

# NOCTI Horticulture Practice Test (Sample)

## Study Guide



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

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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. In horticultural sales, the most important knowledge area for advising customers on product choices is**
  - A. Store policies**
  - B. Cash handling procedures**
  - C. Products and services**
  - D. Sales tax compliance**
  
- 2. Among the following, which is the ornamental biennial?**
  - A. Marigold**
  - B. Begonia**
  - C. Zinnia**
  - D. Hollyhock**
  
- 3. What term describes a temperature-induced water injury caused by sun exposure?**
  - A. Sunscald**
  - B. Translocation**
  - C. Root Rot**
  - D. Scarification**
  
- 4. Advanced technology in horticulture equipment includes?**
  - A. Shovel, rake, and wheelbarrow**
  - B. Tractor, weed-wacker, and lawn mower**
  - C. Hydroponic nutrient monitor**
  - D. Computerized greenhouse systems, and ebb and flow benching**
  
- 5. The term transpiration refers to water loss from a plant through which structure?**
  - A. Stoma**
  - B. Chlorophyll**
  - C. Pistols**
  - D. Cambium**

- 6. Plants that produce foliage in the first year, flowers in the second year, and then die are called which growth category?**
- A. Annuals**
  - B. Biennials**
  - C. Triennials**
  - D. Perennials**
- 7. Which root system is commonly found in grasses and many lawn species?**
- A. Fibrous**
  - B. Tap**
  - C. Adventitious**
  - D. Propagative**
- 8. The three layers of a normal soil profile are ?**
- A. Topsoil, subsoil, and bedrock**
  - B. Root zone, tap soil, bedrock**
  - C. Sand, silt, clay**
  - D. Topsoil, subsoil, and root zone**
- 9. If a plant sells for \$1.50 and the business uses a 20% profit margin, what is the wholesale cost?**
- A. \$1.25**
  - B. \$1.20**
  - C. \$1.30**
  - D. \$1.35**
- 10. Which practice helps reduce soil erosion?**
- A. Over-watering**
  - B. Plowing continuously**
  - C. Mulching and cover cropping**
  - D. Applying lime heavily**

## Answers

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

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## **Explanations**

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**1. In horticultural sales, the most important knowledge area for advising customers on product choices is**

- A. Store policies**
- B. Cash handling procedures**
- C. Products and services**
- D. Sales tax compliance**

Knowing about the products and services offered is what truly empowers you to guide a customer to the right purchase. When you understand the details of each plant, variety, soil amendment, container, tool, or irrigation option—including growth habits, sun and water needs, zone hardiness, mature size, spacing, and maintenance requirements—you can tailor recommendations to a customer’s specific site conditions, budget, and lifestyle. You can explain not only which plant fits best, but also what ongoing care it will require, how to fertilize or amend soil, and what service options are available, such as installation, landscaping design, or plant care services. This depth of knowledge builds trust and helps the customer feel confident in their choice. Operational areas like store policies, cash handling procedures, and sales tax compliance are important for smooth transactions, but they don’t directly inform which product best meets a customer’s needs. They support the buying process rather than the advisement of product choices.

**2. Among the following, which is the ornamental biennial?**

- A. Marigold**
- B. Begonia**
- C. Zinnia**
- D. Hollyhock**

Biennials complete their life cycle in two years, typically forming foliage in the first year and flowering in the second before dying. Hollyhock fits this pattern: in its first year it grows a leafy base, then in the second year sends up tall flowering stems with many blooms, ending its life after the flowers fade. By contrast, marigold and zinnia are usually grown as annuals, completing their life cycle in one growing season, and begonia is generally treated as an annual in temperate areas (though some tropical varieties can be perennials).

**3. What term describes a temperature-induced water injury caused by sun exposure?**

- A. Sunscald**
- B. Translocation**
- C. Root Rot**
- D. Scarification**

Sunscald describes tissue injury that happens when a plant surface is heated by sun and the rapid temperature change causes cellular damage due to water movement within the tissue. This often occurs on sun-exposed areas like thin-barked trunks, exposed fruit skins, or uncovered branches, especially after cold spells or during bright, hot conditions. The affected spots look pale or sunburned, and can become corky or crack as the tissue heals. This term specifically captures damage from sun exposure and temperature effects, unlike translocation (the movement of substances within the plant), root rot (a disease caused by soil pathogens), or scarification (a seed dormancy-breaking treatment). To prevent sunscald, protect exposed surfaces with shading, trunk wrapping, or reflective coatings, and aim for steady moisture to reduce stress on the tissue.

