Earthwork Level 2 Practice Exam (Sample)

Study Guide

Everything you need from our exam experts!

Table of Contents

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

1. **How thick should the loose soil layer mix with the 4 inch max layer of RAP?**

   A. 4-6 inches

   B. 8-10 inches

   C. 12-14 inches

   D. 2-3 inches

2. **In the Initial Equipment Comparison, what value is compared?**

   A. Field density

   B. Proctor density

   C. Moisture content

   D. Calculated dry density

3. **Is the LBR value affected by moisture at the time of compaction?**

   A. Yes

   B. No

   C. Depends on soil type

   D. Not enough data

4. **In subsoil excavation, the excavation and disposal of muck, clay, rock, or any other material that is unsuitable in what position?**

   A. Its original position

   B. In its current position

   C. In a new position

   D. In front of the structure

5. **What is the maximum particle size permitted below 24 inches in an embankment?**

   A. Not to exceed 6 inches or compacted thickness of the layer, whichever is less

   B. Not to exceed 12 inches or compacted thickness of the layer, whichever is less

   C. Not to exceed 18 inches

   D. Not to exceed 24 inches

6. For pipe lines placed above the natural ground line, the embankment should be constructed at what minimum width prior to excavating the trench?

A. 2 times the pipe diameter

B. 3 times the pipe diameter

C. 4 times the pipe diameter

D. 5 times the pipe diameter

7. Minimum density after compaction expressed as percent of FM 1 T-180?

A. 97%

B. 98%

C. 95%

D. 100%

8. Which zone is directly beneath the pipe?

A. Bedding Zone

B. Cover Zone

C. Soil Envelope

D. Lowest Zone

9. No clearing and grubbing within how many feet of a right-of-way?

A. 3 feet

B. 5 feet

C. 10 feet

D. 0 feet

10. To prepare for soil slope, what needs to be removed?

A. All existing vegetation and all unsuitable foundation materials

B. All existing vegetation only

C. All unsuitable foundation materials only

D. None

Answers

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

Explanations

1. How thick should the loose soil layer mix with the 4 inch max layer of RAP?

A. 4-6 inches

B. 8-10 inches

C. 12-14 inches

D. 2-3 inches

Mixing efficiency and a uniform finished base come from using a substantial amount of soil with the RAP. When you have a 4-inch maximum lift of RAP, you need enough loose soil to be adequately blended with it so the asphalt binder in the RAP can coat and merge with the soil particles, creating a consistent, stable base after compaction. An 8–10-inch depth of loose soil provides enough volume for the mixing equipment to effectively shear and blend the materials, resulting in a homogeneous stabilized layer. Too shallow a soil layer (4–6 inches or 2–3 inches) risks incomplete mixing and pockets of RAP, while a much deeper layer (12–14 inches) is unnecessary and harder to compact properly. So, 8–10 inches is the recommended depth.

2. In the Initial Equipment Comparison, what value is compared?

A. Field density

B. Proctor density

C. Moisture content

D. Calculated dry density

When evaluating how well different compaction machines perform, you want a metric that normalizes the effect of moisture so you can compare actual compacted solid material. That metric is dry density. In the field you measure the wet (field) density and the moisture content, and you compute the dry density by dividing the field density by (1 plus the moisture content, with moisture as a decimal). This calculated dry density lets you compare performance across equipment and conditions on a consistent basis, since it represents the mass of solids per unit volume independent of how much water is present. This is why the calculated dry density is used in the Initial Equipment Comparison—it directly reflects how effectively the equipment densifies the soil, factoring out moisture. Field density alone can mislead because higher moisture can raise or lower the wet density without indicating true compaction of solids. Moisture content by itself doesn't show how dense the compacted solids are, and Proctor density is a lab target, not a field performance metric.

3. Is the LBR value affected by moisture at the time of compaction?

A. Yes

B. No

C. Depends on soil type

D. Not enough data

Moisture during compaction changes how densely the soil can pack and how its particles arrange themselves. The LBR value is a measure of the compacted soil's bearing-like resistance, which strongly depends on the density and structure created by the compaction process. When moisture content is near the optimum, particles rearrange efficiently, packing more tightly and producing a higher LBR. If the soil is too dry, compaction is less effective and the LBR tends to be lower; if it's too wet, excess water reduces inter-particle friction and the structure can loosen, also lowering the LBR. Because the moisture at the time of compaction directly alters the achieved density and soil fabric, the LBR value is affected by it.

4. In subsoil excavation, the excavation and disposal of muck, clay, rock, or any other material that is unsuitable in what position?

A. Its original position

B. In its current position

C. In a new position

D. In front of the structure

The main idea is that materials unsuitable for supporting the planned subgrade—muck, clay, rock, and similar waste—must be removed from the excavation and disposed of so they do not become part of the backfill or the finished subgrade. Keeping this material in its original position (i.e., not using it as fill or placing it in the area where the structure will be built) helps preserve the intended bearing capacity and drainage of the subsoil. Moving or placing the unsuitable material in other positions would risk weakening the foundation area or contaminating the good soil, which is why disposing of it in its original position is the correct approach.

