

# 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. According to EPA guidelines pesticides should always be stored in \_\_ containers**
  - A. Metal**
  - B. Plastic**
  - C. Glass**
  - D. Original**
  
- 2. The leaf is attached to the stem on the area known as the Node.**
  - A. Xylem**
  - B. Sepal**
  - C. Cambium**
  - D. Node**
  
- 3. What term describes an irrigation system that applies water directly to the root zone?**
  - A. Misting System**
  - B. Drip Irrigation**
  - C. Overhead Sprinklers**
  - D. Flood Irrigation**
  
- 4. If an item costs \$5.00, adding 50% for profit and 10% markup on total cost results in what final price?**
  - A. \$10.00**
  - B. \$8.25**
  - C. \$11.00**
  - D. \$8.00**
  
- 5. Cover crops help conserve nitrogen in the soil.**
  - A. Potash**
  - B. CO<sub>2</sub>**
  - C. Heat**
  - D. Nitrogen**

- 6. Which advertisement medium reaches the largest audience in horticulture?**
- A. Television**
  - B. Newspaper**
  - C. Magazine**
  - D. Word of mouth**
- 7. The amount of light a plant needs to stimulate flower bud formation is known as**
- A. High intensity discharge lighting**
  - B. Photoperiod**
  - C. Incandescent lighting**
  - D. Day length**
- 8. Which plant from the following is a flowering herbaceous perennial?**
- A. Ageratum**
  - B. Zinnia**
  - C. Marigold**
  - D. Daylily**
- 9. Scarification is used to achieve what effect on seeds?**
- A. Hydration**
  - B. Stratification**
  - C. Gestation**
  - D. Scarification**
- 10. Which plant reproductive structure is typically an above-ground runner?**
- A. Root buds**
  - B. Stolons**
  - C. Rhizomes**
  - D. Suckers**

## Answers

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

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## **Explanations**

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**1. According to EPA guidelines pesticides should always be stored in \_\_ containers**

- A. Metal
- B. Plastic
- C. Glass
- D. Original**

Pesticides must be kept in containers that preserve the product's identity and safety information. Keeping them in their original containers ensures the label stays attached, which provides the active ingredients, hazard warnings, first aid steps, required PPE, correct storage conditions, and application directions. If a pesticide is transferred to another container, that container may lack labeling or be mistaken for something else, leading to misuse, exposure, or accidental ingestion. The original container is designed to maintain the product's stability and traceability, aligning with EPA storage guidance.

**2. The leaf is attached to the stem on the area known as the Node.**

- A. Xylem
- B. Sepal
- C. Cambium
- D. Node**

Leaves attach to the stem at joints called nodes. Nodes are the points on the stem where a leaf, and often a bud, emerges, making them the specific location of attachment. The stem segments between nodes are called internodes. Xylem is the tissue that moves water and minerals through the plant, running inside the stem but not describing the attachment point. Sepals are part of a flower that protect the bud, not the leaf attachment site. Cambium is a growth tissue between xylem and phloem responsible for the plant's secondary growth, and it isn't where leaves attach either. So the node is the correct term describing where the leaf attaches.

**3. What term describes an irrigation system that applies water directly to the root zone?**

- A. Misting System
- B. Drip Irrigation**
- C. Overhead Sprinklers
- D. Flood Irrigation

Delivering water directly to the root zone is achieved with drip irrigation. This method uses emitters or soaker hoses placed at or near the base of the plant to release water slowly right where the roots can take it up, which makes water use highly efficient and reduces waste from evaporation or runoff. Drip systems are well suited for beds, containers, and shrubs because they provide precise, localized moisture and can be paired with mulches or soil sensors to maintain the right soil balance. In contrast, misting systems spray fine droplets into the air around the foliage, not into the soil where roots absorb water; overhead sprinklers water the plant canopy from above and often lose water to evaporation or leaf wetness; flood irrigation wets a large area of soil surface without targeting the root zone and wastes a lot of water.

4. If an item costs \$5.00, adding 50% for profit and 10% markup on total cost results in what final price?

- A. \$10.00
- B. \$8.25**
- C. \$11.00
- D. \$8.00

Understanding how sequential percentage changes affect price. When you add 50% for profit, you multiply the cost by 1.50:  $5.00 \times 1.50 = 7.50$ . Next, the 10% markup is on that new total, so you multiply by 1.10:  $7.50 \times 1.10 = 8.25$ . Equivalently, you can multiply the original cost by the combined factor  $1.50 \times 1.10 = 1.65$ , giving  $5.00 \times 1.65 = 8.25$ . So the final price is \$8.25.

