MTTC 103 Elementary Practice (Sample)

Study Guide

BY EXAMZIFY

Everything you need from our exam experts!

Sample study guide. For the full version with hundreds of questions, visit:
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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.

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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!

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Questions

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1. **Which writing style is least likely to be used for academic texts?**
   - **A. Expository**
   - **B. Narrative**
   - **C. Descriptive**
   - **D. Persuasive**

2. **Which of the following activities would help students learn and understand how sound travels?**
   - **A. Making a flute out of straws.**
   - **B. Putting a balloon over a plastic cup, pouring salt on it, and playing music.**
   - **C. Using spoons to tap on jars filled with various amounts of water.**
   - **D. Making a string phone.**

3. **When introducing equations, which initial approach should Ms. Martin take to support student understanding?**
   - **A. Assign students to work with a partner to solve $3x + 5 = 20$ on whiteboards**
   - **B. Assign students to work individually to solve $3x + 5 = 20$ on paper**
   - **C. Assign students to work with a partner to draw a picture representing $3x + 5 = 20$**
   - **D. Assign students to use mats and counters to demonstrate $3x + 5 = 20$**

4. **What is the main function of the executive branch of government?**
   - **A. To create laws**
   - **B. To enforce laws**
   - **C. To interpret laws**
   - **D. To approve laws**

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5. **Which activity best addresses the theme of courage in a civics class?**
   - A. Taking a class trip to help clean up the local park
   - B. Discussing the activism of Dr. Martin Luther King Jr.
   - C. Establishing a classroom lost-and-found
   - D. Holding a mock trial to explain the concept of jury duty

6. **Which expression is equivalent to dividing 400 by 16?**
   - A. 2(200 - 8)
   - B. (400 / 4) / 12
   - C. (216 / 8) + (184 / 8)
   - D. (216 / 16) + (184 / 16)

7. **Which of the following describes an objective focused on students comparing different wild cats?**
   - A. Measurable and focused on student engagement
   - B. Developmentally appropriate for all grades
   - C. Analysis of comprehension beyond recall
   - D. Incorporating diverse learning modalities

8. **What data do students need to collect to investigate the relationship between weather and bus ridership?**
   - A. The mean number of bus riders during the first week of the month
   - B. The number of rainy days this month
   - C. The number of students who walk home from school when it is sunny
   - D. The mean number of bus riders on rainy days this month

9. **What is the value of 3x + 7x if x = 8?**
   - A. 10
   - B. 21
   - C. 31
   - D. 80

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10. Which of the following best describes effective classroom listening?

A. Making noise when appropriate

B. Interrupting to ask questions

C. Focusing on the speaker

D. Crossing arms while listening

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Answers

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

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Explanations

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1. Which writing style is least likely to be used for academic texts?

A. Expository

B. Narrative

C. Descriptive

D. Persuasive

The narrative writing style is least likely to be used for academic texts because it focuses on storytelling and personal experiences, which are not typical elements in academic writing. Academic texts prioritize presenting information, analysis, and arguments based on research rather than telling a story. Expository writing is common in academic contexts because it aims to inform and explain ideas systematically. Descriptive writing can also appear in academic texts, especially when it is necessary to provide detailed imagery or context, while persuasive writing is frequently used to argue a point or convince the audience of a particular viewpoint, which is also a common objective in academic writing. Therefore, narrative writing's reliance on plot and character development makes it less suitable for most academic purposes compared to the other styles.

2. Which of the following activities would help students learn and understand how sound travels?

A. Making a flute out of straws.

B. Putting a balloon over a plastic cup, pouring salt on it, and playing music.

C. Using spoons to tap on jars filled with various amounts of water.

D. Making a string phone.

Making a string phone is an excellent activity to help students learn how sound travels. This hands-on experiment demonstrates the principles of sound waves and vibrations in a tangible way. When one person speaks into one end of the string, vibrations travel along the string to the other person's end, translating into sound. This physical representation allows students to visualize how sound can travel through different mediums (in this case, a solid string) rather than through the air, highlighting the concept that sound requires a medium in which to travel. Engaging in this activity also provides an opportunity for students to explore sound intensity and clarity, as they can experiment with different lengths of string and varying tensions. Understanding these fundamental concepts through experimentation encourages deeper insight into the properties of sound and its medium. Other options, while they do involve sound and could provide educational value, might not as effectively illustrate the fundamental concept of sound travel. For example, making a flute out of straws focuses on the creation of sound rather than how it travels, and using spoons on jars filled with water is more about the pitch and resonance of sound, rather than its transmission. Pouring salt on a balloon while playing music might produce visual effects related to sound but does not directly convey how sound travels in a

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3. When introducing equations, which initial approach should Ms. Martin take to support student understanding?

