CFM CARDIOLOGY PRACTICE TEST (SAMPLE)

STUDY GUIDE

SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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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

1. **The right coronary artery perfuses the AV node in approximately what percentage?**

   A. SA node (55%)

   B. Inferior wall of LV via acute marginal

   C. RV wall

   D. AV node (90%)

2. **In the setting of a VAD with high pump speed, what is a recommended initial step?**

   A. Ramp down pump speed immediately

   B. Increase vasopressor dose

   C. Initiate diuretics

   D. Gentle fluid resuscitation

3. **Which axis category corresponds to a 180° to -90° range?**

   A. Normal

   B. Right Axis Deviation

   C. Extreme Axis Deviation

   D. Pathologic Left Axis Deviation

4. **Which of the following is NOT listed as a risk factor for aortic dissection?**

   A. Diabetes mellitus

   B. Hypertension

   C. Pregnancy

   D. Connective tissue disorders

5. **Which of the following is a criterion for left bundle branch block?**

   A. QRS >120 ms

   B. Q waves in lateral leads

   C. Broad terminal R wave in V1-V3

   D. Prolonged PR interval

6. Which rhythm is most likely to present with a regular, wide QRS and absent P waves?

A. Monomorphic VT

B. Atrial fibrillation

C. Atrial flutter

D. Sinus tachycardia

7. Which AVRT mechanism is associated with a narrow QRS complex?

A. Orthodromic AVRT

B. Antidromic AVRT

C. Atrial flutter

D. Atrial fibrillation

8. Valvular Heart Disease is best defined as:

A. Inflammation of the heart muscle.

B. Abnormalities in the heart's valves, such as stenosis or regurgitation, impairing blood flow.

C. Blockage of the coronary arteries.

D. Irregular heart rhythm.

9. Cardiac Output = _____ x _____

A. Stroke Volume x HR

B. Heart Rate x Stroke Volume

C. Blood Volume x Heart Rate

D. Cardiac Output x Afterload

10. In post-ROSC care, what is the target mean arterial pressure (MAP)?

A. MAP > 65

B. MAP > 60

C. MAP > 75

D. MAP > 55

Answers

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

Explanations

1. The right coronary artery perfuses the AV node in approximately what percentage?

A. SA node (55%)

B. Inferior wall of LV via acute marginal

C. RV wall

D. AV node (90%)

The blood supply to the AV node almost always comes from the AV nodal artery, which typically branches off the right coronary artery. In about 90% of individuals, this RCA-derived supply perfuses the AV node, making that location the most common source. The SA node has its own nodal artery that often comes from the RCA in roughly half to two-thirds of people, with variation, and the inferior LV or RV walls are supplied by other branches depending on coronary dominance. Because the AV nodal artery is most often RCA-derived and provides the AV node's blood supply in about 90% of cases, that option best matches the usual anatomy.

2. In the setting of a VAD with high pump speed, what is a recommended initial step?

A. Ramp down pump speed immediately

B. Increase vasopressor dose

C. Initiate diuretics

D. Gentle fluid resuscitation

When a VAD is set to a high pump speed, the device can pull on the ventricle more than it can fill, creating suction and unstable flow. The best first move is gentle fluid resuscitation to boost preload and improve LVAD filling, which often resolves suction by restoring enough blood to meet the pump's demand. This approach directly addresses inadequate volume status that can accompany high-speed settings. If preload is now adequate but suction or instability persists, you would then consider adjusting the pump speed downward. Other options, such as increasing vasopressors or giving diuretics, tend to worsen preload or volume status and are not the initial step. Ramping down the speed immediately without assessing preload may be necessary later, but the starting step is to improve volume status with careful fluid administration.

3. Which axis category corresponds to a 180º to -90º range?

A. Normal

B. Right Axis Deviation

C. Extreme Axis Deviation

D. Pathologic Left Axis Deviation

The QRS axis in the frontal plane is the average direction of ventricular depolarization, measured from −180° to +180°. Normal is about −30° to +90°. If the axis shifts further left beyond −90°, you're into left-axis territory; when it reaches the far left end toward −180°, that region is called extreme axis deviation (often called the northwest axis). The range from 180° (which equals −180°) down to −90° thus lies in this extreme left-directed category, making Extreme Axis Deviation the best match. The other categories describe less extreme leftward tilt or rightward tilt, so they don't fit this far-left range.

4. Which of the following is NOT listed as a risk factor for aortic dissection?

A. Diabetes mellitus

B. Hypertension

C. Pregnancy

D. Connective tissue disorders

Aortic dissection occurs when the aortic wall is either structurally weakened or subjected to sudden, high wall stress. Diabetes mellitus does not belong to the usual list of risk factors for dissection; in fact, it's not typically associated with this condition and some data suggest it may even have a neutral or protective association. Hypertension is the most common modifiable risk factor because chronic high blood pressure increases shear stress on the aortic wall, promoting an intimal tear and dissection. Pregnancy adds risk due to the cardiovascular changes—higher blood volume and cardiac output, along with hormonal effects—that can strain the aorta, especially in the presence of a dilated or weakened root. Connective tissue disorders, such as Marfan or Ehlers-Danlos syndromes, predispose to dissection through intrinsic weakness of the aortic media, making it prone to tearing under normal or increased stress. So diabetes mellitus is not listed as a risk factor, whereas hypertension, pregnancy, and connective tissue disorders are.

