

NCCER INTRODUCTION TO EARTHMOVING (22201) PRACTICE TEST (SAMPLE) STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

**VISIT US ONLINE FOR
THE FULL VERSION STUDY GUIDE**

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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. What do sump pits collect and remove from a construction site?**
 - A. Groundwater
 - B. Surface runoff
 - C. Rainwater
 - D. Sewage
- 2. How is the design cut/fill line used to plan earthwork?**
 - A. To estimate total project duration.
 - B. To locate underground utilities.
 - C. To identify finished elevations and where earth must be cut or filled to meet the design.
 - D. To determine personal protective equipment required.
- 3. What term is used for the plan-derived surface level that the project aims to achieve?**
 - A. Slope
 - B. Cross slope
 - C. Grade
 - D. Benchmarks
- 4. When loading material with a scraper, what is essential for maintaining the correct balance?**
 - A. Maintaining engine speed at full throttle
 - B. Controlling the depth of cut and haul loads to balance loading and tailgate angle.
 - C. Keeping the scraper blade always fully engaged
 - D. Ignoring tailgate angle
- 5. The roadway area between the shoulder/hinge point and the bottom of the adjacent ditch or natural grade is called the _____.**
 - A. Foreslope
 - B. Backslope
 - C. Grade
 - D. Slope

6. An open excavation that usually does not require shoring is classified as a _____.
- A. Pit
 - B. Trench
 - C. Shaft
 - D. Quarry
7. Which of the following is not a factor in determining the number of soil compaction passes required?
- A. Amount of compaction required
 - B. Final layer thickness
 - C. Initial soil density
 - D. Moisture content
8. How do bulldozers and graders differ in their primary earthmoving roles?
- A. Bulldozers finish surfaces; graders push material.
 - B. Bulldozers dig trenches; graders plant trees.
 - C. Bulldozers push and move material with a blade; graders shape and finish surfaces to meet precise elevations and slopes.
 - D. They have identical roles.
9. Which term describes machines that excavate by dragging a bucket toward the machine by a cable?
- A. Gradation
 - B. Spoils
 - C. Draglines
 - D. Crystalline
10. Loose pieces of rock placed on an embankment to prevent erosion are called?
- A. Spoils
 - B. Riprap
 - C. Draglines
 - D. Consolidation

Answers

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

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Explanations

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1. What do sump pits collect and remove from a construction site?

- A. Groundwater**
- B. Surface runoff
- C. Rainwater
- D. Sewage

Sump pits are used to handle groundwater. They're placed at the lowest point of an excavation so water that seeps through the surrounding soil into the trench collects in the pit. A pump then removes that water, keeping the work area dry and reducing pressure on the walls. Surface runoff and rainwater are typically managed by surface drainage systems, not by sump pits, and sewage is unrelated to this dewatering purpose. So the water sump pits remove is groundwater.

2. How is the design cut/fill line used to plan earthwork?

- A. To estimate total project duration.
- B. To locate underground utilities.
- C. To identify finished elevations and where earth must be cut or filled to meet the design.**
- D. To determine personal protective equipment required.

The design cut/fill line shows the finished surface elevations you must achieve. By comparing this line to the existing ground, you can see exactly where the earth must be cut (removed) and where it must be filled (added) to meet the design. This is what guides how much earthwork is needed in each area, helps you calculate cut and fill quantities, and informs the sequencing, equipment needs, and material balance for the project. It isn't used to estimate project duration, locate underground utilities, or determine PPE—those come from other plans and site assessments. The cut/fill line focuses on finishing elevations and how much earth must move to reach them.

3. What term is used for the plan-derived surface level that the project aims to achieve?

- A. Slope
- B. Cross slope
- C. Grade**
- D. Benchmarks

The plan-derived surface level is the finish grade. This term refers to the target elevations and contours shown in the design that the project aims to achieve across the site. Finish grade sets the exact surface the earthmoving work should create, guiding excavation, fill, and compaction to meet the design intent. Understanding the other terms helps: slope describes how steeply the surface rises or falls along a direction, not the exact finished surface itself; cross slope is the sideways tilt across the surface, important for drainage but not the target elevation; benchmarks are fixed reference points with known elevations used to verify and control grading, not the surface level the plan specifies.

4. When loading material with a scraper, what is essential for maintaining the correct balance?

- A. Maintaining engine speed at full throttle
- B. Controlling the depth of cut and haul loads to balance loading and tailgate angle.**
- C. Keeping the scraper blade always fully engaged
- D. Ignoring tailgate angle

Balancing a scraper during loading comes from controlling how much material you scoop and how much you haul at a time. By adjusting the depth of cut and the haul load, you keep the weight distributed properly and the tailgate at the correct angle. This balance ensures good traction on the drive wheels, stable handling, and efficient loading and dumping. Relying on full throttle won't guarantee balance and wastes fuel, keeping the blade always engaged isn't necessary or safe, and ignoring the tailgate angle leads to an unstable, poorly loaded machine.

