

# Confluence Survey Resources Fundamentals of Surveying (FS) Practice Test (Sample)

## Study Guide



**Everything you need from our exam experts!**

**This is a sample study guide. To access the full version with hundreds of questions,**

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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. Don't worry about getting everything right, 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, and take breaks to retain information better.**

## 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.**

## 7. Use Other Tools

**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!**

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## **Questions**

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- 1. In surveying, what does the Precision Ratio measure?**
  - A. The distance between two survey points.**
  - B. The ratio of linear error of closure to perimeter distance.**
  - C. The time taken to complete a survey.**
  - D. The number of points plotted in a survey.**
- 2. What aspect makes retracement surveys distinct from original surveys?**
  - A. They are conducted using different equipment**
  - B. They involve a detailed review of previous surveys**
  - C. They ascertain previously established boundaries rather than creating new ones**
  - D. They are only performed by government surveyors**
- 3. What is an Arithmetic Check in differential leveling?**
  - A. A method of checking the total area surveyed**
  - B. A verification of the sums of backsights and foresights**
  - C. A calculation to verify the lengths of field measurements**
  - D. An assessment of the number of instruments used**
- 4. What are leveling rods used with in surveying?**
  - A. GPS devices**
  - B. Theodolites**
  - C. Surveyor's levels**
  - D. Invar tapes**
- 5. What is the role of positive guidelines in GLO retracements?**
  - A. They complicate the survey process**
  - B. They provide a structured approach to defining boundaries**
  - C. They are less reliable than in other surveying methods**
  - D. They help in creating new legal documents**

**6. What is a parabolic curve primarily used for in surveying?**

- A. A gradual change between two adjacent grade lines**
- B. A method to check line of sight**
- C. A tool for establishing a 90-degree angle**
- D. A survey of existing terrain conditions**

**7. Which computing technique is useful for finding the area of irregular boundaries?**

- A. Simpson's One-Third Rule**
- B. Trapezoidal Rule**
- C. Monte Carlo Method**
- D. Newman's Method**

**8. What is a monument in surveying?**

- A. A temporary survey marker**
- B. A permanent reference point for positioning**
- C. A tool for measuring distances**
- D. A record of survey results**

**9. What is the significance of a surveyor's documentation?**

- A. It serves as a personal record for the surveyor**
- B. It is the basis for future legal disputes**
- C. It will always be accepted in court without question**
- D. It can be discarded once the survey is completed**

**10. What is the value of an uncalled-for monument set after a parcel is conveyed?**

- A. An unmentioned monument has a high value for determining the location**
- B. An unmentioned monument generally has no value for determining the written deed's location**
- C. The monument can replace the original boundary markers**
- D. The monument proves ownership of the property**

## **Answers**

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

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## **Explanations**

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## 1. In surveying, what does the Precision Ratio measure?

- A. The distance between two survey points.
- B. The ratio of linear error of closure to perimeter distance.**
- C. The time taken to complete a survey.
- D. The number of points plotted in a survey.

The Precision Ratio is an important concept in surveying that assesses the accuracy of a survey's measurements by comparing the linear error of closure to the perimeter distance of the survey. This ratio provides insight into how reliable and precise the survey data is, which is crucial for ensuring that the results are trustworthy. A lower Precision Ratio indicates that the survey is precise, as it means that the error is small relative to the overall size of the survey area. This measurement helps surveyors evaluate the quality of their work and make necessary adjustments or improvements if the ratio is too high. The other options, while they relate to different aspects of surveying, do not accurately describe the Precision Ratio. Rather than measuring distance between points, completion time, or the quantity of plotted points, the Precision Ratio specifically focuses on the relationship between error and the survey's dimensions, making it a key indicator of survey reliability.

## 2. What aspect makes retracement surveys distinct from original surveys?

- A. They are conducted using different equipment
- B. They involve a detailed review of previous surveys
- C. They ascertain previously established boundaries rather than creating new ones**
- D. They are only performed by government surveyors

Retracement surveys are distinctive primarily because they focus on ascertaining previously established boundaries rather than creating new ones. This type of survey is conducted when there is a need to confirm or re-establish the property lines or boundaries that have already been defined in earlier surveys. The process typically involves the use of existing survey records, historical data, and monuments left from original surveys to ensure the accuracy of the established boundary. This characteristic is paramount because it highlights the purpose of retracement surveys: to validate and reaffirm existing information rather than collect new data or establish new boundaries. This contrasts significantly with original surveys, which are aimed at defining new boundaries and laying out properties that have not been previously surveyed. While other aspects, such as the equipment used or the involvement of government surveyors, might vary, they do not uniquely define retracement surveys. The essence of a retracement survey lies in its connection to prior surveys and its goal of reaffirming established parameters.

