

Review of Related Diseases (RRD) 1 Practice Exam (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

Copyright	1
Table of Contents	2
Introduction	3
How to Use This Guide	4
Questions	5
Answers	8
Explanations	10
Next Steps	15

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. Which description best defines pitting edema?**
 - A. Swollen skin that leaves an indentation when pressed.
 - B. Edema that does not indent with pressure.
 - C. Swelling due to increased capillary permeability only.
 - D. Edema with hard, nonpitting surface.
- 2. Which processes act as counterregulatory responses triggering during hypoglycemia to raise glucose?**
 - A. Glycogenolysis and gluconeogenesis.
 - B. Glycolysis and lipogenesis.
 - C. Ketogenesis and protein synthesis.
 - D. Glycogenesis and lipolysis.
- 3. Which of the following are common causes of increased blood osmolality?**
 - A. Adequate intake with regular hydration.
 - B. Excessive water drinking with no electrolyte loss.
 - C. Inadequate intake, vomiting, diarrhea, and increased urination.
 - D. Hyperhydration with low osmolality.
- 4. What does the suffix '-ectomy' mean?**
 - A. Removal of an anatomical part
 - B. Repair of a structure
 - C. Replacement of a part
 - D. Opening of a cavity
- 5. What are the basic states of acid-base balance?**
 - A. Acidosis and alkalosis
 - B. Acids and bases
 - C. Hypoxia and hyperoxia
 - D. Neutral pH state
- 6. How does hyperkalemia contribute to hypopolarization?**
 - A. Increased cations in the blood diffuse into cells, creating a more positive state.
 - B. Decreased potassium moves out of cells making them more negative.
 - C. Hyperkalemia reduces diffusion of cations into cells.
 - D. It causes hyperpolarization by lowering extracellular calcium.

7. The failure of the body's compensatory mechanisms is known as what?

- A. Compensation
- B. Homeostasis
- C. Decompensation
- D. Prognosis

8. Which of the following is NOT listed as a source of free radicals?

- A. Healthy sleep
- B. Aging
- C. Radiation
- D. Alcohol abuse

9. What is respiratory alkalosis?

- A. Alkalosis caused by hypoventilation leading to CO₂ retention.
- B. Acidosis due to lactic acid buildup.
- C. Alkalosis caused by hyperventilation leading to excessive CO₂ exhalation.
- D. Alkalosis due to too much bicarbonate ingestion.

10. What is the maintenance of stable internal conditions in an organism called?

- A. Homeostasis
- B. Compensation
- C. Prognosis
- D. Comorbidity

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Which description best defines pitting edema?

- A. Swollen skin that leaves an indentation when pressed.
- B. Edema that does not indent with pressure.
- C. Swelling due to increased capillary permeability only.
- D. Edema with hard, nonpitting surface.

The sign being tested is how the swelling responds to pressure. Pitting edema is when interstitial fluid is so excess and mobile that pressing on the swollen area with a finger leaves a dent, a pit, that persists briefly after you release. The pit forms because the fluid is displaced by the pressure and then slowly refills as fluid redistributes, so you can still see the indentation for a moment. If there's swelling but no indentation after pressing, that's non-pitting edema, which often comes from firmer, fibrous changes or lymphatic obstruction. Describing edema as due to increased capillary permeability captures a mechanism, not the physical exam sign itself, so it doesn't define pitting edema. A hard, nonpitting surface also points to non-pitting edema rather than the easily indented form.

2. Which processes act as counterregulatory responses triggering during hypoglycemia to raise glucose?

- A. Glycogenolysis and gluconeogenesis.
- B. Glycolysis and lipogenesis.
- C. Ketogenesis and protein synthesis.
- D. Glycogenesis and lipolysis.

During hypoglycemia the body activates counterregulatory signals to restore blood glucose. The liver plays a central role by releasing glucose through glycogenolysis, the rapid breakdown of stored glycogen, and by producing new glucose via gluconeogenesis from non-carbohydrate substrates. Glycogenolysis provides a quick supply of glucose within minutes, while gluconeogenesis sustains glucose levels as glycogen runs low. These responses are driven by hormones like epinephrine and glucagon, with cortisol and growth hormone providing support during longer episodes. In contrast, glycolysis uses glucose to generate energy, lipogenesis stores glucose as fat, and ketogenesis creates ketone bodies for alternative fuel rather than raising blood glucose. Protein synthesis does not directly increase glucose either. So the processes that raise glucose during hypoglycemia are glycogenolysis and gluconeogenesis.

3. Which of the following are common causes of increased blood osmolality?

- A. Adequate intake with regular hydration.
- B. Excessive water drinking with no electrolyte loss.
- C. Inadequate intake, vomiting, diarrhea, and increased urination.
- D. Hyperhydration with low osmolality.

Blood osmolality measures how concentrated the blood is in terms of solutes. It rises when water loss outpaces solute loss or when solutes accumulate, so dehydration is a common cause. Inadequate fluid intake reduces the amount of water available to dilute plasma, while vomiting and diarrhea purge body water (often with electrolytes), concentrating the remaining fluids. Increased urination also removes water, further increasing solute concentration in the blood. That combination is why this option best explains the rise in osmolality. In contrast, adequate hydration keeps osmolality normal; excessive water intake with no electrolyte loss lowers osmolality by diluting solutes, and hyperhydration with low osmolality describes an already diluted state.

