

Massachusetts Soil Evaluator 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

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 horizon is the topsoil and typically ranges from 3 to 10 inches thick?**
 - A. E horizon**
 - B. B horizon**
 - C. A horizon**
 - D. R horizon**

- 2. Which statement best describes what a percolation test measures?**
 - A. It measures soil density**
 - B. It measures absorption rate**
 - C. It measures soil color**
 - D. It measures soil mineralogy**

- 3. Which of the following is not a soil size class?**
 - A. Very fine**
 - B. Very coarse**
 - C. Medium**
 - D. Structureless**

- 4. Which statement about phosphorus behavior in very acidic soils is true?**
 - A. Phosphate remains highly soluble**
 - B. Phosphate forms insoluble compounds with aluminum and iron**
 - C. Phosphate volatilizes into gas**
 - D. Phosphate is absent**

- 5. In septic effluent, phosphorus is in which form?**
 - A. Colloidal phosphate**
 - B. Solid phosphate**
 - C. Gaseous phosphate**
 - D. Dissolved orthophosphate**

- 6. What are rock fragments?**
- A. Particles smaller than 0.002 mm**
 - B. Particles larger than 2 mm, such as gravel, cobbles, stones, and boulders**
 - C. Particles between 0.05 and 0.25 mm**
 - D. Particles between 0.25 and 0.5 mm**
- 7. What are the associated landforms for ice contact outwash?**
- A. Kames**
 - B. Outwash plain**
 - C. Kettle lakes**
 - D. Eskers**
- 8. What is the problem with observing redox features in sandy soils?**
- A. They are easily visible**
 - B. They are faint and difficult to observe**
 - C. They do not occur**
 - D. They are always bright red**
- 9. What is the size of medium sand?**
- A. 0.25-0.1 mm**
 - B. 1-0.5 mm**
 - C. .5-.25 mm**
 - D. 2-1 mm**
- 10. What is the size range for very coarse sand?**
- A. 1-.5 mm**
 - B. .5-.25 mm**
 - C. 0.25-0.1 mm**
 - D. 2-1 mm**

Answers

SAMPLE

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

SAMPLE

Explanations

SAMPLE

1. Which horizon is the topsoil and typically ranges from 3 to 10 inches thick?

- A. E horizon**
- B. B horizon**
- C. A horizon**
- D. R horizon**

The layer known as the A horizon is the surface mineral layer that contains most of the soil's organic matter and roots. It typically ranges from about 3 to 10 inches thick and is usually darker in color because of humus, signaling rich biological activity and good plant support. This is the layer plants primarily interact with, where most root activity occurs and nutrients are readily available to vegetation. In soils that have an eluviation layer above or below, you might see an E horizon as a lighter, leached zone, but the topsoil itself is defined by the A horizon. The B horizon lies below it and is the subsoil where materials like clay accumulate, and the R horizon is the bedrock layer.

2. Which statement best describes what a percolation test measures?

- A. It measures soil density**
- B. It measures absorption rate**
- C. It measures soil color**
- D. It measures soil mineralogy**

Water movement through soil is what the percolation test assesses. It measures how fast water can move downward through the soil, effectively the absorption or percolation rate. This rate is crucial for septic system design because soils that percolate slowly require more area to treat effluent, while soils that percolate quickly need less area. The test does not evaluate soil density, color, or mineralogy, which are determined by other tests or observations.

3. Which of the following is not a soil size class?

- A. Very fine**
- B. Very coarse**
- C. Medium**
- D. Structureless**

The main idea here is telling apart particle size classes from soil structure descriptions. Size classes describe how big the soil particles are—terms like very coarse, coarse, medium, and very fine categorize particle diameters and help predict drainage and aeration. Structureless, however, describes how the particles are arranged or whether they form aggregates; it refers to soil structure, not particle size. A structureless soil lacks a distinct arrangement or clumping, which is why it isn't a soil size class. So the term that isn't a size class is structureless.

4. Which statement about phosphorus behavior in very acidic soils is true?

A. Phosphate remains highly soluble

B. Phosphate forms insoluble compounds with aluminum and iron

C. Phosphate volatilizes into gas

D. Phosphate is absent

In very acidic soils, phosphorus tends to become unavailable because it reacts with aluminum and iron to form insoluble compounds. The abundance of H^+ in acidic conditions keeps aluminum and iron in forms (Al^{3+} and Fe^{3+}) that readily bind with phosphate to create aluminum phosphate and iron phosphate precipitates or other fixed solids on oxide surfaces. This fixes phosphorus in a form plants can't easily take up, so the soluble phosphate in the soil drops. That's why the statement about phosphate forming insoluble compounds with aluminum and iron is true. Phosphorus doesn't volatilize as a gas in soils, and it isn't simply absent—the phosphorus is present but largely fixed by these minerals, which is why liming to raise pH or using phosphorus fertilizers that target fixed forms becomes important.