5. Cover crops help conserve nitrogen in the soil.

- A. Potash
- B. CO<sub>2</sub>
- C. Heat
- D. Nitrogen**

Conserving nitrogen means keeping the soil's nitrogen available for plants and reducing losses. Cover crops achieve this by capturing excess nitrogen that would otherwise be lost, especially during off-season periods. As they grow, they take up nitrate and other forms of nitrogen, which helps prevent leaching into groundwater. When the cover crop dies or is incorporated into the soil, that nitrogen returns to the soil in organic form and is slowly mineralized, making it available for subsequent crops. Some cover crops, particularly legumes, can fix atmospheric nitrogen, adding new nitrogen to the soil instead of just recycling it. Building soil organic matter from the cover crop also helps retain nitrogen by improving soil structure and its capacity to hold nutrients. So nitrogen is the nutrient being conserved. Potassium, carbon dioxide, and heat relate to other soil or plant processes but do not describe nitrogen conservation in this context.

6. Which advertisement medium reaches the largest audience in horticulture?

- A. Television**
- B. Newspaper
- C. Magazine
- D. Word of mouth

Television reaches the largest audience because it's accessible to most households and engages viewers with both sight and sound across a wide range of ages and demographics. It can deliver messages to a broad audience quickly, whether the campaign is local or national, giving it the greatest potential reach among common ad mediums. Newspapers and magazines, while useful for targeted or niche groups, have smaller overall circulation and shifting reader habits that limit total exposure. Word of mouth is powerful for credibility and sharing, but it depends on personal networks and doesn't guarantee broad, scalable reach or easy measurement. For maximizing audience size in horticulture advertising, television typically offers the widest reach.

7. The amount of light a plant needs to stimulate flower bud formation is known as

- A. High intensity discharge lighting
- B. Photoperiod**
- C. Incandescent lighting
- D. Day length

Photoperiod is the duration of daily light exposure that a plant uses as a signal to start flowering. It's the balance of light and dark over a 24-hour cycle that tells the plant when conditions are right to form flower buds. Some plants need longer days to flower, others need longer nights, and growers manipulate photoperiod with lighting schedules to induce or delay blooming. This concept is about timing and duration of light, not how bright the light is or what kind of lamp is used, which is why terms describing light intensity or lamp type aren't the same. Day length describes the same pattern in plain language, but photoperiod is the precise term for the light-duration cue controlling flowering.

8. Which plant from the following is a flowering herbaceous perennial?

- A. Ageratum
- B. Zinnia
- C. Marigold
- D. Daylily**

A plant that is a flowering herbaceous perennial lives for several years, has soft, non-woody growth, and blooms year after year from the same crown. The daylily fits this pattern: it has a perennial crown that survives winter (or dry seasons) and sends up new leafy shoots each season, producing plentiful flowers on tall stems. It dies back to the crown and regrows, rather than needing to be replanted each year. The other choices are typically grown as annuals in temperate climates because they complete their life cycle in one growing season and don't persist as established perennials. They do produce flowers, but they aren't reliably perennials in common garden conditions. So the daylily is the best fit for a flowering herbaceous perennial.

9. Scarification is used to achieve what effect on seeds?

- A. Hydration
- B. Stratification
- C. Gestation
- D. Scarification**

Scarification targets seeds with a hard, protective coat and works by breaking or weakening that coat. When the seed coat is disrupted, water and gases can enter more easily, allowing the seed to hydrate and begin germination. In other words, the purpose is to overcome physical dormancy caused by a tough coat, enabling germination. Hydration happens as a result, while stratification is a different dormancy-breaking method that uses cold exposure, and gestation isn't a relevant term here.

**10. Which plant reproductive structure is typically an above-ground runner?**

- A. Root buds**
- B. Stolons**
- C. Rhizomes**
- D. Suckers**

**Stolons are the structure that acts as an above-ground runner. They are horizontal stems that grow along the surface of the soil and form new plants at the points where they root. This lets a plant spread and reproduce vegetatively while staying largely at ground level, which is why strawberries and similar plants use stolons to pop up new individuals nearby. In contrast, rhizomes stay underground and spread through subterranean stems; suckers are new shoots that arise from the base or roots rather than running along the surface; root buds are buds on roots that can sprout, but they aren't runners. So the description of an above-ground runner fits stolons best.**

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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](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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