

# Vital Signs Cardiovascular & Respiratory Systems Practice Test (Sample)

## Study Guide



**Everything you need from our exam experts!**

**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

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

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.

# 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

SAMPLE

- 1. What is the term for the obstruction of a blood vessel, often by a clot?**
  - A. Stenosis**
  - B. Embolism**
  - C. Thrombosis**
  - D. Occlusion**
  
- 2. Which oxygen delivery device typically uses a reservoir bag filled with oxygen?**
  - A. Nasal Cannula**
  - B. Simple Mask**
  - C. Non-Rebreather Mask**
  - D. Oxygen Concentrator**
  
- 3. Which blood vessel carries oxygen-rich blood away from the heart?**
  - A. Vein**
  - B. Artery**
  - C. Capillary**
  - D. Venule**
  
- 4. What is the term for the mucous secretion a person coughs up from the lungs, bronchi, and trachea?**
  - A. Sputum**
  - B. Phlegm**
  - C. Mucosa**
  - D. Exudate**
  
- 5. How is supplemental oxygen typically delivered through a nasal cannula?**
  - A. As a liquid**
  - B. Through plastic tubing into the nose and mouth**
  - C. As a gas through the prongs in the nostrils**
  - D. Through a mask over the face**

- 6. What is the voice box, located at the beginning of the trachea that helps with breathing and digestion?**
- A. Esophagus**
  - B. Larynx**
  - C. Pharynx**
  - D. Trachea**
- 7. Which of the following is true about hypotension?**
- A. It is usually asymptomatic**
  - B. It occurs at readings above 90/60 mmHg**
  - C. It is associated with heart valve disorders**
  - D. It often results in elevated heart rate**
- 8. What device is used to stimulate the heart and regulate its contractions?**
- A. Defibrillator**
  - B. Pacemaker**
  - C. ECG Monitor**
  - D. Stethoscope**
- 9. What is the medical term for low blood pressure, which is 90/60 mmHg or lower?**
- A. Hypotension**
  - B. Hypertension**
  - C. Arrhythmia**
  - D. Tachycardia**
- 10. What term refers to chest pain caused by reduced blood flow to the heart?**
- A. Myocardial Infarction**
  - B. Angina**
  - C. Cardiac Arrest**
  - D. Heartburn**

## Answers

SAMPLE

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

SAMPLE

## **Explanations**

SAMPLE

**1. What is the term for the obstruction of a blood vessel, often by a clot?**

- A. Stenosis
- B. Embolism**
- C. Thrombosis
- D. Occlusion

The term for the obstruction of a blood vessel, often by a clot, is embolism. An embolism specifically refers to a situation where an embolus, which can be a blood clot, air bubble, fat deposit, or other debris, travels through the bloodstream and lodges in a blood vessel, obstructing blood flow. This obstruction can occur in various parts of the body and can lead to serious health complications, such as stroke or pulmonary embolism, depending on the site of the blockage. In contrast, thrombosis refers to the formation of a blood clot within a blood vessel at the site of the vessel itself, which is related but distinct from embolism, as thrombosis describes the process rather than the state of obstruction by a traveling clot. Stenosis refers to the narrowing of a blood vessel, typically due to plaque buildup, which is different from an obstruction caused by a clot. Occlusion generally describes the blockage of a blood vessel but is a broader term that can include both embolism and thrombosis, thus not specifically identifying the traveling aspect of an obstruction.

**2. Which oxygen delivery device typically uses a reservoir bag filled with oxygen?**

- A. Nasal Cannula
- B. Simple Mask
- C. Non-Rebreather Mask**
- D. Oxygen Concentrator

The non-rebreather mask is designed specifically for delivering high concentrations of oxygen. This device typically features a reservoir bag that fills with oxygen, providing a source of supplemental oxygen for the patient. The purpose of the reservoir bag is to ensure that a sufficient amount of oxygen is available for inhalation, allowing the patient to breathe in pure oxygen while minimizing the intake of ambient air. The mask has one-way valves that prevent the exhaled air from re-entering the bag, enabling the patient to receive nearly 100% oxygen during inhalation. In contrast, the other devices mentioned do not utilize a reservoir bag. The nasal cannula delivers oxygen directly into the nostrils but allows room air to mix with the oxygen. The simple mask, while it covers the mouth and nose, does not have a reservoir bag and delivers a lower concentration of oxygen compared to the non-rebreather mask. An oxygen concentrator serves to extract oxygen from ambient air and does not involve a mask or reservoir bag; it provides a continuous flow of oxygen but not in the concentrated manner that a non-rebreather mask does. Thus, the non-rebreather mask is characterized by its use of a reservoir bag, making it the correct answer.

