

NBRC REGISTERED RESPIRATORY THERAPIST (RRT) EXIT PRACTICE EXAM (SAMPLE) STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE**

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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	15

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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. Which ECG finding is most associated with a myocardial infarction?**
 - A. Depressed T waves
 - B. Elevated ST segment
 - C. Normal QRS
 - D. Significant Q waves

- 2. Which of the following best describes insensible water loss?**
 - A. Through the skin or exhalation
 - B. Through the urinary tract
 - C. Through vomit only
 - D. Through stool only

- 3. Normal hematocrit range is?**
 - A. 20-30%
 - B. 40-50%
 - C. 50-60%
 - D. 60-70%

- 4. Depressed or inverted T waves indicate?**
 - A. Pulmonary embolism
 - B. Myocardial ischemia
 - C. Pericarditis
 - D. Atrial fibrillation

- 5. An ET tube should be positioned how many centimeters above the carina?**
 - A. 0 to 1
 - B. 8 to 12
 - C. 2 to 6 centimeters above the carina
 - D. 12 to 15

- 6. Band neutrophils increase during which condition?**
 - A. Viral infection
 - B. Dehydration
 - C. Bacterial infection
 - D. Allergic reaction

- 7. The lateral decubitus radiograph is most helpful for diagnosing which condition?**
- A. Pneumothorax
 - B. Cardiac enlargement
 - C. Pleural effusion
 - D. Mediastinal shift
- 8. Which respiration pattern involves gradually increasing then decreasing rate and depth with periods of apnea?**
- A. Cheyne-Stokes respirations
 - B. Biot's respirations
 - C. Kussmaul respirations
 - D. Normal breathing
- 9. Which therapy is recommended for patients with elevated central venous pressure (CVP)?**
- A. Vasopressors
 - B. Diuretics
 - C. Volume expanders
 - D. Inotropes
- 10. What is the normal arterial-venous oxygen content difference expressed as percent by volume?**
- A. 2-3 percent by volume
 - B. 4-5 percent by volume
 - C. 6-7 percent by volume
 - D. 8-9 percent by volume

Answers

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

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Explanations

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1. Which ECG finding is most associated with a myocardial infarction?

- A. Depressed T waves
- B. Elevated ST segment
- C. Normal QRS
- D. Significant Q waves**

Pathologic Q waves reflect irreversible myocardial necrosis from an infarction. When tissue dies, the electrical vectors change in a way that produces a deep, wide Q wave in the leads over the affected area. These waves persist as a scar and serve as a lasting marker that an infarct has occurred. While ST-segment elevation signals acute injury and depressed T waves indicate ischemia, they are not the enduring sign of infarction. A normal QRS complex would not fit MI. Therefore, significant Q waves are most closely associated with myocardial infarction.

2. Which of the following best describes insensible water loss?

- A. Through the skin or exhalation**
- B. Through the urinary tract
- C. Through vomit only
- D. Through stool only

Insensible water loss is the water the body loses that you can't perceive or easily measure. The main routes are evaporation from the skin and water vapor lost during respiration (exhaled air). This is why "through the skin or exhalation" is the best description. In contrast, losses through urine, vomiting, or stool are observable or measurable—sensible losses.

3. Normal hematocrit range is?

- A. 20-30%
- B. 40-50%**
- C. 50-60%
- D. 60-70%

Hematocrit is the percentage of blood volume that is occupied by red blood cells, reflecting the red cell mass relative to plasma. In healthy adults, the normal range is about 40–50%, with some variation by sex and by lab reference standards. This makes 40–50% the best choice because values below this band suggest anemia or blood loss, while values above this band point toward dehydration or polycythemia. Values far outside this range (lower around 20–30% or higher around 50–60% and above) are not considered normal for routine reference ranges.

4. Depressed or inverted T waves indicate?

- A. Pulmonary embolism
- B. Myocardial ischemia**
- C. Pericarditis
- D. Atrial fibrillation

Depressed or inverted T waves reflect altered ventricular repolarization due to reduced oxygen supply to the heart muscle. When ischemia affects the myocardium, especially subendocardial tissue, repolarization changes cause the T wave to flatten or invert. This pattern is a classic sign of myocardial ischemia, seen with angina or NSTEMI. Other conditions don't fit this pattern as neatly: pulmonary embolism isn't defined by T wave inversion, pericarditis typically shows diffuse ST elevation with PR depression, and atrial fibrillation is a rhythm issue with absent P waves rather than characteristic T wave changes.