4. What does the suffix '-ectomy' mean?

A. Removal of an anatomical part

B. Repair of a structure

C. Replacement of a part

D. Opening of a cavity

The suffix -ectomy designates surgical removal of a part. This is why removal of an anatomical part is the best description, as seen in terms like appendectomy or tonsillectomy. Other suffixes describe different procedures: -plasty for repair or reconstruction, -ostomy or -stomy for creating an opening, and -otomy for cutting into. Replacement isn't conveyed by -ectomy.

5. What are the basic states of acid-base balance?

A. Acidosis and alkalosis

B. Acids and bases

C. Hypoxia and hyperoxia

D. Neutral pH state

In acid-base balance, the body keeps the blood pH within a narrow range, about 7.35 to 7.45. When this balance shifts, the basic states are acidosis and alkalosis. Acidosis means the pH is below normal, and it can arise from respiratory causes (excess CO₂ from inadequate ventilation) or metabolic causes (loss of bicarbonate or buildup of acids). Alkalosis means the pH is above normal, and it can occur from respiratory reasons (too little CO₂ from overexcessive breathing) or metabolic reasons (gain of bicarbonate or loss of acids). The other options refer to things that aren't the defining states of acid-base balance—acids and bases are chemical substances, hypoxia/hyperoxia concern oxygen levels, and a neutral pH state isn't a designated clinical state.

6. How does hyperkalemia contribute to hypopolarization?

A. Increased cations in the blood diffuse into cells, creating a more positive state.

B. Decreased potassium moves out of cells making them more negative.

C. Hyperkalemia reduces diffusion of cations into cells.

D. It causes hyperpolarization by lowering extracellular calcium.

Hyperkalemia raises the amount of positive charge outside the cell, which shifts the resting membrane potential toward a less negative value (hypopolarization). The resting potential is largely set by potassium's gradient across the membrane; when outside potassium is higher, the driving force for K⁺ to leave the cell diminishes. With reduced K⁺ efflux, the interior retains more positive charge, so the membrane potential becomes less negative and depolarized. In practical terms, the increased extracellular cations effectively diffuse toward or accumulate inside, creating a more positive intracellular environment. Other descriptions that imply the opposite direction of movement or a different ion's effect don't explain this shift in the membrane potential caused by elevated extracellular potassium.

7. The failure of the body's compensatory mechanisms is known as what?

- A. Compensation
- B. Homeostasis
- C. Decompensation**
- D. Prognosis

Decompensation occurs when the body's usual adaptive responses to stress no longer can maintain adequate function. When a problem disrupts balance, the body first activates compensatory mechanisms—things like increasing heart rate and contractility, constricting blood vessels to preserve blood pressure, and engaging hormonal systems to boost volume and perfusion. If the underlying issue persists or worsens, these defenses can become overwhelmed, and function decays instead of being preserved. That breakdown marks decompensation, with signs of impaired perfusion and organ dysfunction as the body can't compensate enough to meet the body's needs. By contrast, compensation refers to those adaptive adjustments, homeostasis is the normal steady state the body tries to uphold, and prognosis is simply the predicted outcome of the illness.

8. Which of the following is NOT listed as a source of free radicals?

- A. Healthy sleep**
- B. Aging
- C. Radiation
- D. Alcohol abuse

The main idea here is understanding what drives the production of free radicals versus what helps protect against them. Free radicals arise from processes that increase oxidative stress, such as aging, exposure to radiation, and the metabolic effects of alcohol, all of which elevate reactive oxygen species in the body. Healthy sleep, on the other hand, supports the body's antioxidant defenses and reduces oxidative stress; good sleep helps clear metabolites and lowers baseline reactive oxygen species. So healthy sleep is not a source of free radicals—it's protective—while aging, radiation, and alcohol abuse are well-established sources.

9. What is respiratory alkalosis?

- A. Alkalosis caused by hypoventilation leading to CO₂ retention.
- B. Acidosis due to lactic acid buildup.
- C. Alkalosis caused by hyperventilation leading to excessive CO₂ exhalation.**
- D. Alkalosis due to too much bicarbonate ingestion.

Respiratory alkalosis happens when you breathe faster or deeper than necessary, blowing off too much carbon dioxide. When CO₂ drops, the carbonic acid balance shifts and hydrogen ion concentration falls, raising the pH. That makes the blood more alkaline, and the problem is driven by the respiratory system's excessive ventilation, i.e., hyperventilation leading to too much CO₂ loss. The body can compensate by the kidneys reducing bicarbonate reabsorption to help bring pH back toward normal. This isn't caused by hypoventilation (that would raise CO₂ and cause respiratory acidosis), nor is it due to lactic acid buildup (metabolic acidosis) or bicarbonate ingestion (metabolic alkalosis).

10. What is the maintenance of stable internal conditions in an organism called?

- A. Homeostasis**
- B. Compensation
- C. Prognosis
- D. Comorbidity

Maintaining stable internal conditions in an organism is called homeostasis. It involves sensing changes in the body's internal environment, comparing them to a set point, and triggering responses that bring variables—like temperature, pH, glucose, and fluid balance—back to normal. This balancing act relies on feedback mechanisms, mainly negative feedback, to keep the body's internal state within narrow, healthy ranges. For example, when body temperature rises, mechanisms such as sweating and increased blood flow to the skin help cool the body back to the set point. When blood glucose climbs after a meal, insulin helps lower it toward normal levels. The other terms describe different ideas: compensation refers to adjustments to improve function after a disturbance but isn't the general process of keeping internal conditions steady; prognosis is about predicting disease outcomes; comorbidity means having more than one disease at the same time. So, homeostasis is the appropriate term.

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://rrd1.examzify.com>

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

SAMPLE