

ENGINEERING ECONOMICS AND MANAGEMENT, LAWS AND ETHICS PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE**

<https://engreconmgmtlawsethics.examzify.com>



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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. What is the minimum age requirement for personnel working in a repair station?**
 - A. 16 years
 - B. 18 years
 - C. No minimum age
 - D. 21 years
- 2. What is the typical duration of certificates for repair stations located outside the US?**
 - A. 12 months
 - B. 36 months
 - C. Normally 12 months but may be extended up to 24 months
 - D. Normally 24 months but may be extended up to 36 months
- 3. What refers to an imaginary cost representing what will not be received if a particular strategy is rejected?**
 - A. Opportunity
 - B. Ghost cost
 - C. Horizon cost
 - D. Null cost
- 4. What is the primary purpose of a minimum equipment list (MEL) for an aircraft?**
 - A. List of equipment that must be operational at all times
 - B. Minimum equipment that must be installed due to airworthiness directives
 - C. Equipment that can be inoperative and maintain airworthiness
 - D. Optional equipment list for aircraft
- 5. What is the instructor to student ratio for classes performing actual tasks in accordance with PCAR Part 3?**
 - A. 1:45
 - B. 1:35
 - C. 1:25
 - D. 1:40

- 6. Which PCAR part provides the requirements for transporting hazardous materials?**
- A. a. 11
 - B. b. 13
 - C. c. 16
 - D. d. 18
- 7. What management function is defined as guiding the activities of organization members in an appropriate direction?**
- A. Planning
 - B. Controlling
 - C. Leading
 - D. Organizing
- 8. Which inspection program is not permissible for aircraft and type operation?**
- A. Annual inspection
 - B. 24-hours inspection
 - C. Progressive inspection
 - D. Continuous airworthiness program
- 9. Return on investment ratio is the ratio of which two financial elements?**
- A. Net income to owner's equity
 - B. Market price per share to earnings per share
 - C. Cost of goods sold to average cost of inventory at hand
 - D. Net credit sales to average net receivables
- 10. Which regulation outlines the requirements for issuing mechanic certificates?**
- A. 14 CFR 43
 - B. 14 CFR 65
 - C. 14 CFR 91
 - D. AC 43.13-3

Answers

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

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Explanations

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1. What is the minimum age requirement for personnel working in a repair station?

- A. 16 years
- B. 18 years**
- C. No minimum age
- D. 21 years

The minimum age requirement for personnel working in a repair station is 18 years. This requirement is rooted in safety and regulatory compliance, particularly in industries where technical expertise and understanding of complex regulations are crucial. Individuals at this age are generally considered to have reached a level of maturity and legal standing necessary to undertake responsibilities associated with repair operations, which often involve intricate systems and safety-sensitive tasks. Additionally, the age of 18 aligns with various regulations surrounding employment in technically demanding positions, supporting the contention that younger individuals may not yet possess the essential skills or legal capacity to perform certain types of work, particularly where public safety is a priority. This age threshold helps ensure that all personnel have adequate training and understanding of the legal, technical, and safety standards required in repair operations.

2. What is the typical duration of certificates for repair stations located outside the US?

- A. 12 months
- B. 36 months
- C. Normally 12 months but may be extended up to 24 months**
- D. Normally 24 months but may be extended up to 36 months

The typical duration of certificates for repair stations located outside the US is generally established at 12 months, with the possibility of an extension up to 24 months under certain conditions. This structure reflects the regulatory framework set forth by aviation authorities, which aim to ensure safety and compliance while allowing for flexibility in the certification period to accommodate the operational realities faced by international repair stations. The 12-month standard serves as a baseline to conduct regular evaluations and assessments of the repair stations, ensuring they continue to meet quality standards and regulatory requirements. If a repair station demonstrates consistent compliance and quality control processes, it may qualify for the extension, providing an incentive for maintaining high operational standards over an extended period. The other options suggest either a fixed duration of 12 or 24 months without the possibility of extension or longer extensions that do not align with the established guidelines for international repair station certifications. These misunderstandings can lead to confusion regarding the proper certification timeframe and its implications for regulatory compliance and operational efficiency in aviation maintenance.