5. Which of the following is a criterion for left bundle branch block?

A. QRS >120 ms

B. Q waves in lateral leads

C. Broad terminal R wave in V1-V3

D. Prolonged PR interval

Left bundle branch block shows delayed activation of the left ventricle, which makes the QRS complex widen. The defining feature is a QRS duration of 120 milliseconds or more, indicating intraventricular conduction delay. Other patterns described aren't used to define LBBB: Q waves in lateral leads aren't a required criterion and are often absent in LBBB; a broad terminal R wave in V1–V3 is more typical of a right bundle branch block pattern; and a prolonged PR interval points to first-degree AV block, not LBBB.

6. Which rhythm is most likely to present with a regular, wide QRS and absent P waves?

A. Monomorphic VT

B. Atrial fibrillation

C. Atrial flutter

D. Sinus tachycardia

Regular, wide QRS complexes with no visible P waves point to ventricular tachycardia, specifically a monomorphic form. When the heartbeat is generated within the ventricles rather than starting in the atria and traveling through the normal conduction system, the QRS complexes become wide because ventricular depolarization spreads slowly through myocardium instead of through the His-Purkinje system. The rhythm tends to be regular because a single ventricular focus or reentrant circuit drives every beat, and AV dissociation is common, which is why P waves may be absent or not related to the QRS complexes. Other rhythms don't fit this pattern: atrial fibrillation produces no discrete P waves and an irregular rhythm, often with a normal or slightly wide QRS but not a consistently wide, regular pattern. Atrial flutter shows sawtooth atrial activity with a more organized atrial rhythm, though the QRS is usually not wide unless there's aberrant conduction. Sinus tachycardia has visible P waves and a normal-to-narrow QRS complex with a rhythm that's usually regular.

7. Which AVRT mechanism is associated with a narrow QRS complex?

A. Orthodromic AVRT

B. Antidromic AVRT

C. Atrial flutter

D. Atrial fibrillation

Orthodromic AVRT is the mechanism where the impulse travels from the atria to the ventricles via the normal AV node–His-Purkinje system and returns to the atria through the accessory pathway. Because the ventricles are activated through the heart's usual conduction system, the QRS complex remains narrow. In antidromic AVRT, the impulse goes down the accessory pathway to the ventricles and back up through the AV node, so ventricular activation is via the accessory pathway and the QRS becomes wide. Atrial flutter and atrial fibrillation are atrial arrhythmias, not AVRT mechanisms, and they don't inherently produce a narrow QRS in the same way orthodromic AVRT does.

8. Valvular Heart Disease is best defined as:

A. Inflammation of the heart muscle.

B. Abnormalities in the heart's valves, such as stenosis or regurgitation, impairing blood flow.

C. Blockage of the coronary arteries.

D. Irregular heart rhythm.

Valvular Heart Disease refers to problems with the heart valves themselves that disrupt the normal one-way flow of blood. When a valve becomes narrowed (stenosis), the opening is smaller, forcing the heart to work harder to push blood through and often reducing forward flow. When a valve leaks (regurgitation), blood flows backward during pumping, which wastes energy and increases the volume load on the chambers. These valve abnormalities impair how efficiently the heart can circulate blood, which is the defining feature of valvular heart disease. Inflammation of the heart muscle is myocarditis, not a valve problem. Blockage of the coronary arteries causes ischemic heart disease, affecting blood supply to the heart muscle. An irregular heart rhythm describes an arrhythmia.

9. Cardiac Output = _____ x _____

A. Stroke Volume x HR

B. Heart Rate x Stroke Volume

C. Blood Volume x Heart Rate

D. Cardiac Output x Afterload

Cardiac output is how much blood the heart pumps per minute. It depends on two things: how much blood is pushed out with each beat (stroke volume) and how many beats occur each minute (heart rate). Multiply them, and you get the flow per minute: CO = SV × HR. For example, with a stroke volume of about 70 mL per beat and a heart rate of about 70 beats per minute, CO is around 5 L/min. Blood volume is the total amount of blood in the system, not the amount pumped each minute, so it doesn't determine CO. Afterload is the pressure the ventricle must overcome to eject blood, not a quantity you multiply by to get CO, and mixing a volume with pressure wouldn't make sense. The two real determinants are stroke volume and heart rate, whose product gives the cardiac output.

10. In post-ROSC care, what is the target mean arterial pressure (MAP)?

A. MAP > 65

B. MAP > 60

C. MAP > 75

D. MAP > 55

After ROSC, protecting the brain from secondary injury hinges on ensuring adequate perfusion. Mean arterial pressure (MAP) is used as a practical target to support cerebral perfusion, especially because autoregulation can be impaired after cardiac arrest. The standard default goal is to keep MAP at least 65 mmHg to maintain sufficient cerebral blood flow without overly increasing afterload. In many patients, this 65–70 mmHg range is effective, though individual factors like chronic hypertension may lead clinicians to tailor targets upward. Targets lower than 65 mmHg risk cerebral hypoperfusion, while a higher target (such as 75) isn't routinely required unless specific patient factors justify it. Therefore, the best answer is MAP > 65.

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://cfmcardiology.examzify.com

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