5. What is the maximum particle size permitted below 24 inches in an embankment?

A. Not to exceed 6 inches or compacted thickness of the layer, whichever is less

B. Not to exceed 12 inches or compacted thickness of the layer, whichever is less

C. Not to exceed 18 inches

D. Not to exceed 24 inches

In embankment fills, controlling how large the particles can be in a layer is key to getting stable, well-compacted material. If a layer is placed below a depth of 24 inches, the largest particle size must be limited to ensure the material can be spread and compacted evenly, avoiding bridging and voids that would weaken the fill. The rule means: pick the smaller of the layer's compacted thickness or 12 inches. If the layer is thicker than 12 inches, you cap the particle size at 12 inches. If the layer is thinner than 12 inches, you cap it at the actual layer thickness. This guarantees that the material can be properly compacted with standard equipment and creates a uniform, stable embankment. Therefore, the permitted maximum particle size is not to exceed 12 inches or the compacted thickness of the layer, whichever is less.

6. For pipe lines placed above the natural ground line, the embankment should be constructed at what minimum width prior to excavating the trench?

A. 2 times the pipe diameter

B. 3 times the pipe diameter

C. 4 times the pipe diameter

D. 5 times the pipe diameter

When a pipe line sits above the natural ground, you need a wide, stable work area before you start digging the trench. Constructing an embankment first helps by distributing loads, keeping soil from falling into the trench, and providing room for bedding, backfill, and the equipment you'll use during installation. The minimum width is four times the pipe diameter because that creates two side benches, each about two pipe diameters wide, giving enough space for safe excavation, proper pipe placement, and backfilling while keeping the trench sides stable. If the width were smaller, there wouldn't be enough working space or lateral support; wider than four times the diameter isn't necessary for this standard practice.

7. Minimum density after compaction expressed as percent of FM 1 T-180?

A. 97%

B. 98%

C. 95%

D. 100%

The main idea is relative compaction: field density is compared to the maximum dry density obtained from the FM 1-T 180 lab test, and the result is expressed as a percentage. This tells you how dense the compacted soil is relative to its lab-determined capacity. For this item, the required minimum is 98% of the FM 1-T 180 maximum dry density. That means the in-situ density must be at least 0.98 times the lab maximum to meet specs. Using a field test (like a nuclear gauge) you measure the field dry density and compare it to the FM 1-T 180 maximum; if it's at least 98%, the compaction requirement is satisfied. The other numbers would imply looser or unrealistic targets for this particular specification. In short, 98% is the threshold chosen to ensure sufficient bearing capacity and reduced settlement.

8. Which zone is directly beneath the pipe?

A. Bedding Zone

B. Cover Zone

C. Soil Envelope

D. Lowest Zone

Direct support under a buried pipe comes from the bedding zone. This layer sits immediately beneath the pipe and provides a uniform, stable bearing surface, typically a clean, granular material like sand, to spread loads into the trench bottom and prevent point loads from irregular soil. This helps keep the pipe in proper grade and alignment as backfill is added and as settlement occurs. The cover zone is the material placed above the pipe to fill and protect it, while the soil envelope refers to the surrounding soil around the installation rather than the layer directly under the pipe. The term lowest zone isn't a standard designation for the under-pipe layer.

9. No clearing and grubbing within how many feet of a right-of-way?

A. 3 feet

B. 5 feet

C. 10 feet

D. 0 feet

Clearing and grubbing near the right-of-way is restricted to protect the edge of the ROW, maintain soil and slope stability, and avoid disturbing adjacent utilities or drainage paths. A small buffer is used to prevent unnecessary disturbance while still allowing work to proceed inside the project area. The three-foot limit provides a minimal, safe margin: it reduces the risk of destabilizing the immediate boundary and helps prevent work from encroaching on sensitive edge conditions. A zero-foot allowance would let crews clear right at the boundary, increasing risk to the ROW and adjacent features; a larger buffer like five or ten feet would unnecessarily constrain operations and raise costs without adding proportional benefit. Therefore, three feet is the established minimum.

10. To prepare for soil slope, what needs to be removed?

A. All existing vegetation and all unsuitable foundation materials

B. All existing vegetation only

C. All unsuitable foundation materials only

D. None

The key idea is that slope preparation requires a clean, stable base. You remove anything that could weaken or disrupt the slope: vegetation and any materials that aren't suitable for supporting it. Vegetation is cleared because roots can penetrate and loosen soil, organic matter can decay and create weak zones, and surface moisture from plants can affect drainage and compaction. A clean surface also allows accurate inspection and proper compaction of the fill that will form the slope. At the same time, any unsuitable foundation materials beneath the surface need to be removed or replaced. Materials that are soft, unstable, or otherwise inappropriate can lead to settlement, slips, or differential stability in the slope. Removing them and replacing with suitable fill gives a solid, uniform base. So, both vegetation and unsuitable foundation materials must be removed to prepare a slope properly. The other options miss one of these essential steps.

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://earthworklevel2.examzify.com

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