

TSSA ELEVATING DEVICES MECHANIC – CLASS F (EDM-F) LICENSE PRACTICE EXAM (SAMPLE) STUDY GUIDE



Prepare with structure. Pass with confidence



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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. If protective pads are used in passenger elevator cars, what must they be?**
 - A. Flammable
 - B. Painted
 - C. Non-combustible
 - D. Soft and cushy

- 2. How many turns of hoist rope must remain on the driving drum of a special purpose elevator at its maximum upward limit of travel?**
 - A. 1 turn
 - B. 2 turns
 - C. 3 turns
 - D. 4 turns

- 3. What does the ASME A17.1/CSA B44 code provide for new technologies?**
 - A. A method for promoting innovations
 - B. A structured method for establishing safety
 - C. A set of best practices
 - D. A timeline for implementation

- 4. The minimum lighting level specified by the B44 Code enhances what aspect of elevator systems?**
 - A. Visibility
 - B. Safety
 - C. Efficiency
 - D. Performance

- 5. Which U.S. body participated in the harmonization process of the CSA B44 Code?**
 - A. A.S.M.E. A17 Committee
 - B. National Elevator Industry, Inc.
 - C. Underwriters Laboratories (UL)
 - D. National Fire Protection Association (NFPA)

- 6. Which section of the regulatory code covers loading and capacity requirements for rack and pinion elevators?**
- A. 2.12
 - B. 2.14
 - C. 2.16
 - D. 2.18
- 7. Where would a brace rod typically be located?**
- A. In the elevator pit
 - B. On the car frame
 - C. In the machine room
 - D. Along the hoistway
- 8. What feature allowed early hydraulic elevators to be used for high-rise applications?**
- A. A system of ropes and multiple sheaves
 - B. An advanced counterweight system
 - C. Use of electric motors
 - D. Automatic leveling technology
- 9. Which of the following alterations would not be identified as an alteration?**
- A. Changing the elevator's safety features
 - B. Adding additional lighting
 - C. Installing a different flooring material
 - D. Improving cab insulation
- 10. According to B44 code, what is the minimum number of hoisting ropes required for a drum machine elevator?**
- A. 1
 - B. 2
 - C. 3
 - D. 4

Answers

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

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Explanations

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1. If protective pads are used in passenger elevator cars, what must they be?

- A. Flammable
- B. Painted
- C. Non-combustible**
- D. Soft and cushy

The requirement for protective pads used in passenger elevator cars to be non-combustible is critical for safety reasons. Non-combustible materials do not ignite and burn easily, which is essential in an elevator setting where fire safety is a paramount concern. These materials help prevent the spread of fire within the elevator car and protect passengers from potential hazards in case of a fire emergency. In contrast, flammable materials pose a significant risk as they can easily catch fire and contribute to the spread of flames. Painted surfaces might not meet the non-combustibility requirement, as some paints can contain flammable components. While soft and cushy pads offer comfort, they would still need to adhere to fire safety standards by being made from non-combustible materials to be compliant and safe. Hence, non-combustible protective pads are the appropriate choice for ensuring passenger safety in elevator installations.

2. How many turns of hoist rope must remain on the driving drum of a special purpose elevator at its maximum upward limit of travel?

- A. 1 turn**
- B. 2 turns
- C. 3 turns
- D. 4 turns

For special purpose elevators, maintaining a minimum number of turns of hoist rope on the driving drum at the maximum upward travel limit is crucial for safety and operational integrity. The requirement for at least one full turn of hoist rope remaining on the drum ensures that there is still sufficient rope to prevent the possibility of the load becoming detached or the rope slipping off the drum during operation. This single turn acts as a safety buffer. It enables the rope to stay engaged with the drum and avoids any risk associated with the potential for the rope to pay out or unravel. The guidelines for hoist ropes are designed to minimize risks related to equipment failure and to protect both the equipment and the individuals using the elevator. In contrast, options suggesting a higher number of turns could overcomplicate the operation and may not be necessary for all types of elevators, especially special purpose elevators that are designed with specific operational parameters in mind. Therefore, one turn is the minimum required for safety and functionality.

3. What does the ASME A17.1/CSA B44 code provide for new technologies?

- A. A method for promoting innovations
- B. A structured method for establishing safety**
- C. A set of best practices
- D. A timeline for implementation

The ASME A17.1/CSA B44 code is primarily focused on establishing safety standards for elevating devices, which is crucial given the potential hazards associated with these technologies. By providing a structured framework, this code ensures that new technologies can be assessed and integrated into existing safety protocols. This structured method is designed to maintain a consistent level of safety for passengers and workers, regardless of the innovations introduced. While the code may indirectly encourage innovations and advancements in technology, its core purpose is to outline the safety requirements necessary to protect users. This emphasis on safety ensures that innovations do not compromise the well-being of the public or the reliability of elevating systems. In contrast, the other choices do not capture the primary purpose of the code. Although it may involve best practices and may offer insights related to timelines for updates, its main function is centered around safety standards rather than just promoting innovations or establishing a timeline.

4. The minimum lighting level specified by the B44 Code enhances what aspect of elevator systems?

- A. Visibility
- B. Safety**
- C. Efficiency
- D. Performance

The minimum lighting level specified by the B44 Code significantly enhances safety within elevator systems. Adequate lighting is critical for ensuring that passengers and service personnel can see the control panels, doors, and surrounding areas clearly. This visibility reduces the likelihood of accidents, such as trips and falls, or misjudging when to enter or exit an elevator. Ensuring safe conditions is essential in emergency situations, where proper lighting can guide individuals to exits and reduce panic. While visibility is an important component of safety, the emphasis here is on how proper lighting levels contribute directly to creating a secure environment for all users of the elevator system.