5. An ET tube should be positioned how many centimeters above the carina?

- A. 0 to 1
- B. 8 to 12
- C. 2 to 6 centimeters above the carina**
- D. 12 to 15

Position the endotracheal tube tip a few centimeters above the carina. The carina is where the trachea splits into the main bronchi, so placing the tip about 2 to 6 centimeters above this point keeps both lungs ventilated while staying away from the bronchial entrance. If the tip is too deep, the tube can advance into a mainstem bronchus (often the right), causing unilateral ventilation. If the tip is too high in the trachea (as with 8–12 or 12–15 cm above the carina), the tube is easier to dislodge with movement and may fail to provide stable ventilation. In adults, an approximate depth of about 2–6 centimeters above the carina is the safest and most reliable range.

6. Band neutrophils increase during which condition?

- A. Viral infection
- B. Dehydration
- C. Bacterial infection**
- D. Allergic reaction

Band neutrophils, which are immature neutrophils, rise when the body faces an acute bacterial infection. The bone marrow responds to the bacterial threat by releasing more neutrophils, including bands, into the bloodstream to speed up defense—this is called a left shift. In viral infections, neutrophil counts are typically normal or reduced, with a greater emphasis on other immune cells like lymphocytes. Dehydration is a volume issue and doesn't specifically cause a left shift, and allergic reactions by and large involve eosinophils rather than a prominent increase in immature neutrophils. So the presence of more bands most clearly points to an acute bacterial infection.

7. The lateral decubitus radiograph is most helpful for diagnosing which condition?

- A. Pneumothorax
- B. Cardiac enlargement
- C. Pleural effusion**
- D. Mediastinal shift

In a lateral decubitus view, the patient lies on their side, so gravity causes any pleural fluid to settle to the dependent side. This lets even small amounts of fluid layer out along the dependent lateral chest wall and the posterior costophrenic sulci, creating a visible fluid level or a characteristic meniscus. That layering is the key clue that a pleural effusion is present, and it helps distinguish effusion from other conditions such as atelectasis, which does not produce a reliable fluid level. Pneumothorax can be seen as a pleural line with absent markings beyond it, but the lateral decubitus is not as sensitive for small pneumothoraces as other views. Cardiac enlargement and mediastinal shift are better assessed with standard frontal views and different techniques, rather than relying on the lateral decubitus alone.

8. Which respiration pattern involves gradually increasing then decreasing rate and depth with periods of apnea?

- A. Cheyne-Stokes respirations**
- B. Biot's respirations
- C. Kussmaul respirations
- D. Normal breathing

Cheyne-Stokes respirations are defined by a repeating cycle of progressively increasing and then decreasing breathing effort and tidal volume, followed by a period of apnea. The cycle often lasts 30 seconds to a couple of minutes, with the apneic pauses ranging from a few seconds to nearly a minute. This pattern arises from a delayed or unstable feedback response of the brain's breathing control to CO₂, and it's commonly seen in patients with advanced heart failure, stroke or other brain injuries, and sometimes in dying patients. Because it produces a clear crescendo-decrescendo pattern with pauses, it fits the description you were asked to identify. Biot's respirations, in contrast, are irregular and unpredictable in both rate and depth, with periods of apnea that lack a repeating, orderly rhythm. Kussmaul respirations involve rapid, deep, regular breathing, often seen with metabolic acidosis, and do not feature the cyclical apnea pattern described above. Normal breathing remains regular in rate, depth, and rhythm without apneic pauses.

9. Which therapy is recommended for patients with elevated central venous pressure (CVP)?

- A. Vasopressors
- B. Diuretics**
- C. Volume expanders
- D. Inotropes

Elevated CVP signals venous congestion from excess preload, so the aim is to offload fluid and reduce preload. Diuretics achieve this by increasing urine output, which lowers right atrial pressure and CVP, helping relieve both systemic and pulmonary congestion and improve organ perfusion. If diuretics aren't enough, ultrafiltration can remove fluid more aggressively. Volume expanders add volume and would push CVP higher; vasopressors increase vascular tone and can raise venous return in a way that worsens congestion; inotropes improve contractility but don't directly reduce preload or CVP. So diuretics are the appropriate, first-line choice for elevated CVP.

10. What is the normal arterial-venous oxygen content difference expressed as percent by volume?

- A. 2-3 percent by volume
- B. 4-5 percent by volume**
- C. 6-7 percent by volume
- D. 8-9 percent by volume

This measures how much oxygen tissues extract from the blood, expressed as the arterial-venous O₂ content difference ($C(a-v)O_2$). You subtract the O₂ content in venous blood from the O₂ content in arterial blood—the larger the difference, the more O₂ tissues have taken up. In a healthy person at rest, arterial O₂ content is about 20 ml O₂ per 100 ml of blood, and mixed venous O₂ content is about 15 ml O₂ per 100 ml. The difference is roughly 5 ml O₂ per 100 ml, which translates to about 4–5 percent by volume. This reflects a normal resting oxygen extraction of roughly 25% of the arterial O₂ content. The value can widen with increased metabolic demand (exercise) as tissues extract more O₂, and can narrow if delivery is impaired or extraction is reduced.

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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://nbrcrrtextit.examzify.com>

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

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