3. What refers to an imaginary cost representing what will not be received if a particular strategy is rejected?

- A. Opportunity**
- B. Ghost cost
- C. Horizon cost
- D. Null cost

The correct choice is opportunity, which is a term commonly used in economics and decision-making. Opportunity cost refers to the potential benefits or value that are forfeited when one alternative is chosen over another. In other words, it represents the income or gain that you give up by opting for a particular strategy or choice instead of the next best alternative. For instance, if a company decides to invest in a new project, the opportunity cost would be the profits it could have made from other projects that are not pursued as a result. This concept is crucial for understanding trade-offs in limited resource allocation and helps businesses and individuals in making informed decisions. The other terms or options presented may not accurately convey this economic principle. Ghost cost is not typically used in standard economic terminology, rather it may refer to non-tangible costs that are hard to quantify. Horizon cost usually relates to the timeframe of forecasting cash flows or investment returns, which does not align with the concept of opportunity costs. Null cost suggests a complete absence of cost, which contrasts with the principles behind opportunity cost that asserts that every choice has a cost associated with it.

4. What is the primary purpose of a minimum equipment list (MEL) for an aircraft?

- A. List of equipment that must be operational at all times
- B. Minimum equipment that must be installed due to airworthiness directives
- C. Equipment that can be inoperative and maintain airworthiness**
- D. Optional equipment list for aircraft

The primary purpose of a minimum equipment list (MEL) for an aircraft is to specify equipment that can be inoperative while still allowing the aircraft to maintain its airworthiness status. The MEL serves to ensure that no critical systems essential for safe flight are compromised, allowing for continued operation under specific guidelines. It is a critical tool for operators; it provides clear regulations on what can be non-functional without jeopardizing safety or regulatory compliance. This function is particularly important because it balances operational flexibility with safety requirements. For example, an aircraft might have certain non-essential systems fail which can be safely deferred for a limited time. The MEL provides standard operating procedures for how to handle such situations, which is crucial for both flight safety and operational efficiency. In contrast, while a list of equipment that must be operational at all times is relevant to aircraft safety, it does not capture the comprehensive allowance framework provided by the MEL. Similarly, the notion of an optional equipment list does not align with the purpose of the MEL, as it primarily focuses on maintaining safety standards when some equipment is not functioning. Additionally, the requirement for equipment installation per airworthiness directives would relate more to regulatory compliance rather than the immediate operational scope that the MEL covers.

5. What is the instructor to student ratio for classes performing actual tasks in accordance with PCAR Part 3?

- A. 1:45
- B. 1:35
- C. 1:25**
- D. 1:40

The instructor to student ratio for classes performing actual tasks in accordance with PCAR Part 3 is 1:25. This standard ensures that each student receives adequate attention and instruction while engaged in practical learning experiences. A smaller ratio is beneficial for hands-on tasks as it allows for more individualized guidance, supervision, and assistance. In settings where complex and detailed instruction is required, such as engineering or technical training, a closer instructor to student ratio enhances the learning environment, promoting better skill acquisition and safety. The other ratios would not meet the requirements specified in PCAR Part 3, as they would allow too many students per instructor, potentially leading to inadequate oversight of practical tasks.

6. Which PCAR part provides the requirements for transporting hazardous materials?

- A. a. 11
- B. b. 13
- C. c. 16
- D. d. 18**

The correct choice is linked to the fact that PCAR, or the Pipeline and Hazardous Materials Safety Administration, has specific regulations that directly address the requirements for transporting hazardous materials. Part 18 of the PCAR outlines criteria that ensure safety during the transportation of such materials, including packaging, labeling, and communication of hazards. These regulations are critical because they help prevent accidents and ensure that all personnel involved in the transportation of hazardous materials are aware of the risks and how to manage them properly, ultimately protecting both people and the environment. In contrast, the other parts mentioned do not focus on hazardous materials transportation. While they may cover other regulatory aspects or specific industries, they do not provide the same level of detail or requirements regarding hazardous materials, which distinguishes Part 18 as the relevant section for this context. Understanding the specific regulations related to hazardous materials is essential for compliance and safety in engineering and management practices related to transportation.