### 3. What is an Arithmetic Check in differential leveling?

- A. A method of checking the total area surveyed
- B. A verification of the sums of backsights and foresights**
- C. A calculation to verify the lengths of field measurements
- D. An assessment of the number of instruments used

An arithmetic check in differential leveling involves the verification of the sums of backsights and foresights. This process is crucial for ensuring that the leveling data collected is accurate and reliable. In differential leveling, backsights are readings taken from a level instrument to a known benchmark or point of elevation, while foresights are measurements taken to determine the height of the instrument relative to a point of interest. By totaling the backsights and foresights, surveyors can confirm that their calculations are consistent with the expected differences in elevation. The sum of the backsights should equal the sum of the foresights plus the change in elevation from the benchmark, allowing surveyors to identify any discrepancies that could indicate errors in measurement or data entry. This arithmetic check is an essential part of data validation in the leveling process, ensuring that the elevations calculated from the various points surveyed are accurate and can be trusted for further analysis and application.

### 4. What are leveling rods used with in surveying?

- A. GPS devices
- B. Theodolites
- C. Surveyor's levels**
- D. Invar tapes

Leveling rods, also known as leveling staffs, are specifically designed to work in conjunction with surveyor's levels. In surveying, they serve as a reference point for measuring elevations and differences in height between various points on the ground. When using a surveyor's level, the surveyor sights the leveling rod through the instrument; as the bubble level indicates when the instrument is level, readings can be taken directly from the rod. This collaboration allows surveyors to establish a precise horizontal plane from which vertical measurements can be accurately determined. Therefore, the relationship between leveling rods and surveyor's levels is fundamental to the process of leveling, which is a key aspect of surveying that ensures accuracy in height measurements. The other tools mentioned, like GPS devices and theodolites, serve different purposes in surveying and may be used for horizontal measurements, angles, or global positioning, but they do not function in the same direct way with leveling rods as surveyor's levels do. Invar tapes are used for measuring distances but do not relate to height measurements in the same context as leveling rods and levels.

## 5. What is the role of positive guidelines in GLO retracements?

- A. They complicate the survey process**
- B. They provide a structured approach to defining boundaries**
- C. They are less reliable than in other surveying methods**
- D. They help in creating new legal documents**

The role of positive guidelines in General Land Office (GLO) retracements is to provide a structured approach to defining boundaries. In the context of land surveying, especially when retracing prior surveys, it is crucial to maintain consistency and adherence to established procedures. Positive guidelines serve as a framework that helps surveyors accurately recreate original survey boundaries, which are often tied to historical data and documents. This structured approach minimizes ambiguity and increases the reliability of boundary definitions, ultimately ensuring that surveys can be replicated and understood clearly by all stakeholders involved. By following these guidelines, surveyors can make informed decisions about property boundaries, maintaining legal integrity and accuracy in the survey process. This is particularly important when resolving disputes over land ownership or when conducting new surveys based on previous work.

## 6. What is a parabolic curve primarily used for in surveying?

- A. A gradual change between two adjacent grade lines**
- B. A method to check line of sight**
- C. A tool for establishing a 90-degree angle**
- D. A survey of existing terrain conditions**

A parabolic curve is primarily used in surveying to create a gradual transition between two adjacent grade lines, which is essential for ensuring smooth changes in elevation or alignment where the road or path changes direction. This is particularly important in the design of roads and railways, as parabolic curves help to minimize abrupt changes in slope, preventing sudden accelerations or decelerations that can be dangerous for vehicles and improve overall safety and comfort for users. Unlike other options, like checking line of sight or establishing a 90-degree angle, which pertain to different surveying principles and techniques, the use of a parabolic curve focuses on the geometry of alignment and elevation changes in transportation design. The survey of existing terrain conditions relates more to the assessment of the land rather than the construction or engineering design, which is where the parabolic curve plays a crucial role.

