

CERTIFIED EKG TECHNICIAN (CET) PRACTICE EXAM (SAMPLE)

STUDY GUIDE



**SAMPLE STUDY GUIDE
WITH LIMITED QUESTIONS**

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

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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 most appropriate site for an EKG technician to take the pulse of an infant?**
 - A. Radial artery
 - B. Brachial artery
 - C. Carotid artery
 - D. Femoral artery

- 2. The P wave represents which physiological process?**
 - A. Atrial repolarization
 - B. Atrial depolarization
 - C. Ventricular contraction
 - D. Ventricular filling

- 3. At what percentage of their target heart rate can stress tests be stopped?**
 - A. 75%-90%
 - B. 85%-95%
 - C. 85%-100%
 - D. 90%-100%

- 4. What actions should the technician perform before an exercise stress test?**
 - A. Only measure the patient's weight
 - B. Obtain an EKG while the patient is supine, sitting, and standing up
 - C. Assess the patient's mental state
 - D. Check the patient's medication history

- 5. What might a notched QRS complex indicate?**
 - A. Myocardial ischemia
 - B. Atrial enlargement
 - C. A bundle branch block
 - D. Ventricular hypertrophy only

- 6. What irregularity does the variation in respirations correlating with EKG tracing indicate?**
- A. Atrial fibrillation
 - B. Sinus bradycardia
 - C. Sinus dysrhythmia
 - D. Ventricular tachycardia
- 7. How does one calibrate the EKG machine?**
- A. By adjusting paper speed
 - B. By using a standardized voltage
 - C. By manually measuring heart rate
 - D. By connecting to a computer
- 8. What is the correct location for placement of lead V8?**
- A. Left anterior axillary line
 - B. Left midclavicular line
 - C. Left midscapular line
 - D. Right subclavian line
- 9. During which EKG phase does myocardial ischemia typically occur?**
- A. During the P wave
 - B. During the ST segment
 - C. During the T wave
 - D. During the QRS complex
- 10. When instructing a patient about using a transtelephonic event monitor, where should the card be applied during an event?**
- A. On the upper chest
 - B. Over the left shoulder
 - C. On the wrist
 - D. Over the middle to lower part of the sternum

Answers

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

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Explanations

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1. What is the most appropriate site for an EKG technician to take the pulse of an infant?

- A. Radial artery
- B. Brachial artery**
- C. Carotid artery
- D. Femoral artery

Taking the pulse of an infant is typically most appropriately done at the brachial artery. This is due to the anatomical positioning and accessibility of the brachial artery in infants, which runs along the inside of the upper arm. This site allows for a reliable assessment of heart rate without the need for more invasive methods or causing discomfort to the infant. In contrast, while the radial artery can be used for pulse checking in older children and adults, its smaller size and depth can make it difficult to locate in infants. The carotid artery, located in the neck, is more challenging to access safely in infants and is generally not used as a routine pulse site in this age group. The femoral artery, found in the groin area, is another potential site but is also more invasive and less convenient compared to the brachial artery, particularly in emergency or routine assessments of heart rate in infants. Therefore, the brachial artery is the most appropriate and recommended site for taking the pulse of an infant.

2. The P wave represents which physiological process?

- A. Atrial repolarization
- B. Atrial depolarization**
- C. Ventricular contraction
- D. Ventricular filling

The P wave on an electrocardiogram (EKG) specifically represents atrial depolarization, which is the process whereby the atria of the heart contract in response to electrical impulses. This depolarization occurs when the sinoatrial (SA) node, the heart's natural pacemaker, sends out an electrical signal that causes the muscle cells in the atria to become excited and initiate contraction. This process is crucial because it contributes to filling the ventricles with blood before they contract. Understanding this waveform is essential for interpreting EKGs, as it provides insight into the electrical activity associated with the atrial phase of the cardiac cycle. The characteristics of the P wave, such as its shape and duration, can also offer important information regarding atrial health and function. In contrast, the other options pertain to different aspects of cardiac physiology. Atrial repolarization is reflected in the QRS complex rather than the P wave; ventricular contraction is associated with the QRS complex, not the P wave; and ventricular filling occurs primarily during diastole, which is not represented by the P wave. Each of these processes is distinct and serves an important function in the overall mechanics of the heart but does not relate to the specific representation