7. What management function is defined as guiding the activities of organization members in an appropriate direction?

- A. Planning
- B. Controlling
- C. Leading**
- D. Organizing

The management function that is defined as guiding the activities of organization members in an appropriate direction is leading. This function involves motivating and influencing employees to work towards the organization's goals and objectives. Effective leaders establish a clear vision, foster a positive work environment, and provide direction through communication and support. Leading is essential to ensure that team members understand their roles, feel valued, and are encouraged to collaborate and perform at their best. This function also involves addressing any issues that may hinder employee engagement and productivity, as well as recognizing and rewarding contributions to the organization's success. Planning relates to setting objectives and outlining the steps to achieve them, while organizing focuses on arranging resources and tasks to implement the plans. Controlling involves monitoring progress and making adjustments as necessary to ensure that goals are met. These functions support leading but do not encompass the primary role of guiding and motivating team members in their daily activities.

8. Which inspection program is not permissible for aircraft and type operation?

- A. Annual inspection
- B. 24-hours inspection**
- C. Progressive inspection
- D. Continuous airworthiness program

The option referring to a 24-hours inspection is correct because it does not comply with established aviation safety regulations regarding inspection programs for aircraft. Regulatory bodies, like the Federal Aviation Administration (FAA) in the United States, have specific guidelines and requirements that govern how inspections must be conducted. Annual inspections ensure that aircraft are thoroughly examined at least once a year, following a comprehensive checklist that meets safety standards and regulations. Progressive inspections provide a structured way of conducting inspections in phases, allowing continuous oversight without grounding the aircraft for long periods. Continuous airworthiness programs focus on maintaining aircraft safety and reliability through ongoing assessments and maintenance schedules. In contrast, a 24-hours inspection is not a standard or recognized inspection program within aviation regulations. The terminology may imply a quick check, but it lacks the depth and regularity necessary to ensure aircraft safety. Such a program would not adequately meet the rigorous standards set forth by aviation authorities for determining the airworthiness of an aircraft.

9. Return on investment ratio is the ratio of which two financial elements?

- A. Net income to owner's equity**
- B. Market price per share to earnings per share
- C. Cost of goods sold to average cost of inventory at hand
- D. Net credit sales to average net receivables

The return on investment (ROI) ratio is indeed defined as the ratio of net income to owner's equity. This relationship allows stakeholders to understand how effectively a company is using the equity invested by its owners to generate profit. By calculating ROI, businesses can assess the profitability of investments and make informed decisions regarding resource allocation. Net income represents the profit earned after all expenses, taxes, and costs have been accounted for, while owner's equity reflects the residual interest in the assets of the entity after deducting liabilities. Therefore, expressing net income as a proportion of owner's equity gives a clear picture of how well each dollar of equity is yielding profit. A higher ROI indicates more efficient use of equity financing. The other options do not correctly align with the definition of ROI. The second choice relates to the relationship between market price and earnings but does not measure the efficiency of equity use. The third option discusses inventory management and cost but does not pertain to investment returns. Lastly, the fourth option examines the efficiency of credit sales management without connecting back to equity profit-making.

10. Which regulation outlines the requirements for issuing mechanic certificates?

- A. 14 CFR 43
- B. 14 CFR 65**
- C. 14 CFR 91
- D. AC 43.13-3

The regulation that outlines the requirements for issuing mechanic certificates is 14 CFR 65. This part of the Code of Federal Regulations specifically deals with the certification of airmen and the criteria for obtaining and maintaining various types of certificates and ratings, including mechanic certificates. It sets forth the eligibility requirements, as well as the privileges and limitations associated with these certificates. In contrast, 14 CFR 43 primarily addresses the maintenance and alterations of aircraft, detailing the standards for performing these tasks but not specifically focusing on certificate issuance. 14 CFR 91 refers to general operating and flight rules for aircraft and does not cover the certification processes. AC 43.13-3 is an advisory circular that provides guidance on acceptable methods for maintenance but does not have regulatory authority itself regarding certification. Thus, 14 CFR 65 is the correct choice as it directly pertains to the issuance of mechanic certificates and the qualifications required for obtaining them.

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:

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

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