**7. Which computing technique is useful for finding the area of irregular boundaries?**

**A. Simpson's One-Third Rule**

**B. Trapezoidal Rule**

**C. Monte Carlo Method**

**D. Newman's Method**

The Simpson's One-Third Rule is a numerical method that is particularly effective for estimating the area under a curve, which can be valuable when dealing with irregular boundaries. This technique breaks the area into smaller segments and fits parabolic arcs instead of straight-line approximations, making it more accurate for curves. The rule requires that the number of intervals be even, allowing it to utilize the properties of quadratic polynomials to provide good approximations even in cases where the geometry is complex. This method is especially useful in surveying when calculating areas that do not conform to standard geometric shapes. When applied correctly, Simpson's One-Third Rule gives results that are generally closer to the true area than simpler techniques, especially for curves that would be misrepresented by linear methods. Other methods like the Trapezoidal Rule are less precise for irregular shapes since they approximate areas using trapezoids, which may not capture the curvature effectively. The Monte Carlo Method is more suited for probabilistic simulations rather than direct area calculations, and Newman's Method, while useful in some contexts, does not specifically address the challenge of calculating areas of irregular shapes in the same way that the Simpson's One-Third Rule does.

**8. What is a monument in surveying?**

**A. A temporary survey marker**

**B. A permanent reference point for positioning**

**C. A tool for measuring distances**

**D. A record of survey results**

A monument in surveying is recognized as a permanent reference point for positioning. This is crucial in the field of surveying because it serves as a stable, fixed point that can be used for geometric calculations and establishing boundaries. Monuments can be made from concrete, metal, or other durable materials, ensuring they withstand environmental conditions and remain accurate over time. Their permanence allows surveyors to use them as benchmarks for future surveys, ensuring consistency and reliability in the measurements taken. Using monuments enhances the accuracy of the surveying process and provides a trusted reference for re-establishing lost or unclear property lines. This stability is essential in maintaining the integrity of land surveys and legal descriptions of property boundaries, which can be vital for property ownership and land development.

## 9. What is the significance of a surveyor's documentation?

- A. It serves as a personal record for the surveyor
- B. It is the basis for future legal disputes**
- C. It will always be accepted in court without question
- D. It can be discarded once the survey is completed

The significance of a surveyor's documentation lies primarily in its role as the basis for future legal disputes. When surveying land, the collected data and resulting documents represent essential evidence of the land's boundaries and characteristics at a given time. This documentation can be crucial in resolving legal issues related to property disputes, ownership claims, easements, or encroachments. Having accurate and thorough records is vital as they can be presented in court to substantiate claims or defenses regarding property rights. Because property law can often involve contentious disputes, the robustness of a surveyor's documentation provides a layer of protection for all parties involved and can influence legal outcomes significantly. In contrast, while a surveyor's documentation may serve as a record for the surveyor personally, this is not its primary significance. Additionally, the assumption that such documentation will always be accepted in court without question is misleading, as the court evaluates the quality and accuracy of the evidence presented. Lastly, discarding documentation post-survey is risky, as unforeseen disputes could arise later, necessitating those records for resolution.

## 10. What is the value of an uncalled-for monument set after a parcel is conveyed?

- A. An unmentioned monument has a high value for determining the location
- B. An unmentioned monument generally has no value for determining the written deed's location**
- C. The monument can replace the original boundary markers
- D. The monument proves ownership of the property

The value of an uncalled-for monument, meaning one that is not referenced in the deed or property description, is that it generally has no value for determining the location of the property as described in the written deed. This is because property boundaries are typically established by the descriptions provided in legal documents. When a monument is uncalled-for, it lacks legal standing in that context and cannot be used to contest or redefine the original intent expressed in the deed. Therefore, while the monument may exist on-site and could serve as a point of reference, it does not have legal value in terms of establishing or confirming boundaries as intended in the official documentation. In a legal sense, monuments are typically considered beneficial when they are explicitly called for in property surveys or deeds. If a monument is not mentioned in these documents, it cannot be relied upon to establish or redefine property boundaries, which underscores its general lack of value in boundary determination when referenced against the legal agreement.

# 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](mailto:hello@examzify.com).**

**Or visit your dedicated course page for more study tools and resources:**

**<https://confluencesurveyresourcesfs.examzify.com>**

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

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