5. The roadway area between the shoulder/hinge point and the bottom of the adjacent ditch or natural grade is called the _____.

- A. Foreslope**
- B. Backslope
- C. Grade
- D. Slope

The main term being tested is the specific road-slope area in front of the roadway. This space, from the edge of the shoulder down to the bottom of the ditch or natural grade, is called the foreslope. It forms the face of the cut or fill on the approach side and helps manage drainage and stability around the roadway. The other terms don't fit this particular zone: a backslope is the slope on the backside of the road, toward the cut face or hillside behind the roadway; grade refers to the level or finished ground line itself, not the sloped face in front of the ditch; and slope is too generic a word for this specific roadway feature.

6. An open excavation that usually does not require shoring is classified as a _____.

- A. Pit**
- B. Trench
- C. Shaft
- D. Quarry

Open excavations are described by their shape and depth. When an excavation is narrow and deep, the side walls are prone to collapse, so protective measures like shoring, shielding, or proper sloping are required. A pit, by contrast, is an open and broader excavation that is usually shallow, so it typically doesn't require shoring. This is why it's classified as a pit. The other types represent different conditions: a shaft is a vertical or near-vertical opening used for access and usually needs protective systems; a trench is a long, narrow excavation that depth makes it necessary to shore or shield the walls; a quarry is a large-scale excavation for extracting stone or ore and involves different safety considerations.

7. Which of the following is not a factor in determining the number of soil compaction passes required?

- A. Amount of compaction required
- B. Final layer thickness
- C. Initial soil density**
- D. Moisture content

In soil compaction, the plan for how many passes to make centers on reaching a target density efficiently. The key factors are how much compaction you need to achieve (the required density relative to dry density), how thick each lift will be (final layer thickness), and the moisture content, which greatly affects how well the soil compacts and how many passes are needed to reach the target. The initial density you start with isn't used to set the number of passes. It's your goal density, the lift thickness, and the moisture conditions that drive how many passes you'll run to arrive at the desired compaction across the area. If the moisture is near optimum and the lift is appropriately sized, you may achieve the target with fewer passes; if moisture is off or the lift is thicker, more passes may be required.

8. How do bulldozers and graders differ in their primary earthmoving roles?

- A. Bulldozers finish surfaces; graders push material.
- B. Bulldozers dig trenches; graders plant trees.
- C. Bulldozers push and move material with a blade; graders shape and finish surfaces to meet precise elevations and slopes.**
- D. They have identical roles.

Bulldozers and graders serve different stages of earthmoving: bulldozers move large amounts of material quickly using a front blade, while graders shape and finish surfaces to exact elevations and slopes. The bulldozer pushes soil, rock, or debris to clear areas, rough-grade a site, or push material into piles. The grader, with its long adjustable blade, is used to fine-tune the surface, removing highs and filling lows to meet precise grade specifications and create smooth, drivable surfaces with the correct slope for drainage. In practice, bulldozers handle bulk moving and initial shaping, and graders handle precision finishing.

9. Which term describes machines that excavate by dragging a bucket toward the machine by a cable?

- A. Gradation
- B. Spoils
- C. Draglines**
- D. Crystalline

Draglines are the machines that excavate by dragging a bucket toward the machine with a cable. The bucket is hung from a long boom and connected to a drag cable; when the operator tightens or releases the drag line, the bucket is pulled toward the machine, filling it as it moves. This dragging action lets the machine scoop up loose material and lift it away with relatively little ground disturbance, which is why draglines are favored for large-scale overburden removal and dredging projects. The other terms don't describe a machine type for excavation: gradation refers to the size distribution of the material, spoils denotes the excavated material (often waste), and crystalline relates to crystal structure.

10. Loose pieces of rock placed on an embankment to prevent erosion are called?

A. Spoils

B. Riprap

C. Draglines

D. Consolidation

Protecting an embankment from erosion is achieved by placing loose rock that acts as a barrier to slow and dissipate the energy of flowing water. This is called riprap. The stones are large and angular so they interlock and stay in place on the slope, creating a rough surface that reduces soil loss at the base. Riprap is commonly used on riverbanks, shorelines, and around outfalls where water or wave action can erode the soil. Spoils refer to excavated material removed from a site, not a protective rock layer. Draglines are the excavation machines used to move earth, and consolidation means compacting or stabilizing soil—not the protective rock cover. So the correct term for the protective rock layer is riprap.

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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://nccerintrotoearthmoving.examzify.com>

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

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