ACS CARDIAC MEDICINE CERTIFICATION (CMC) PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR THE FULL VERSION STUDY GUIDE

https://acscmc.examzify.com

Copyright © 2026 by Examzify - A Kaluba Technologies Inc. product.

ALL RIGHTS RESERVED.

No part of this book may be reproduced or transferred in any form or by any means, graphic, electronic, or mechanical, including photocopying, recording, web distribution, taping, or by any information storage retrieval system, without the written permission of the author.

Notice: Examzify makes every reasonable effort to obtain accurate, complete, and timely information about this product from reliable sources.

SAMPLE

Table of Contents

Copyright 1
Table of Contents 2
Introduction 3
How to Use This Guide 4
Questions 5
Answers 8
Explanations 10
Next Steps 16

SAMPLE

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.

SAMPLE

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!

SAMPLE

Questions

SAMPLE

1. **Which medication class is contraindicated in acute decompensated heart failure?**

   A. Diuretics

   B. Calcium channel blockers

   C. Beta-blockers

   D. ACE inhibitors

2. **What is the most likely diagnosis for a 66-year-old male experiencing intermittent episodes of chest pressure that resolve spontaneously?**

   A. Unstable angina

   B. Pericarditis

   C. STEMI

   D. Stable angina

3. **Which method could potentially lead to arrhythmia detection being suspended in an ICD?**

   A. External defibrillation

   B. Using a magnet

   C. Increasing detection rates

   D. Administering medications

4. **Which rhythm is represented by a sawtooth pattern on an ECG?**

   A. Atrial fibrillation

   B. Atrial flutter

   C. Ventricular tachycardia

   D. Normal sinus rhythm

5. **In which leads would you see ST elevation indicating an inferior wall myocardial infarction (MI)?**

   A. Leads I, aVL, V5, and V6

   B. Leads II, III, and aVF

   C. Leads V1-V4

   D. Leads V3-V6

SAMPLE

6. What defines coronary artery disease (CAD)?

A. A condition caused by the buildup of plaque in the coronary arteries

B. A heart rhythm disorder

C. A type of heart valve disease

D. A defect present at birth affecting heart structure

7. For a patient experiencing mitral regurgitation following a myocardial infarction, what heart sound would you expect?

A. Diastolic murmur

B. Systolic murmur

C. Continuous murmur

D. None

8. Which procedure is primarily used to assess pulmonary artery pressure and right ventricular function?

A. Left heart catheterization

B. Right heart catheterization

C. Coronary angiography

D. Cardiac MRI

9. What aspect does the echocardiogram measure to evaluate cardiomyopathies?

A. Ventricular rate

B. Cavity size and wall thickness

C. Arrhythmia types

D. Valve functionality

10. Which condition can be a complication of diabetes affecting the heart?

A. Syndrome X

B. Aortic dissection

C. Coronary artery disease

D. Left atrial enlargement

SAMPLE

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Which medication class is contraindicated in acute decompensated heart failure?

A. Diuretics

B. Calcium channel blockers

C. Beta-blockers

D. ACE inhibitors

The medication class contraindicated in acute decompensated heart failure is calcium channel blockers. In the setting of acute decompensated heart failure, the heart's ability to pump blood is significantly impaired, and maintaining adequate cardiac output is critical. Calcium channel blockers can lead to negative inotropic effects, which means they can weaken the heart's contractility and further compromise cardiac output, worsening the patient's condition. In contrast, diuretics are often used to manage fluid overload in heart failure patients, helping to reduce symptoms associated with congestion. Beta-blockers are typically utilized in stable heart failure to improve outcomes over the long term, though they are introduced carefully during treatment of decompensation. ACE inhibitors are also important in heart failure management for their vasodilatory effects and benefits on the neurohormonal system, aiding in reducing the workload on the heart. Therefore, calcium channel blockers are not suitable for patients experiencing acute decompensated heart failure due to their potential to further decrease cardiac function and exacerbate the situation.

2. What is the most likely diagnosis for a 66-year-old male experiencing intermittent episodes of chest pressure that resolve spontaneously?

A. Unstable angina

B. Pericarditis

C. STEMI

D. Stable angina

The scenario presented—intermittent episodes of chest pressure that resolve spontaneously—is most consistent with stable angina. Stable angina typically occurs with exertion or stress and is relieved with rest or the use of nitroglycerin. The key feature here is the transient nature of the chest pressure, which indicates a predictable pattern associated with exertion rather than a more urgent condition. Unstable angina, in contrast, is characterized by episodes of chest pain that increase in frequency, duration, or intensity, which do not resolve with rest or are unpredictable. This patient's symptoms resolving spontaneously and not indicating a pattern of increasing discomfort aligns more closely with stable angina rather than unstable angina, which would suggest a higher risk of imminent myocardial infarction. Pericarditis usually presents with sharp chest pain that can worsen with deep breathing or lying down and is often accompanied by other symptoms or physical findings (like a pericardial rub), which is not described in this case. On the other hand, a STEMI (ST-Elevation Myocardial Infarction) typically presents with more severe, persistent chest pain that does not resolve spontaneously and requires immediate medical intervention. Thus, the characteristics of the chest episodes—specifically their intermittency and resolution—