5. In septic effluent, phosphorus is in which form?

A. Colloidal phosphate

B. Solid phosphate

C. Gaseous phosphate

D. Dissolved orthophosphate

In septic effluent, phosphorus is best described as dissolved orthophosphate. In wastewater, phosphorus largely exists as orthophosphate ions that are dissolved in the water, such as $H_2PO_4^-$ and HPO_4^{2-} , depending on the pH. This dissolved form is what remains in the liquid that leaves the tank, while any phosphorus tied up in solids tends to be removed with sludge before the effluent discharges. Gaseous phosphorus isn't a stable form in wastewater under normal conditions, and solid phosphorus would be associated with particulates rather than being present as the dissolved species. Colloidal phosphate can occur, but the dominant form in septic effluent is the dissolved orthophosphate.

6. What are rock fragments?

A. Particles smaller than 0.002 mm

B. Particles larger than 2 mm, such as gravel, cobbles, stones, and boulders

C. Particles between 0.05 and 0.25 mm

D. Particles between 0.25 and 0.5 mm

Rock fragments are the larger pieces of broken rock in soil, defined as anything bigger than 2 millimeters. This category includes gravel, cobbles, stones, and boulders. In soil science, the finer fractions are typically classified as clay (<0.002 mm), silt (0.002-0.05 mm), and sand (0.05-2.0 mm). So rock fragments are the portion that exceeds 2 mm, which is why the description of particles larger than 2 mm best fits. The other options describe much smaller particles that belong to the fine-earth fractions (clay, silt, or sand) rather than rock fragments.

7. What are the associated landforms for ice contact outwash?

- A. Kames
- B. Outwash plain
- C. Kettle lakes
- D. Eskers

Ice-contact outwash creates landforms right where meltwater streams interact with the glacier, depositing sediments in pockets and openings in or along the ice. When sands and gravels are dropped from these streams into crevasses or through contact with melting ice, they accumulate as small, cone-shaped hills called kames. These mounded deposits are characteristic of sedimentation happening in direct contact with ice, so they're a clear telltale sign of ice-contact outwash. Other features form in related but different settings: eskers are long, winding ridges formed by sediment deposited in subglacial channels, extending beyond the ice; outwash plains are broad, braided deposits that spread beyond the glacier terminus; kettle lakes form when blocks of ice buried in outwash melt, leaving depressions that become lakes.

8. What is the problem with observing redox features in sandy soils?

- A. They are easily visible
- B. They are faint and difficult to observe
- C. They do not occur
- D. They are always bright red

Redox features reflect changes in iron chemistry that happen when soils cycle between saturated (reducing) and drained (oxidizing) conditions. In sandy soils, high permeability drains water quickly, so the soil spends less time in reducing conditions and the iron changes don't develop bold, lasting color contrasts. There's also little clay and organic matter to fix and preserve reduced or oxidized iron in place, so any mottling tends to be faint and sporadic. That combination makes redox features in sands hard to see, which is why the best answer describes them as faint and difficult to observe. In finer, poorly drained soils, redox features are typically more pronounced because conditions stay moist long enough to produce clearer color patterns.

9. What is the size of medium sand?

- A. 0.25-0.1 mm
- B. 1-0.5 mm
- C. .5-.25 mm
- D. 2-1 mm

Medium sand refers to soil particles that are mid-sized within the sand fraction, specifically 0.5 to 0.25 millimeters in diameter. In soil texture terminology, sand is broken into very coarse, coarse, medium, fine, and very fine categories, each defined by a range of particle sizes. This mid-range size is larger than the fine and very fine sand fractions but smaller than coarse sands, which is why it's labeled as medium sand. Knowing this range helps anticipate how the soil behaves: generally faster drainage and lower water-holding capacity than finer sands, with enough pore space to support air and root growth.

10. What is the size range for very coarse sand?

- A. 1-.5 mm
- B. .5-.25 mm
- C. 0.25-0.1 mm
- D. 2-1 mm**

Very coarse sand refers to the largest sand grains in standard size classifications. In these classifications, very coarse sand spans from about 2.0 mm down to 1.0 mm in diameter. That makes the 2-1 mm range the correct choice. The other ranges describe smaller grain sizes, which would place the material in coarse, medium, or fine sand categories rather than very coarse.

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://massachusettssoileval.examzify.com>

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

SAMPLE