**4. Advanced technology in horticulture equipment includes?**

- A. Shovel, rake, and wheelbarrow**
- B. Tractor, weed-wacker, and lawn mower**
- C. Hydroponic nutrient monitor**
- D. Computerized greenhouse systems, and ebb and flow benching**

Modern horticulture relies on sensor-based technology to optimize plant nutrition and growing conditions. A hydroponic nutrient monitor exemplifies this advanced equipment because it continuously measures nutrient levels, pH, and often conductivity in the solution, and can be linked to controllers that adjust feeds automatically. This kind of device brings precision and automation to nutrient management, which is at the heart of high-tech growing systems like hydroponics. The other options reflect more traditional or general equipment. Shovels, rakes, and wheelbarrows are manual tools and not technology-driven. A tractor, weed-wacker, and lawn mower are productive machines but not focused on advanced nutrient control. While computerized greenhouse systems and ebb-and-flow benches are indeed sophisticated, the nutrient monitor specifically demonstrates automated, measurement-based management of the essential inputs that plants need, making it the clearest example of advanced technology in horticulture equipment.

**5. The term transpiration refers to water loss from a plant through which structure?**

- A. Stoma**
- B. Chlorophyll**
- C. Pistols**
- D. Cambium**

Transpiration is the loss of water vapor from a plant, and it occurs mainly through the stomata—tiny openings on the leaf surface that regulate gas exchange. When stomata are open, water vapor can diffuse out of the leaf as carbon dioxide comes in for photosynthesis and oxygen exits. This pore system is what drives most water loss because it directly connects the leaf interior to the atmosphere. Chlorophyll is the pigment involved in capturing light for photosynthesis, not a pathway for water escape. Pistils are reproductive parts of flowers, and cambium is a growth tissue that produces new vascular tissue—neither is a route for water loss. So, the structure responsible for transpiration is the stomata.

**6. Plants that produce foliage in the first year, flowers in the second year, and then die are called which growth category?**

- A. Annuals**
- B. Biennials**
- C. Triennials**
- D. Perennials**

Two-year life cycles define this growth pattern: a plant spends the first year producing foliage and storing energy, then in the second year it flowers and sets seed before dying. This is why these plants are called biennials. An example would be a carrot or parsley plant, which rosette and store energy in year one and then bolt and bloom in year two before dying. This differs from annuals, which complete their life cycle in one year; perennials, which live for many years and can flower repeatedly; and triennials, which take three years to reach flowering.

**7. Which root system is commonly found in grasses and many lawn species?**

- A. Fibrous**
- B. Tap**
- C. Adventitious**
- D. Propagative**

Grasses and lawn species form a fibrous root system, which is made up of many thin roots that grow outward from the crown and branch repeatedly. This creates a dense, shallow network that quickly takes up water and nutrients from the topsoil and helps stabilize the turf. A tap root, by contrast, is a single thick primary root with smaller side roots, which is common in many dicot plants. Adventitious roots can arise from stems or other non-root tissues, but the defining feature for grasses remains the many fine roots forming a fibrous system. Propagative describes how a plant spreads, not its root structure. So the fibrous root system best describes grasses and lawn species.

**8. The three layers of a normal soil profile are ?**

**A. Topsoil, subsoil, and bedrock**

**B. Root zone, top soil, bedrock**

**C. Sand, silt, clay**

**D. Topsoil, subsoil, and root zone**

Understanding a soil profile means looking at how soil forms in layers from the surface downward. The surface layer, topsoil, holds most of the organic matter and nutrients that plants need. Beneath it is the subsoil, which contains minerals that have leached down from above and typically has less organic material. At the bottom sits bedrock, the solid rock that weathering slowly breaks down to form soil over time. So, the three main layers in a typical soil profile are topsoil, subsoil, and bedrock. The root zone describes where roots grow rather than a distinct layer, and sand, silt, and clay refer to particle sizes, not layers of the profile.

**9. If a plant sells for \$1.50 and the business uses a 20% profit margin, what is the wholesale cost?**

**A. \$1.25**

**B. \$1.20**

**C. \$1.30**

**D. \$1.35**

Understanding whether the 20% profit margin is a markup on wholesale cost or a margin on the selling price is what this question hinges on. If the profit is 20% of the wholesale cost, then selling price equals cost plus 20% of cost, i.e.,  $\text{cost} \times 1.20$ . With a selling price of 1.50, the wholesale cost is  $1.50 \div 1.20 = 1.25$ . So the wholesale cost is 1.25. This distinction matters because treating the 20% as a percentage of the selling price would yield  $1.50 \times 0.80 = 1.20$  for cost, which is different. In this context, a markup on cost gives 1.25 as the correct cost.

**10. Which practice helps reduce soil erosion?**

**A. Over-watering**

**B. Plowing continuously**

**C. Mulching and cover cropping**

**D. Applying lime heavily**

Protecting the soil surface from rain and wind is the main idea here, and mulching and cover cropping do this most effectively. A layer of mulch on the soil slows down raindrop impact, reduces surface runoff, helps retain moisture, and protects soil structure, while living cover crops keep the soil in place with their roots and add organic matter that improves infiltration and stability. Together, they minimize soil displacement during storms and over time. The other practices don't provide that protective surface cover or root binding: over-watering can increase runoff and erosion risk when water can't infiltrate, continuous plowing disturbs the soil and removes residues that protect against erosion, and applying lime adjusts soil pH rather than directly reducing erosion.

## 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://noctihorticulture.examzify.com>**

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

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