A. Assign students to work with a partner to solve 3x + 5 = 20 on whiteboards

B. Assign students to work individually to solve 3x + 5 = 20 on paper

C. Assign students to work with a partner to draw a picture representing 3x + 5 = 20

D. Assign students to use mats and counters to demonstrate 3x + 5 = 20

The most effective initial approach for supporting student understanding when introducing equations is to use mats and counters to demonstrate the equation 3x + 5 = 20. This hands-on method allows students to physically manipulate objects that represent the numerical values and the variable in the equation. By using concrete materials like mats and counters, students can visualize the components of the equation, which serves to deepen their comprehension of the underlying concepts. This tactile experience helps to bridge the gap between abstract mathematical concepts and students' prior knowledge, particularly for those who may struggle with understanding equations in a purely symbolic form. As students move counters to represent the value of x or to symbolize the addition of 5, they engage actively with the material, promoting an understanding of balance and equivalence in equations. In contrast, approaches that rely on drawing pictures or working with partners may not provide the same level of concrete engagement necessary for some learners. While collaborative work can enhance learning in certain contexts, beginning with the physical manipulation of counters is particularly valuable for foundational understanding of equations, especially for visual and kinesthetic learners.

4. What is the main function of the executive branch of government?

A. To create laws

B. To enforce laws

C. To interpret laws

D. To approve laws

The primary role of the executive branch of government is to enforce laws. This branch is responsible for implementing and upholding the laws that have been established by the legislative branch. The executive branch is led by the president (or equivalent head of government) and includes various departments and agencies that carry out day-to-day administration and enforcement of legislation. When laws are created by the legislative body, they often require active engagement and oversight to ensure compliance and functionality in society. The executive branch oversees this process, ensuring that laws are applied correctly and that public policies are executed effectively. This enforcement role includes a wide range of responsibilities, such as managing government operations, enforcing regulations, ensuring public safety, and administering justice through various agencies like the police and other governmental organizations. In contrast, the other options highlight different functions of government branches: creating laws is primarily the role of the legislative branch, interpreting laws is the domain of the judicial branch, and approving laws (typically through mechanisms such as vetoes or confirmations) also falls under the purview of the legislative branch rather than the executive.

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5. Which activity best addresses the theme of courage in a civics class?

A. Taking a class trip to help clean up the local park

B. Discussing the activism of Dr. Martin Luther King Jr.

C. Establishing a classroom lost-and-found

D. Holding a mock trial to explain the concept of jury duty

The activity that best addresses the theme of courage in a civics class is the discussion of the activism of Dr. Martin Luther King Jr. This choice highlights not only his significant contributions to the civil rights movement but also his unwavering commitment to fighting against injustice despite the personal risks he faced. By exploring his life and activism, students can engage with concepts of moral and social courage, as King exemplified the courage to stand up for his beliefs and advocate for equality in the face of adversity. This discussion allows students to reflect on what it means to be courageous in their own lives and can inspire them to think about the importance of civic engagement. In contrast, while cleaning a park or holding a mock trial may involve participation and contribute to civic responsibility, they do not directly delve into the notion of personal and moral courage demonstrated by historical figures. Establishing a lost-and-found is a practical task but lacks the thematic depth associated with courage in a civic context.

6. Which expression is equivalent to dividing 400 by 16?

A. 2(200 - 8)

B. (400 / 4) / 12

C. (216 / 8) + (184 / 8)

D. (216 / 16) + (184 / 16)

Dividing 400 by 16 can be expressed in a way that breaks down both the numerator and the denominator into smaller, more manageable parts that still yield the same result. The fourth option shows how to do this by breaking 400 into two parts: 216 and 184. When you calculate (216 / 16) + (184 / 16), you are effectively adding the results of two individual divisions. Since you have the same denominator (16) for both fractions, this can be simplified to (216 + 184) / 16, which equals 400 / 16. This means that the overall value of the expression remains equal to dividing 400 by 16, confirming its equivalency. On the other hand, the other choices do not maintain this equivalency in the same way. The first option multiplies and subtracts in a manner that does not reflect a straightforward division, while the second option does not accurately represent the same numerical outcome through its divisions. The third option similarly breaks apart the divisions incorrectly, resulting in a different value altogether. Thus, the option that maintains the division in a manner equivalent to dividing 400 by 16 is the one that stands correct.

