

VTNE LABORATORY PROCEDURES PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE

<https://vtnelabprocedures.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	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. Urine sediment: which statement is true?

- A. Specific gravity is not part of urinalysis
- B. A few hyaline casts may be seen in normal urine
- C. Eosinophils are never seen in urine
- D. Urine sediment evaluation is rarely used

2. Which description best defines pollakiuria?

- A. Frequent urination with small volume voided
- B. Complete lack of urine production
- C. Excessive urination at night
- D. Excessive drinking and urinating

3. Infection of this parasite via skin penetration.

- A. *Trichuris vulpis*
- B. *Taenia pisiformis*
- C. *Dipylidium caninum*
- D. *Strongyloides stercoralis*

4. Which immunoglobulin is most abundant in the serum and plays the major role in humoral immunity?

- A. IgM
- B. IgG
- C. IgD
- D. IgA

5. All of the following cells are produced in the bone marrow, except which one?

- A. Erythrocytes
- B. Eosinophils
- C. Neutrophils
- D. Lymphocytes

- 6. What anticoagulant is used to determine activated partial thromboplastin time and one-stage prothrombin time?**
- A. Heparin
 - B. Citrate
 - C. Fluoride
 - D. EDTA
- 7. The presence of protein in the urine may indicate**
- A. Diabetes mellitus
 - B. Kidney disease
 - C. Acid-base imbalance
 - D. Hemolytic anemia
- 8. Which sign is associated with allergies?**
- A. Face rubbing
 - B. Ear problems
 - C. Loss of appetite
 - D. Skin rashes
- 9. The two most common problems encountered in samples to be evaluated for clinical chemistry are:**
- A. Coagulation and separation
 - B. Dilution and concentration
 - C. EDTA and heparin
 - D. Hemolysis and Lipemia
- 10. Calcium carbonate crystals are often seen in which species?**
- A. Horse
 - B. Dog
 - C. Cat
 - D. Cattle

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Urine sediment: which statement is true?

- A. Specific gravity is not part of urinalysis
- B. A few hyaline casts may be seen in normal urine**
- C. Eosinophils are never seen in urine
- D. Urine sediment evaluation is rarely used

In urine sediment analysis, small numbers of hyaline casts can be a normal finding. They're simple cylinders made mainly of Tamm-Horsfall protein and may appear in healthy urine, especially after exercise or dehydration. This makes the statement true. Specific gravity is a standard part of urinalysis because it helps interpret the concentration of the urine and contextualize other findings, so saying it's not part of urinalysis is inaccurate. Eosinophils can appear in urine in certain conditions, such as drug-induced interstitial nephritis, so claiming they are never seen is incorrect. Urine sediment evaluation is a routine, not rare, part of urinalysis used to detect casts, cells, crystals, and other elements.

2. Which description best defines pollakiuria?

- A. Frequent urination with small volume voided**
- B. Complete lack of urine production
- C. Excessive urination at night
- D. Excessive drinking and urinating

Pollakiuria means a high frequency of urination with small volumes produced each time. This pattern distinguishes it from polyuria, which involves producing large volumes of urine, and from nocturia, which is urination that occurs mainly at night. It's also not the absence of urine, which would be anuria. In clinical terms, you'd expect to see the patient urinating often, but each void is small in volume, which points to pollakiuria. This can occur with bladder irritation or infection, inflammation, or other local bladder issues that trigger frequent urges without large urine volumes.

3. Infection of this parasite via skin penetration.

- A. Trichuris vulpis
- B. Taenia pisiformis
- C. Dipylidium caninum
- D. Strongyloides stercoralis**

Infections that start through skin penetration are typical of certain nematodes whose infective larvae in soil can bore through the host's skin. Strongyloides stercoralis does this: its infective larvae penetrate the skin, migrate via the bloodstream to the lungs, are coughed up and swallowed, and then mature in the intestines. This route is distinctive from other parasites listed, which are acquired by ingesting eggs or cysticerci in intermediate hosts or contaminated sources rather than through the skin.

4. Which immunoglobulin is most abundant in the serum and plays the major role in humoral immunity?

- A. IgM
- B. IgG**
- C. IgD
- D. IgA

IgG is the most abundant antibody in the bloodstream and carries the major workload of humoral immunity. In circulation it makes up the largest proportion of serum antibodies, providing widespread defense throughout the body's fluids and tissues. Its monomer form lets it diffuse easily into extracellular spaces, and after a mature immune response it undergoes class-switching and affinity maturation, yielding high-affinity antibodies with a relatively long half-life. In practice, IgG neutralizes toxins and viruses, opsonizes bacteria to promote phagocytosis, and activates the classical complement pathway, all of which are central to clearing extracellular pathogens. Other immunoglobulins have specialized roles and locations—IgM is great at early defense and complement activation but is less abundant long-term; IgA is the main antibody in secretions; IgD is largely a B-cell receptor with limited serum presence. Because of its abundance and versatile effector functions in the serum, IgG is the principal player in systemic humoral immunity.