3. At what percentage of their target heart rate can stress tests be stopped?

- A. 75%-90%
- B. 85%-95%
- C. 85%-100%**
- D. 90%-100%

In the context of stress tests, they are typically conducted to evaluate a patient's cardiovascular response to exercise and can be stopped once the target heart rate is reached. The common guideline for terminating a stress test is at 85% of the patient's estimated maximum heart rate; however, under certain circumstances and types of tests, a target heart rate of up to 100% can be considered, especially when testing athletic individuals or in a controlled setting where the patient's health allows for it. Reaching up to 100% of maximum heart rate can provide important information about cardiovascular performance and the patient's ability to tolerate stress. Thus, the range of 85% to 100% encompasses a commonly accepted threshold for when to conclude a stress test, making it the correct choice. The other ranges, while they may seem relevant, do not fully align with the clinical guidelines for stress test termination, as they either fall short of the full potential maximum heart rate that may be safely assessed in select populations or suggest a narrower range that has less applicability in practical settings.

4. What actions should the technician perform before an exercise stress test?

- A. Only measure the patient's weight
- B. Obtain an EKG while the patient is supine, sitting, and standing up**
- C. Assess the patient's mental state
- D. Check the patient's medication history

Before conducting an exercise stress test, it is important for the technician to obtain an EKG while the patient is supine, sitting, and standing up. This procedure is crucial as it provides baseline measurements of the heart's electrical activity before the patient begins exercising. Assessing the EKG in these different positions can help identify any potential abnormalities that may be exacerbated during physical activity. By having this comprehensive view of the patient's cardiac function in various postures, the technician can better interpret changes in heart activity that occur during the stress test. In contrast, measuring the patient's weight alone does not provide relevant information needed for the stress test. While assessing the patient's mental state is important for overall health and safety, it is not a direct action related to preparing for the physiological changes expected during the test. Checking the medication history is also valuable, as certain medications can affect heart rate and response to exercise, but it does not replace the necessity of obtaining a baseline EKG in different positions, which is essential for the test's accuracy and safety.

5. What might a notched QRS complex indicate?

- A. Myocardial ischemia
- B. Atrial enlargement
- C. A bundle branch block**
- D. Ventricular hypertrophy only

A notched QRS complex is commonly associated with a bundle branch block. In this condition, the electrical conduction through one of the bundle branches in the ventricles is impaired, leading to a delay in depolarization of one side compared to the other. This difference in depolarization results in a characteristic notched appearance on the electrocardiogram (ECG) waveform. The presence of the notch indicates that one ventricle is contracting slightly later than the other, which is a hallmark of bundle branch blocks. This condition can often manifest in various forms, such as left bundle branch block or right bundle branch block, and the specific appearance of the notches can help to determine which bundle branch is affected. Understanding this relationship is essential for accurately interpreting ECGs and diagnosing potential cardiac issues. Other conditions mentioned, such as myocardial ischemia, atrial enlargement, and ventricular hypertrophy, can lead to changes in the QRS complex or other parts of the ECG, but they typically don't produce the distinctive notched appearance associated with bundle branch blocks. Recognizing this can aid in proper diagnosis and treatment of heart conditions.

6. What irregularity does the variation in respirations correlating with EKG tracing indicate?

- A. Atrial fibrillation
- B. Sinus bradycardia
- C. Sinus dysrhythmia**
- D. Ventricular tachycardia

The variation in respirations correlating with the EKG tracing indicates sinus dysrhythmia. Sinus dysrhythmia is characterized by a natural fluctuation in heart rate that is closely associated with the respiratory cycle; heart rate increases during inhalation and decreases during exhalation. This variation reflects the influence of the autonomic nervous system on heart rate, particularly the vagal tone, which changes with breathing patterns. It is commonly seen in healthy individuals, particularly in children and young adults, and is a normal physiological response to breathing. The presence of this correlation in the EKG tracing serves as evidence of the normal function of the heart in relation to the respiratory system, distinguishing it from other cardiac irregularities that do not demonstrate this relationship.