**3. Which blood vessel carries oxygen-rich blood away from the heart?**

- A. Vein**
- B. Artery**
- C. Capillary**
- D. Venule**

The blood vessel that carries oxygen-rich blood away from the heart is an artery. Arteries are specialized blood vessels designed to transport oxygenated blood from the left side of the heart to various tissues and organs throughout the body. This process is crucial for delivering the oxygen required for cellular metabolism and various bodily functions. The structure of arteries, characterized by their thick, elastic walls, allows them to withstand the high pressure of blood being pumped from the heart. They branch off into smaller arterioles and eventually lead to capillaries, where the exchange of oxygen, nutrients, and waste products occurs with surrounding tissues. In contrast, veins are responsible for carrying deoxygenated blood back to the heart, capillaries are the sites of exchange between blood and tissues, and venules are small vessels that gather blood from the capillaries and channel it into veins. Therefore, understanding the unique functions of these blood vessels highlights the critical role arteries play in the circulatory system by distributing oxygen-rich blood throughout the body.

**4. What is the term for the mucous secretion a person coughs up from the lungs, bronchi, and trachea?**

- A. Sputum**
- B. Phlegm**
- C. Mucosa**
- D. Exudate**

The term for the mucous secretion that a person coughs up from the lungs, bronchi, and trachea is sputum. Sputum is specifically derived from the respiratory tract and can contain a mixture of mucus, debris, and cells, often produced in response to infection or inflammation. It is commonly evaluated in clinical settings to assess respiratory health and diagnose conditions such as pneumonia, bronchitis, or tuberculosis. The presence and characteristics of sputum, including its color, consistency, and volume, can provide valuable information about the underlying health issues a patient may be experiencing.

**5. How is supplemental oxygen typically delivered through a nasal cannula?**

- A. As a liquid**
- B. Through plastic tubing into the nose and mouth**
- C. As a gas through the prongs in the nostrils**
- D. Through a mask over the face**

Supplemental oxygen is typically delivered through a nasal cannula as a gas through the prongs that fit directly into the nostrils. This method allows for a continuous flow of oxygen that the patient can inhale while still being able to talk, eat, or perform other activities without much interference. The design of the nasal cannula, with its two small prongs, ensures that oxygen is comfortably and efficiently administered directly to the respiratory system, facilitating better oxygenation for individuals who are experiencing difficulty in breathing or who need additional oxygen to maintain adequate levels in their blood. Other methods, such as delivering oxygen as a liquid, would not be practical or safe for respiratory therapy in this form. Similarly, using a mask or alternative delivery systems, while effective in certain settings, is not the standard mechanism for administering oxygen via nasal cannula. The nasal cannula is specifically catered to provide oxygen therapy efficiently and discreetly, largely contributing to its widespread use in both clinical and home settings.

**6. What is the voice box, located at the beginning of the trachea that helps with breathing and digestion?**

- A. Esophagus**
- B. Larynx**
- C. Pharynx**
- D. Trachea**

The voice box, known as the larynx, is positioned at the beginning of the trachea and plays a crucial role in both respiration and voice production. It is a significant structure in the respiratory system, composed of cartilage and muscle, which houses the vocal cords. The larynx not only facilitates the passage of air to and from the lungs during breathing but also provides the necessary anatomical features for phonation—transforming airflow into sound. Additionally, the larynx serves as a gateway that prevents food and liquids from entering the trachea during swallowing. It accomplishes this through a protective reflex mechanism, which ensures that the epiglottis covers the opening of the larynx when swallowing. This function is essential for both respiratory health and proper digestion, as it helps prevent aspiration. Understanding the function and location of the larynx is critical in the context of overall respiratory and vocal health, distinguishing it clearly from other structures like the esophagus, pharynx, and trachea, which serve different roles. The esophagus is primarily for food transport, the pharynx serves as a passage for both air and food but does not produce sound, and the trachea is a conduit for air directly to the

