

# BAMC Telemetry Practice Test (Sample)

## Study Guide



**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

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- 1. What characterizes a biphasic defibrillator shock?**
  - A. A shock that delivers electricity in a single phase to the heart**
  - B. A systematic approach to prevent defibrillation failure**
  - C. A shock that delivers electricity in two phases to the heart, increasing the chance of resumption of normal rhythm**
  - D. A technique used exclusively for ventricular tachycardia**
  
- 2. What is the resting membrane potential of a cardiac cell?**
  - A. About -50 mV**
  - B. About -70 mV**
  - C. About -90 mV**
  - D. About -60 mV**
  
- 3. What is indicated by a pacer spike on an EKG strip?**
  - A. An intrinsic heart beat**
  - B. A heart block**
  - C. A pacing stimulus entering the heart**
  - D. Electrode disconnection**
  
- 4. Why are electrolyte levels closely monitored in telemetry patients?**
  - A. They affect the patient's diet**
  - B. They can lead to life-threatening arrhythmias**
  - C. They determine medication dosing**
  - D. They influence the patient's mental status**
  
- 5. How does a biphasic defibrillator differ from a monophasic defibrillator?**
  - A. A biphasic defibrillator uses two shocks, while a monophasic uses one**
  - B. A biphasic defibrillator is more effective for ventricular fibrillation, while a monophasic is not**
  - C. A biphasic defibrillator is used only in pediatric cases**
  - D. A biphasic defibrillator is easier to operate than a monophasic**

- 6. Which of the following treatments is administered for idioventricular rhythm?**
- A. Amiodarone**
  - B. Atropine**
  - C. Digoxin**
  - D. Verapamil**
- 7. What is an important consideration for nurses when interpreting telemetry data?**
- A. Considering the patient's medical history and current condition**
  - B. Focusing solely on abnormal readings**
  - C. Only following standard protocols without flexibility**
  - D. Interpreting data without consulting other staff**
- 8. What does a flat T-wave on an ECG reading typically signify?**
- A. Possible myocardial ischemia or electrolyte imbalances**
  - B. Normal heart function and regulation**
  - C. Presence of a heart block**
  - D. Significant increase in heart rate**
- 9. What is the purpose of telemetry monitoring?**
- A. To ensure patients can leave the unit within hours**
  - B. To continuously monitor and evaluate the heart's electrical activity**
  - C. To administer medications only**
  - D. To allow patients to engage in physical therapy**
- 10. From where does the Bundle of His arise?**
- A. From the left ventricle**
  - B. From the AV node**
  - C. From the SA node**
  - D. From the right atrium**



## Answers

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

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## **Explanations**

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## 1. What characterizes a biphasic defibrillator shock?

- A. A shock that delivers electricity in a single phase to the heart
- B. A systematic approach to prevent defibrillation failure
- C. A shock that delivers electricity in two phases to the heart, increasing the chance of resumption of normal rhythm**
- D. A technique used exclusively for ventricular tachycardia

A biphasic defibrillator shock is characterized by delivering electricity in two phases to the heart. This method involves first sending a charge in one direction and then reversing the polarity to send a charge in the opposite direction. The two-phase approach has been shown to be more effective than monophasic shocks (which deliver electricity in a single phase) because it can better depolarize the cardiac tissue. This increased effectiveness leads to a higher probability of restoring a normal heart rhythm after a malfunction, such as a ventricular fibrillation or pulseless ventricular tachycardia. While there are systematic approaches in defibrillation and implications for various tachyarrhythmias, the defining feature of a biphasic shock is its two-phased delivery of energy, which is crucial for maximizing the chances of a successful outcome. This characteristic distinguishes it from other types of defibrillation techniques and contributes significantly to its clinical utility.

## 2. What is the resting membrane potential of a cardiac cell?

- A. About -50 mV
- B. About -70 mV**
- C. About -90 mV
- D. About -60 mV

The resting membrane potential of a cardiac cell is approximately -90 mV. This value is significant because it reflects the ionic concentration gradients across the cell membrane, primarily maintained by the sodium-potassium ATPase pump. In cardiac cells, the high permeability to potassium ions when the cell is at rest contributes to this negative charge inside the cell, as potassium tends to diffuse out of the cell, leaving behind negatively charged proteins and ions. While -70 mV, which is the choice provided, is closer to the resting potentials seen in neuronal cells, cardiac cells exhibit a more negative resting potential due to the unique ionic dynamics involved, which promote a resting state that is even more negative. The difference in resting membrane potential between cardiac and neuronal cells is essential for their respective functions, particularly in the generation and propagation of action potentials in cardiac tissue.