5. Which U.S. body participated in the harmonization process of the CSA B44 Code?

- A. A.S.M.E. A17 Committee**
- B. National Elevator Industry, Inc.
- C. Underwriters Laboratories (UL)
- D. National Fire Protection Association (NFPA)

The correct choice is the A.S.M.E. A17 Committee, which is significant in the harmonization of the CSA B44 Code because this committee focuses on the safety standards for elevators and escalators in the United States. The CSA B44 Code deals with similar aspects in Canada, and through collaboration with the A.S.M.E. A17 Committee, the aim is to standardize safety measures and practices across borders, thereby enhancing safety and facilitating trade. This harmonization is crucial as it ensures that manufacturers and service providers can operate efficiently in both the U.S. and Canadian markets while adhering to consistent regulations. The other organizations mentioned have roles in the field of safety and standards but do not directly participate in the harmonization process of the CSA B44 Code. The National Elevator Industry, Inc. primarily focuses on advocacy and representation for elevator manufacturers in the U.S. Underwriters Laboratories (UL) develops safety standards and testing protocols, while the National Fire Protection Association (NFPA) deals with fire safety standards, which, while important, do not specifically pertain to the elevator and escalator standards that the A.S.M.E. A17 Committee oversees.

6. Which section of the regulatory code covers loading and capacity requirements for rack and pinion elevators?

- A. 2.12
- B. 2.14
- C. 2.16**
- D. 2.18

The correct answer is based on the specific content found in regulatory codes concerning loading and capacity requirements for rack and pinion elevators. Section 2.16 provides detailed guidelines on the loading capacities that must be adhered to when operating such elevators. This section delineates the necessary calculations, safety factors, and loading assessments that are essential to ensure the safe and efficient use of rack and pinion systems. Understanding the loading and capacity requirements outlined in this section is crucial for elevator mechanics, as it ensures compliance with safety standards and helps prevent accidents related to overloading. Familiarity with these requirements also aids mechanics in performing proper maintenance and inspections to uphold operational integrity and reliability. The other sections do not specifically address the loading and capacity requirements for rack and pinion elevators, which is why they are not applicable when seeking regulations specifically covering this aspect of elevator operation.

7. Where would a brace rod typically be located?

- A. In the elevator pit
- B. On the car frame**
- C. In the machine room
- D. Along the hoistway

A brace rod is generally installed on the car frame of an elevator system. Its primary function is to provide structural support and stability to the elevator car, ensuring it maintains its integrity during operation. When installed on the car frame, the brace rod helps to prevent flexing or movement that could compromise safety or performance. In contrast, while components located in an elevator pit, machine room, or along the hoistway are crucial for various functions, they do not specifically serve the same supportive role as the brace rod does on the car frame. The pit often contains the floor mechanisms and buffers that manage the car's movement, the machine room houses the machinery used to operate the elevator, and the hoistway includes the path that the elevator car travels. Understanding the specific location and function of the brace rod emphasizes the importance of structural integrity directly related to the elevator car's operation.

8. What feature allowed early hydraulic elevators to be used for high-rise applications?

- A. A system of ropes and multiple sheaves**
- B. An advanced counterweight system
- C. Use of electric motors
- D. Automatic leveling technology

The use of a system of ropes and multiple sheaves enabled early hydraulic elevators to effectively handle the challenges associated with high-rise applications. This system allows for the distribution of the load and improves the efficiency of the lifting mechanism. By employing multiple sheaves, the elevator can take advantage of mechanical advantage, which reduces the force that must be applied by the hydraulic system to lift the elevator car and its load. This design element was crucial as hydraulic systems inherently face limitations regarding how much weight they can lift and how high they can effectively operate. The introduction of ropes and sheaves in this context enhanced the performance of hydraulic elevators, allowing them to service taller buildings than was previously possible with direct hydraulic systems. In contrast, while electric motors, counterweight systems, and automatic leveling technology each play vital roles in modern elevator systems, they do not fundamentally relate to the primary feature that gave early hydraulic elevators their heightened usability for high-rise buildings. For instance, electric motors transformed elevator technology overall but were not a unique feature exclusive to hydraulic systems at the time.

9. Which of the following alterations would not be identified as an alteration?

- A. Changing the elevator's safety features
- B. Adding additional lighting**
- C. Installing a different flooring material
- D. Improving cab insulation

Adding additional lighting is not identified as an alteration because it does not fundamentally change the structure, safety features, or functionality of the elevator system. Changes categorized as alterations typically involve modifications that may affect the operation, safety, or compliance with regulations. In contrast, changing the elevator's safety features, installing different flooring materials, or improving cab insulation can have a direct impact on how the elevator operates or meets safety codes. These types of changes could potentially alter the performance or safety standards of the device, thereby making them significant alterations that would be subject to scrutiny under safety regulations. Consequently, adding lighting is more of an enhancement that does not compromise the elevator's core functions or safety systems.

10. According to B44 code, what is the minimum number of hoisting ropes required for a drum machine elevator?

- A. 1
- B. 2**
- C. 3
- D. 4

According to the B44 code, which governs the safety standards for elevators in Canada, a drum machine elevator is required to have a minimum of two hoisting ropes. This requirement is put in place to ensure that there is redundancy in the lifting system, which enhances the safety and reliability of the elevator operation. In case one hoisting rope were to fail, the remaining rope would still provide support and prevent a potentially dangerous situation. Having two hoisting ropes also helps distribute the load more evenly, reducing wear and tear on each individual rope and extending their service life. This requirement is a critical aspect of elevator safety, emphasizing the importance of having a robust and secure method of lifting. The need for redundancy and safety is a fundamental principle in elevator design, reflecting a proactive approach to preventing accidents and ensuring passenger safety.

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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://tssaedmf.examzify.com>

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

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