5. All of the following cells are produced in the bone marrow, except which one?

- A. Erythrocytes
- B. Eosinophils
- C. Neutrophils
- D. Lymphocytes**

The main idea is that bone marrow is the production site for most blood cells, with different lineages doing their maturation there. Erythrocytes (RBCs) come from the erythroid lineage in the marrow, while neutrophils and eosinophils come from the myeloid lineage and complete their development there as well. Lymphocytes, however, come from the lymphoid lineage and mature primarily in other lymphoid tissues—the thymus for T cells and lymph nodes/spleen for B cells (and NK cells). Because their mature development occurs outside the bone marrow, lymphocytes are not produced in the bone marrow in the same sense as the other three options. So the best answer is the lymphocytes.

6. What anticoagulant is used to determine activated partial thromboplastin time and one-stage prothrombin time?

- A. Heparin
- B. Citrate**
- C. Fluoride
- D. EDTA

Coagulation tests like APTT and PT require plasma that hasn't started to clot. An anticoagulant that does this job by preventing clot formation without permanently blocking the clotting factors is citrate. Sodium citrate binds calcium, stopping the cascade in the tube. When the test is run, calcium is then added back and the clotting reagents are used to measure the time to clot. That's why citrate is the standard choice for these assays. Other options either act as anticoagulants in a way that would interfere with the test (heparin) or are intended for other tests (EDTA for cell counts; fluoride-oxalate for glucose) and would not yield accurate PT or APTT results.

7. The presence of protein in the urine may indicate

- A. Diabetes mellitus
- B. Kidney disease**
- C. Acid-base imbalance
- D. Hemolytic anemia

Protein in the urine, or proteinuria, indicates the kidneys aren't filtering properly. Healthy kidneys retain most protein in the bloodstream, so its presence in urine points to a problem with the renal filtration units, i.e., kidney disease or glomerular damage. Diabetes mellitus can lead to kidney damage over time and thus cause proteinuria, but the finding itself most directly signals kidney disease rather than diagnosing diabetes. Acid-base imbalance is assessed mainly by blood tests for pH, bicarbonate, and electrolytes, not by urine protein. Hemolytic anemia involves red blood cell destruction and related issues, not a primary explanation for protein in the urine.

8. Which sign is associated with allergies?

- A. Face rubbing
- B. Ear problems
- C. Loss of appetite**
- D. Skin rashes

Allergies in pets most often present with itching and inflammatory changes in the skin and ears. You'll commonly see the animal rubbing or scratching the face, which signals itchiness from dermatitis. Ear problems, such as redness, discharge, or head shaking, are also frequent because the ears are a common site of allergic inflammation. Skin rashes or hair loss from dermatitis can accompany these signs. Appetite loss is not a typical or reliable indicator of allergic disease, even though an animal may eat less if it feels unwell or uncomfortable for other reasons. So the signs most closely tied to allergies are face rubbing, ear problems, and skin rashes.

9. The two most common problems encountered in samples to be evaluated for clinical chemistry are:

- A. Coagulation and separation
- B. Dilution and concentration
- C. EDTA and heparin
- D. Hemolysis and Lipemia**

Hemolysis and lipemia are the most impactful preanalytic problems in clinical chemistry because they directly disturb the sample in ways that many tests rely on. Hemolysis occurs when red blood cells break open, releasing hemoglobin and intracellular ions and enzymes into the serum or plasma. This can falsely raise substances like potassium and certain enzymes, and it also changes the sample's color, which interferes with color-based assays. Lipemia, the presence of excess lipids, makes the sample appear milky and cloudy. That turbidity scatters light and can bias spectrophotometric measurements and other assays, leading to inaccurate results across a wide range of tests. While other issues—such as clotting problems or the use of certain anticoagulants—can affect specific tests, they don't broadly compromise as many chemistry results as hemolysis and lipemia do. To reduce these problems, ensure proper venipuncture technique and gentle handling to minimize hemolysis, and obtain fasting samples when lipemia is likely, or apply appropriate methods if a lipemic sample must be tested.

10. Calcium carbonate crystals are often seen in which species?

A. Horse

B. Dog

C. Cat

D. Cattle

Calcium carbonate crystals in urine form when urine is saturated with calcium and carbonate and the pH favors precipitation. Horses routinely have alkaline, calcium-rich urine due to their forage-based diets, so these crystals are frequently observed in healthy equine urine sediment. In dogs and cats, other crystals (like calcium oxalate or struvite) are more typical, and calcium carbonate crystals are not as commonly seen; cattle rarely show them. That combination makes the horse the most likely species to exhibit calcium carbonate crystals in standard findings.

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://vtnelabprocedures.examzify.com>

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

SAMPLE