fixed loop at the end of the rope but doesn't grip the wire itself, so it can slip off under load. A figure eight forms a stopper or loop but doesn't secure around a wire to prevent sliding. A clove hitch with a half hitch can secure to a post or pole, but on a wire it tends to loosen or slip under tension, making it less secure for sling operations.

8. What are the three types of distribution systems?

A. Radial

B. Network

C. Radial, Network, and Loop

D. Loop

Power distribution configurations come in a few standard forms, and each has its own impact on reliability and how faults are managed. The three common configurations are radial, loop, and network. In a radial system, there's a single path from the substation to each customer, so a fault cuts power to everything beyond that point until the fault is cleared. It's simple and cost-effective but has limited redundancy. In a loop system, feeders form a closed ring, giving multiple directions for power to reach a load; this provides an alternate path if one section faults, helping restore service quickly through switching. In a network system, many feeders are interconnected in a grid-like pattern, offering multiple parallel paths between sources and loads and enabling the highest level of reliability and load balancing. Because this set includes all three configurations, it's the most complete answer.

9. What must you do if you see oil in a hole?

A. Ignore it

B. Call EHS, sample, and contain

C. Fill the hole and seal

D. Report to supervisor next shift

When you spot oil in a hole, the priority is to control a potential hazardous release and protect people and the environment. Oil can ignite, foul soil and water, and expose workers to toxic vapors, so you want to slow or stop any spread, keep others away, and bring in trained responders. Calling Environmental Health and Safety lets specialists identify the substance, assess the specific hazards, and determine the proper cleanup plan. They can collect samples to understand contamination levels and requirements, and they can implement containment measures to prevent oil from spreading to surrounding soil, water, or equipment. This combination—getting expert input, sampling for proper handling, and containing the spill—is the quickest, safest way to manage the situation. Choosing to ignore it misses the risk entirely. Filling the hole might hide the problem but doesn't address contamination or regulatory reporting. Waiting to report until the next shift delays response and leaves the area unprotected.

10. Which control activates the winch on a cable truck?

A. Gas pedal

B. Hand crank

C. Electrical switch

D. PTO

The control is the power take-off (PTO). The PTO is what transfers engine power to auxiliary equipment like a winch, usually driving a hydraulic pump or winch motor. When you engage the PTO, power is supplied to the winch, allowing you to spool rope in or out with the winch controls. The gas pedal only changes engine speed and does not activate the winch; a hand crank would be manual and is not how modern cable trucks run a powered winch; an electrical switch may control the circuit, but without the PTO supplying power, the winch won't operate.

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://conedisonb.examzify.com

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