### 3. What is indicated by a pacer spike on an EKG strip?

- A. An intrinsic heart beat
- B. A heart block
- C. A pacing stimulus entering the heart**
- D. Electrode disconnection

A pacer spike on an EKG strip indicates a pacing stimulus entering the heart. This spike appears as a vertical line on the EKG, signaling that an artificial pacemaker is delivering an electrical impulse to stimulate the heart's contraction. The presence of a pacer spike means that the pacemaker is functioning properly and is effectively informing the heart to contract, which is essential for patients whose natural heart rhythm is inadequate or absent. Understanding this concept is critical for interpreting EKGs, especially in patients with known pacing devices or those at risk for arrhythmias. The ability to recognize and correctly interpret pacer spikes assists healthcare professionals in providing appropriate cardiac care and assessing the pacer's effectiveness.

### 4. Why are electrolyte levels closely monitored in telemetry patients?

- A. They affect the patient's diet
- B. They can lead to life-threatening arrhythmias**
- C. They determine medication dosing
- D. They influence the patient's mental status

Electrolyte levels are closely monitored in telemetry patients primarily because they can lead to life-threatening arrhythmias. Electrolytes such as potassium, calcium, and magnesium play a critical role in the electrical activity of the heart. An imbalance in these levels can disrupt the normal conduction system of the heart, leading to serious cardiac events, including arrhythmias, which can be fatal if not addressed promptly. In patients with underlying heart conditions or those undergoing monitoring for other health issues, these electrolyte imbalances can present significant risks. Therefore, continuous observation of electrolyte levels allows healthcare providers to take timely action to correct any abnormalities and prevent potential cardiac complications. This vigilance is crucial in telemetry settings, where continuous heart monitoring is essential for patient safety and effective management.

**5. How does a biphasic defibrillator differ from a monophasic defibrillator?**

- A. A biphasic defibrillator uses two shocks, while a monophasic uses one**
- B. A biphasic defibrillator is more effective for ventricular fibrillation, while a monophasic is not**
- C. A biphasic defibrillator is used only in pediatric cases**
- D. A biphasic defibrillator is easier to operate than a monophasic**

A biphasic defibrillator distinguishes itself through the way it delivers electrical energy to the heart. It sends a shock in one direction during the first phase and then reverses the direction for the second phase. This two-way delivery can result in a more effective shock because it allows for better energy distribution in the heart muscle, potentially leading to a more successful restoration of normal rhythm. The key aspect of this technology is its ability to minimize myocardial damage while maximizing the chances of converting lethal arrhythmias like ventricular fibrillation back to a normal sinus rhythm. This effectiveness makes biphasic defibrillators a preferred choice in many emergency settings over monophasic devices, which deliver energy in a single direct wave. The latter is not inherently less effective but generally requires higher energy levels to achieve successful defibrillation, thus increasing the risk of injury to heart tissue. In summary, the correct answer highlights a fundamental difference in the operational characteristics of biphasic and monophasic defibrillators, which impacts their effectiveness in critical situations.

**6. Which of the following treatments is administered for idioventricular rhythm?**

- A. Amiodarone**
- B. Atropine**
- C. Digoxin**
- D. Verapamil**

Atropine is used in the treatment of idioventricular rhythm primarily when the heart rate is too low and there are signs of decreased perfusion. Idioventricular rhythm occurs when the intrinsic pacemaker of the heart, typically the sinoatrial node, fails to initiate a heartbeat, and the ventricles take over as the primary pacemaker. This can lead to bradycardia and inadequate blood flow. Atropine works by blocking the effects of the vagus nerve, leading to an increase in heart rate. This is particularly useful in cases where the idioventricular rhythm has caused significant bradycardia or is associated with symptoms like dizziness, weakness, or hypotension. The goal of using atropine in this scenario is to improve heart rate and, consequently, cardiac output. Other treatments listed can serve different purposes but are not specifically aimed at addressing idioventricular rhythms in the same manner. For example, amiodarone is an antiarrhythmic that is often used to manage tachyarrhythmias rather than bradyarrhythmias. Digoxin has a role in heart failure and atrial fibrillation but can further complicate bradycardia issues. Verapamil is a calcium channel blocker