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7. Which of the following describes an objective focused on students comparing different wild cats?

A. Measurable and focused on student engagement

B. Developmentally appropriate for all grades

C. Analysis of comprehension beyond recall

D. Incorporating diverse learning modalities

The choice that accurately describes an objective focused on students comparing different wild cats emphasizes measurable outcomes that engage students. An objective that requires students to compare different wild cats allows for specific tasks to be set, such as identifying characteristics, behaviors, habitats, and adaptations of various species. This type of objective can be assessed through various means, such as presentations, written reports, or discussions, which facilitates measurement of student understanding and engagement with the topic. The concept of student engagement is also crucial. When students are actively involved in comparing different species, they are more likely to retain information and develop a deeper understanding of biodiversity. This kind of objective fosters curiosity and motivates learners to explore the subject matter further, making it not only measurable but also relevant and engaging for them. Developmentally appropriate for all grades might suggest a lack of specificity in objectives. While comparing wild cats can be adapted for different age groups, stating that it is developmentally appropriate does not directly address the focus on comparison, measurement, or engagement. Analysis of comprehension beyond recall indicates a higher level of cognitive processing, such as synthesis or evaluation, rather than simply engaging students in comparison. While comparison can be part of this higher thinking, it does not exclusively encompass the breadth of analytical skills involved. Incorporating

8. What data do students need to collect to investigate the relationship between weather and bus ridership?

A. The mean number of bus riders during the first week of the month

B. The number of rainy days this month

C. The number of students who walk home from school when it is sunny

D. The mean number of bus riders on rainy days this month

When investigating the relationship between weather and bus ridership, it is essential to focus on data that directly correlates the two variables. Collecting the mean number of bus riders on rainy days specifically allows for a clear analysis of how bus ridership is affected by inclement weather. This information can be compared to ridership data on days when the weather is different, such as sunny or dry days, to assess any significant patterns or trends. Gathering data on the mean number of riders on rainy days enables researchers to draw direct correlations between rainy weather and ridership levels. This comparison can reveal whether rainy conditions lead to increased or decreased use of the bus service, thereby providing valuable insights into the impact of weather on students' transportation choices. In contrast, options that examine data outside of this focus, such as the total number of rainy days or the number of students who do not ride the bus, do not directly contribute to understanding the impact of weather on bus ridership. Therefore, collecting data specifically about bus riders on rainy days is the most relevant approach to explore this relationship effectively.

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9. What is the value of 3x + 7x if x = 8?

A. 10

B. 21

C. 31

D. 80

To determine the value of the expression \(3x + 7x\) when \(x = 8\), you first combine the terms in the expression. The expression \(3x + 7x\) can be simplified by adding the coefficients of \(x\): \[3x + 7x = (3 + 7)x = 10x \] Now, substitute the value of \(x\) (which is 8) into the simplified expression: \[10x = 10(8) = 80 \] Thus, when performing the multiplication, the result is 80. This is why the correct value of the expression when \(x = 8\) is 80.

10. Which of the following best describes effective classroom listening?

A. Making noise when appropriate

B. Interrupting to ask questions

C. Focusing on the speaker

D. Crossing arms while listening

Effective classroom listening involves actively focusing on the speaker. This means paying close attention to what the teacher or presenter is saying without distractions. Focusing on the speaker allows students to better understand the material being presented, engage with the content, and take appropriate notes if necessary. This active engagement with the speaker also demonstrates respect and encourages a positive classroom environment, making it easier for the speaker to communicate effectively. The other responses outline behaviors that detract from effective listening. Making noise does not contribute to comprehension and can disrupt others. Interrupting the speaker with questions can break the flow of information and might prevent the listener from fully grasping the message being conveyed. Crossing arms may be perceived as a closed body language, suggesting disinterest or defensiveness, which does not foster an environment conducive to effective listening. Therefore, focusing on the speaker is indeed the most appropriate description of effective classroom listening.

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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://mttc-103.examzify.com

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

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