SAMPLE

3. Which method could potentially lead to arrhythmia detection being suspended in an ICD?

A. External defibrillation

B. Using a magnet

C. Increasing detection rates

D. Administering medications

Using a magnet on an implantable cardioverter-defibrillator (ICD) can indeed suspend arrhythmia detection. This is because the application of a magnet is commonly employed in clinical settings as part of the standard protocol to either troubleshoot or intentionally disable certain devices functions, including rhythm detection and shock delivery, particularly during programming or when a temporary deactivation is needed to prevent unnecessary shocks. The way this works is that the presence of the magnet alters the device's sensing mechanism, which can prevent it from detecting arrhythmias or delivering shocks. This can be useful in various situations, such as when performing tests or procedures that may generate noise or confusion in the device's sensing capabilities. In contrast, external defibrillation is an emergency procedure meant to restore a normal heart rhythm. Increasing detection rates would generally improve the ICD's ability to identify arrhythmias rather than suspend it. Administering medications may affect cardiac rhythm and overall management of arrhythmias, but it does not directly lead to the suspension of arrhythmia detection in an ICD. Thus, the use of a magnet is the method that specifically results in this effect.

4. Which rhythm is represented by a sawtooth pattern on an ECG?

A. Atrial fibrillation

B. Atrial flutter

C. Ventricular tachycardia

D. Normal sinus rhythm

The rhythm associated with a sawtooth pattern on an ECG is atrial flutter. This characteristic waveform is often referred to as "F-waves" or "flutter waves," and it typically manifests as a series of regular, distinct, and sharp deflections that resemble a sawtooth pattern, particularly seen in the inferior leads (II, III, aVF). This pattern is indicative of a rapid reentrant circuit in the atria, leading to coordinated atrial contractions at a high frequency, commonly around 300 beats per minute. Atrial flutter is different from atrial fibrillation, which has an irregularly irregular rhythm without distinct F-waves. In contrast, normal sinus rhythm would display clearly identifiable P waves followed by QRS complexes in a regular pattern, and ventricular tachycardia generally presents as a series of wide QRS complexes without the organized appearance of F-waves seen in atrial flutter. Understanding these differences is essential for accurately diagnosing and managing various cardiac rhythms in clinical practice.

SAMPLE

5. In which leads would you see ST elevation indicating an inferior wall myocardial infarction (MI)?

A. Leads I, aVL, V5, and V6

B. Leads II, III, and aVF

C. Leads V1-V4

D. Leads V3-V6

In the context of diagnosing an inferior wall myocardial infarction (MI), the correct leads to examine for ST segment elevation are primarily leads II, III, and aVF. These leads correspond to the inferior part of the heart and are crucial for identifying ischemic changes associated with inferior wall MIs. Lead II captures electrical activity from the right arm to the left leg, while Lead III captures the activity from the left arm to the left leg, and Lead aVF measures the voltage from the top of the heart (averaging the right and left arm) to the left leg. In the case of an inferior wall MI, the associated ST elevation in these leads indicates that there is a significant disruption in blood flow to the inferior aspect of the heart, typically due to occlusion of the right coronary artery in right-dominant coronary circulation. Understanding the lead placements and their relationship to specific regions of the heart is vital in interpreting EKGs effectively. In contrast, the other listed groups of leads do not have the same relationship to the inferior wall, thereby making their response to an inferior MI different from what is observed in leads II, III, and aVF.

6. What defines coronary artery disease (CAD)?

A. A condition caused by the buildup of plaque in the coronary arteries

B. A heart rhythm disorder

C. A type of heart valve disease

D. A defect present at birth affecting heart structure

Coronary artery disease (CAD) is primarily characterized by the buildup of plaque within the coronary arteries, which supply blood to the heart muscle. This accumulation narrows the arteries, limiting blood flow and potentially leading to ischemic heart conditions, such as angina or myocardial infarction (heart attack). The plaque comprises cholesterol, fatty substances, cellular waste products, and calcium, which can harden and significantly impair the function of the arteries over time. The other options refer to different cardiovascular conditions. A heart rhythm disorder involves irregularities in the heart's electrical conduction system, affecting heartbeat timing and rhythm but not directly related to arterial blockages. Heart valve disease concerns issues with any of the four heart valves, impacting blood flow but is not characterized by plaque buildup in arteries. A defect present at birth, known as congenital heart disease, involves structural problems in the heart and its major blood vessels, which can affect heart function but not specifically related to CAD. Therefore, the correct answer accurately encapsulates the defining feature of coronary artery disease.