7. How does one calibrate the EKG machine?

- A. By adjusting paper speed
- B. By using a standardized voltage**
- C. By manually measuring heart rate
- D. By connecting to a computer

Calibration of an EKG machine is an essential process that ensures accurate measurements and readings. The correct choice involves using a standardized voltage during calibration. This helps to confirm that the machine's output corresponds precisely to the accepted voltage measurements for electrical signals emitted by the heart. When the standardized voltage is applied, the deflection on the EKG printout should reflect specific millivolt levels accurately, allowing technicians to verify that the machine is functioning properly and can provide reliable heart signal recordings. This step is crucial for ensuring that subsequent EKGs will yield data that can be trusted for clinical assessments. Other actions, such as adjusting paper speed, while part of operating the machine, are not directly related to calibrating the accuracy of the EKG readings. Manually measuring heart rate is also essential for analyzing an EKG, but it does not impact the calibration process. Connecting to a computer may involve data management or storage functions, but it is not part of the fundamental calibration procedure necessary for the machine's output accuracy.

8. What is the correct location for placement of lead V8?

- A. Left anterior axillary line
- B. Left midclavicular line
- C. Left midscapular line**
- D. Right subclavian line

The placement of lead V8 is specifically located on the left midscapular line. This site is essential for accurate ECG readings because it allows for a proper representation of the heart's electrical activity from the posterior aspect. Lead V8 complements the other precordial leads by providing additional information about the heart's electrical function, particularly the left side of the heart's performance. Correct placement of this lead is crucial for diagnosing various cardiac conditions as it helps capture the electrical activity in areas that might not be adequately represented by leads positioned on the anterior chest wall. Leads such as V6 and V7 are placed at other specific locations but do not replace the unique perspective provided by V8, which is often used in conjunction with the standard precordial leads to give a comprehensive view of the heart's electrical activity. This underscores the importance of precise lead placement in electrocardiogram interpretation.

9. During which EKG phase does myocardial ischemia typically occur?

- A. During the P wave
- B. During the ST segment**
- C. During the T wave
- D. During the QRS complex

Myocardial ischemia is a condition where there is a decrease in blood flow to the heart muscle, often resulting from coronary artery disease or other factors. It typically manifests in specific changes on an electrocardiogram (EKG). The ST segment is particularly significant in the assessment of myocardial ischemia. Under normal circumstances, the ST segment is isoelectric—meaning it is flat and does not deviate from the baseline. However, during episodes of ischemia, the ST segment can become elevated or depressed. Elevated ST segment often indicates a condition known as ST-Elevation Myocardial Infarction (STEMI), while a depressed ST segment can suggest subendocardial ischemia, which is less severe but still indicative of inadequate blood supply to the myocardium. In contrast, the P wave reflects atrial depolarization, which is not directly involved in ischemia; the QRS complex represents ventricular depolarization and does not primarily show ischemic changes unless there is significant myocardial damage; and the T wave reflects ventricular repolarization. While T wave changes can also indicate ischemia, the ST segment is the most recognized phase for identifying myocardial ischemia on an EKG. Thus, the ST segment is the critical moment when

10. When instructing a patient about using a transtelephonic event monitor, where should the card be applied during an event?

- A. On the upper chest
- B. Over the left shoulder
- C. On the wrist
- D. Over the middle to lower part of the sternum**

Applying the card over the middle to lower part of the sternum is the correct method when using a transtelephonic event monitor. This placement is optimal for capturing the heart's electrical activity, as it is centrally located where the heart is positioned within the thoracic cavity. This area offers a direct line to monitor the electrical signals effectively, ensuring accurate readings during an event. The other locations, while potentially effective for different types of monitoring (e.g., upper chest or wrist), may not provide as reliable or comprehensive data for the purpose of the transtelephonic event monitor, which is specifically designed to detect cardiac events that typically originate near the heart. Hence, the standard practice is to place the monitoring device over the sternum, ensuring better contact and signal transmission for proper assessment.

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://cet.examzify.com>

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

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