**7. What is an important consideration for nurses when interpreting telemetry data?**

- A. Considering the patient's medical history and current condition**
- B. Focusing solely on abnormal readings**
- C. Only following standard protocols without flexibility**
- D. Interpreting data without consulting other staff**

An important consideration for nurses when interpreting telemetry data is to take into account the patient's medical history and current condition. This context is critical because it helps healthcare professionals understand the significance of certain rhythm changes or abnormalities in relation to the patient's overall health status. For example, a certain change in heart rhythm might be alarming in one patient due to their history of cardiovascular issues, while it might be less concerning in another who has no such background. By integrating the telemetry data with the clinical picture and individual patient factors, nurses can make more informed decisions about patient care and prioritize interventions effectively. Having this comprehensive view also aids in identifying patterns or trends that may not be apparent when examining telemetry data in isolation. It enhances clinical judgment and allows for a more tailored approach to treatment and monitoring, improving overall patient outcomes.

**8. What does a flat T-wave on an ECG reading typically signify?**

- A. Possible myocardial ischemia or electrolyte imbalances**
- B. Normal heart function and regulation**
- C. Presence of a heart block**
- D. Significant increase in heart rate**

A flat T-wave on an ECG reading is often indicative of possible myocardial ischemia or electrolyte imbalances. The T-wave represents the repolarization of the ventricles, and alterations in its shape can reflect underlying cardiac conditions. A flat T-wave may suggest that the heart muscle is not receiving enough blood or oxygen, which can occur during ischemic events. Furthermore, electrolyte imbalances, particularly low potassium (hypokalemia) or low magnesium (hypomagnesemia), can also lead to a flattened T-wave. Monitoring these changes is crucial, as they can provide valuable insights into the patient's cardiac health and prompt further investigation or intervention as needed. Other options, such as normal heart function, the presence of a heart block, or significant increases in heart rate, do not align with the characteristic implications of a flat T-wave. Normal heart function would typically present with clearly defined T-waves, while heart blocks and increased heart rates have their own distinct ECG patterns that do not primarily include flattened T-waves.

## 9. What is the purpose of telemetry monitoring?

- A. To ensure patients can leave the unit within hours
- B. To continuously monitor and evaluate the heart's electrical activity**
- C. To administer medications only
- D. To allow patients to engage in physical therapy

The purpose of telemetry monitoring is to continuously monitor and evaluate the heart's electrical activity. This method provides real-time data about the heart's rhythm and rate, allowing healthcare professionals to detect any abnormalities or changes that may indicate a medical emergency, such as arrhythmias or ischemic events. Continuous observation is crucial in clinical settings, especially for patients with cardiovascular conditions or those recovering from surgery, as it helps in making timely decisions regarding treatment and care. While other options relate to patient care, they do not accurately reflect the primary function of telemetry monitoring. For example, ensuring patients can leave the unit within hours concerns discharge planning rather than monitoring health status. Administering medications is a separate aspect of patient care unrelated to telemetry itself. Engaging in physical therapy is also an important part of recovery but does not pertain to the purpose of telemetry, which specifically focuses on heart monitoring. Thus, the continuous evaluation of the heart's electrical activity is the fundamental role of telemetry monitoring.

## 10. From where does the Bundle of His arise?

- A. From the left ventricle
- B. From the AV node**
- C. From the SA node
- D. From the right atrium

The Bundle of His arises from the AV node, which is a crucial part of the heart's conduction system. The AV node, located at the junction of the atria and ventricles, serves as a critical relay point that receives electrical impulses from the sinoatrial (SA) node and conducts them to the ventricles via the Bundle of His. This arrangement ensures that the contraction of the ventricles occurs in a coordinated manner after the atria have contracted and pushed blood into the ventricles. Understanding this pathway highlights the significance of the AV node in maintaining the rhythmic contractions of the heart and underscores its role in preventing arrhythmias that can arise from improper conduction.



## 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](mailto:hello@examzify.com).**

**Or visit your dedicated course page for more study tools and resources:**

**<https://bamctelemetry.examzify.com>**

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

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