SAMPLE

7. For a patient experiencing mitral regurgitation following a myocardial infarction, what heart sound would you expect?

A. Diastolic murmur

B. Systolic murmur

C. Continuous murmur

D. None

In the context of mitral regurgitation following a myocardial infarction, the expected heart sound is a systolic murmur. This is due to the pathophysiology of mitral regurgitation, where the mitral valve fails to close properly during ventricular contraction (systole). As a result, blood flows back from the left ventricle into the left atrium, causing a turbulent blood flow that results in a characteristic systolic murmur. The timing of the murmur is crucial; it is best heard during systole, usually at the apex of the heart, and it may radiate to the left axilla. The presence of this murmur is an important clinical finding, as it can indicate significant valvular insufficiency or dilation of the heart chambers, particularly following ischemic events like myocardial infarction. Understanding the timing of the heart sounds in relation to the cardiac cycle is essential for diagnosing valve-related issues, such as mitral regurgitation. In contrast, the other types of murmurs mentioned would not fit this scenario, as they are associated with different phases of the cardiac cycle or conditions that do not directly relate to the effects of mitral regurgitation following a myocardial infarction.

8. Which procedure is primarily used to assess pulmonary artery pressure and right ventricular function?

A. Left heart catheterization

B. Right heart catheterization

C. Coronary angiography

D. Cardiac MRI

Right heart catheterization is the procedure specifically designed for evaluating pulmonary artery pressure and assessing right ventricular function. During this procedure, a catheter is advanced through the venous system into the right side of the heart and into the pulmonary artery, allowing direct measurement of pressures within these structures. This capability is crucial in diagnosing and managing conditions such as pulmonary hypertension and right heart failure, where understanding the hemodynamics of the right side of the heart is essential for effective treatment planning. The other procedures mentioned do not focus on pulmonary artery pressures. Left heart catheterization primarily assesses the left side of the heart and is used for evaluating coronary artery disease, while coronary angiography visualizes blood vessels supplying the heart but does not provide direct measurements of right heart pressures. Cardiac MRI is useful for visualizing heart structures and assessing cardiac function but does not directly measure hemodynamic pressures. Thus, right heart catheterization stands out as the most appropriate method for assessing both pulmonary artery pressure and the function of the right ventricle.

SAMPLE

9. What aspect does the echocardiogram measure to evaluate cardiomyopathies?

A. Ventricular rate

B. Cavity size and wall thickness

C. Arrhythmia types

D. Valve functionality

When evaluating cardiomyopathies, an echocardiogram is particularly effective at measuring cavity size and wall thickness. In cardiomyopathy, the muscle of the heart may become enlarged, thickened, or otherwise distorted, affecting both the chambers of the heart (the cavities) and the walls separating them. By assessing the size of these cavities, clinicians can gauge the heart's ability to fill and pump blood effectively. Likewise, measuring wall thickness helps in identifying conditions such as hypertrophic cardiomyopathy, where the walls of the heart become excessively thick, potentially obstructing blood flow and leading to complications. The echocardiogram provides critical insights into the structural and functional aspects of the heart, which are vital for diagnosing the type and severity of cardiomyopathy. As for the other options, while ventricular rate, arrhythmias, and valve functionality are all important components of heart assessment, they do not specifically measure the structural characteristics related to cardiomyopathy. Therefore, they are less relevant when the primary focus is on diagnosing or evaluating cardiomyopathies.

10. Which condition can be a complication of diabetes affecting the heart?

A. Syndrome X

B. Aortic dissection

C. Coronary artery disease

D. Left atrial enlargement

Coronary artery disease is a well-established complication of diabetes that significantly affects heart health. Patients with diabetes often experience accelerated atherosclerosis, a condition where plaque builds up in the coronary arteries, leading to narrowed arteries and reduced blood flow to the heart muscle. This increased risk for coronary artery disease in diabetics is attributed to several factors, including dyslipidemia (abnormal lipid levels), hypertension, and insulin resistance, which collectively contribute to vascular damage. The physiological effects of chronic elevated blood glucose levels can lead to endothelial dysfunction, promoting the process of atherosclerosis and increasing the likelihood of acute events such as myocardial infarction. Thus, the link between diabetes and coronary artery disease underscores the importance of tight glycemic control and regular cardiovascular risk assessments in diabetic patients to mitigate these risks. Conditions like Syndrome X, aortic dissection, and left atrial enlargement do not have the same direct and established relationship with diabetes in the context of heart complications. While they can have associations with cardiovascular problems, they are not primarily recognized as direct complications arising from diabetes itself.

SAMPLE

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://acscmc.examzify.com

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

SAMPLE