**7. Which of the following is true about hypotension?**

- A. It is usually asymptomatic**
- B. It occurs at readings above 90/60 mmHg**
- C. It is associated with heart valve disorders**
- D. It often results in elevated heart rate**

Hypotension, defined as abnormally low blood pressure, often manifests without any noticeable symptoms, particularly in its mild forms. Many individuals with low blood pressure may not experience any adverse effects and might lead normal daily activities without feeling unwell. This characteristic is significant because it emphasizes how vital it is to monitor blood pressure in individuals, even when they report feeling fine. The other options present misconceptions regarding hypotension. Blood pressure readings above 90/60 mmHg are generally considered within the normal range, meaning option B does not accurately describe hypotension. While certain heart valve disorders can affect blood pressure, they are not specifically associated with hypotension as a defining characteristic, which makes option C less relevant. Lastly, while some individuals with hypotension might have a compensatory increase in heart rate, this is not a definitive result of low blood pressure and does not apply universally; therefore, option D does not hold true for all cases of hypotension. Understanding these nuances is crucial in evaluating blood pressure's role in overall health.

**8. What device is used to stimulate the heart and regulate its contractions?**

- A. Defibrillator**
- B. Pacemaker**
- C. ECG Monitor**
- D. Stethoscope**

A pacemaker is a medical device designed to stimulate the heart and regulate its contractions. It achieves this by sending electrical impulses to the heart muscle, helping to maintain a normal rhythm in individuals whose hearts beat too slowly or irregularly. It's especially beneficial for patients with conditions such as bradycardia, where the heart does not pump enough blood due to a slow heart rate. In contrast, a defibrillator is primarily used for delivering a high-energy shock to the heart in cases of life-threatening arrhythmias, such as ventricular fibrillation. An ECG monitor provides a visual representation of the heart's electrical activity, allowing healthcare professionals to diagnose various conditions but does not actively regulate heart contractions. A stethoscope is an instrument used to listen to the sounds made by the heart, lungs, and other organs, providing crucial information about their function but also lacking any capability to stimulate heart contractions.

**9. What is the medical term for low blood pressure, which is 90/60 mmHg or lower?**

- A. Hypotension**
- B. Hypertension**
- C. Arrhythmia**
- D. Tachycardia**

The medical term for low blood pressure, defined as a blood pressure reading of 90/60 mmHg or lower, is hypotension. This condition indicates that the force of blood against the walls of the arteries is too low, which can lead to symptoms such as dizziness, fainting, and in severe cases, shock. Understanding hypotension is critical, particularly in clinical settings where maintaining adequate blood flow and perfusion to vital organs is essential for patient health. In contrast, hypertension refers to high blood pressure, indicating a completely different medical condition characterized by increased force that could lead to complications if left untreated. Arrhythmia describes irregular heartbeats and involves the heart's rhythm rather than blood pressure levels. Tachycardia refers to an elevated heart rate, which can occur for various reasons but does not directly relate to blood pressure measurements. Thus, hypotension is the only term among the options that accurately describes the condition of low blood pressure.

**10. What term refers to chest pain caused by reduced blood flow to the heart?**

- A. Myocardial Infarction**
- B. Angina**
- C. Cardiac Arrest**
- D. Heartburn**

The term that refers to chest pain caused by reduced blood flow to the heart is angina. Angina is characterized by the discomfort that occurs when the heart muscle does not receive enough oxygen-rich blood. This condition often presents as pressure, squeezing, or discomfort in the chest, and it is commonly triggered by physical exertion, stress, or certain activities that elevate the heart's demand for oxygen. In contrast, myocardial infarction refers to a heart attack, which is the result of a prolonged lack of blood flow that leads to damage to the heart muscle. Cardiac arrest describes a sudden loss of heart function, while heartburn (gastroesophageal reflux disease) is a digestive issue unrelated to heart conditions, although it can cause similar sensations of chest pain. Understanding these distinctions is crucial in recognizing and responding to cardiovascular symptoms accurately.

## 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://vitalsignscardiorespiratorysys.examzify.com>**

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

SAMPLE