

# NOCTI 6157 Pennsylvania Applied 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. What is a cormel?**
  - A. A yellowing of leaves due to lack of chlorophyll**
  - B. Movement of soil components by wind or water**
  - C. A miniature corm produced on a short stolon from the base of a corm**
  - D. A chemical used to kill pests**
  
- 2. Fire blight primarily affects which family?**
  - A. Rosaceae**
  - B. Aceraceae**
  - C. Solanaceae**
  - D. Poaceae**
  
- 3. If a unit costs \$14.00 and the sales tax is 6 percent, what is the total for 4 units?**
  - A. 56.00**
  - B. 59.36**
  - C. 65.00**
  - D. 66.40**
  
- 4. Which of the following is a fungus commonly seen on plants?**
  - A. Virus**
  - B. Nematode**
  - C. Bacteria**
  - D. Powdery mildew**
  
- 5. What term describes the movement of soil components, especially topsoil, from one location to another, usually by wind or water?**
  - A. Movement of soil components, especially topsoil, from one place to another, usually by wind, flowing water, or both.**
  - B. Compaction of soil by heavy machinery.**
  - C. Increase in soil nutrient content due to fertilizer.**
  - D. Formation of new soil layers through deposition.**

- 6. Which statement describes the Safety Data Sheet (SDS) requirement?**
- A. Safety Data Sheet**
  - B. Abbreviated SDS; required by law for all products sold, including safety information**
  - C. Standard Data Sheet**
  - D. Soil Data Sheet**
- 7. Which structure contains pollen?**
- A. Ovary**
  - B. Style**
  - C. Filament**
  - D. Anther**
- 8. When watering multiple hanging baskets, which system minimizes labor and conserves water?**
- A. Hydroponics**
  - B. Drip irrigation**
  - C. Rain barrel**
  - D. Sprinkler nozzle**
- 9. When working with herbicides, protective equipment that should be worn includes**
- A. Knee pads**
  - B. Safety glasses**
  - C. Loose clothing**
  - D. Leather boots**
- 10. Which plant parts are important in the sexual reproduction of the parent plant?**
- A. Runners**
  - B. Flowers**
  - C. Bulblets**
  - D. Cormels**

## Answers

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

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## **Explanations**

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### 1. What is a cormel?

- A. A yellowing of leaves due to lack of chlorophyll
- B. Movement of soil components by wind or water
- C. A miniature corm produced on a short stolon from the base of a corm**
- D. A chemical used to kill pests

A cormel is a miniature corm produced on a short stolon from the base of a mature corm, functioning as a baby corm for vegetative propagation. This small structure stores nutrients and can be separated and planted to grow a new plant. In many plants that form corms, such as gladiolus, the cormel appears on the stolon around the base of the main corm. The other options refer to different concepts: yellowing leaves from lack of chlorophyll is chlorosis, the movement of soil by wind or water is erosion, and a chemical used to kill pests is a pesticide.

### 2. Fire blight primarily affects which family?

- A. Rosaceae**
- B. Aceraceae
- C. Solanaceae
- D. Poaceae

Fire blight is a bacterial disease that primarily targets plants in the rose family, Rosaceae. The pathogen *Erwinia amylovora* infects apples, pears, crabapples, quinces, and related Rosaceae species, causing the characteristic scorched-looking shoots and cankers. Because the main hosts belong to Rosaceae, this family is the correct choice. The other families listed—maples (Aceraceae), nightshades like tomatoes and potatoes (Solanaceae), and grasses (Poaceae)—are not the typical hosts for fire blight, so they are not commonly affected.

### 3. If a unit costs \$14.00 and the sales tax is 6 percent, what is the total for 4 units?

- A. 56.00
- B. 59.36**
- C. 65.00
- D. 66.40

To solve this, multiply the unit price by the quantity to get the pre-tax subtotal, then apply sales tax to that subtotal. Four units at \$14 each cost  $14 \times 4 = 56.00$  dollars before tax. A 6% tax means multiplying by 0.06:  $56.00 \times 0.06 = 3.36$  dollars in tax. Add that tax to the subtotal:  $56.00 + 3.36 = 59.36$  dollars. So, the total is 59.36. The other totals would come from omitting tax or misapplying the rate, but the correct approach includes tax on the full pre-tax amount.

**4. Which of the following is a fungus commonly seen on plants?**

- A. Virus**
- B. Nematode**
- C. Bacteria**
- D. Powdery mildew**

Powdery mildew is a type of fungus that commonly affects plants, and it appears as a white, powdery coating on leaves, stems, and sometimes flowers, especially in humid, moderate-temperature conditions. This makes it the correct choice because it is a fungal pathogen, unlike the other options. A virus is an infectious particle that invades plant cells and often causes mosaics or deformities; a nematode is a tiny worm that damages roots or other tissues; bacteria are single-celled organisms that can cause spots, rot, or wilting. The powdery mildew growth and its biology clearly identify it as the plant fungus among those possibilities.

**5. What term describes the movement of soil components, especially topsoil, from one location to another, usually by wind or water?**

- A. Movement of soil components, especially topsoil, from one place to another, usually by wind, flowing water, or both.**
- B. Compaction of soil by heavy machinery.**
- C. Increase in soil nutrient content due to fertilizer.**
- D. Formation of new soil layers through deposition.**

Erosion is the movement of soil components, especially topsoil, from one location to another by wind or water. This process removes the most fertile part of the soil, which is rich in nutrients and organic matter, and can leave behind poorer subsoil, reducing productivity. Wind can lift loose particles, while flowing water can wash them away in sheets, or carve them out in channels like rills and gullies. When those transported particles settle somewhere else, that's deposition—the placement of sediments—which is the opposite of erosion. Other terms describe changes in soil in place (like compaction from heavy equipment) or additions of nutrients, rather than the actual removal and relocation of soil.

**6. Which statement describes the Safety Data Sheet (SDS) requirement?**

**A. Safety Data Sheet**

**B. Abbreviated SDS; required by law for all products sold, including safety information**

**C. Standard Data Sheet**

**D. Soil Data Sheet**

Understanding safety requirements for chemical products means recognizing that every product with hazardous chemicals requires an SDS. An SDS is the Safety Data Sheet, the official document that communicates hazards, safe handling, storage, and emergency information. The key point is that providing an SDS is required by law for all chemical products sold; this includes the safety information the sheet contains so workers can protect themselves and respond correctly in spills or exposures. Typical content covers product identification, hazard statements, first aid, firefighting, accidental release measures, handling and storage, exposure controls and PPE, and regulatory information. The other options either describe something different (like a generic form or a soil data sheet) or just name what the document is without addressing the legal requirement and purpose of the sheet.

**7. Which structure contains pollen?**

**A. Ovary**

**B. Style**

**C. Filament**

**D. Anther**

Pollen is produced in the anther, the male part of the flower's stamen. Inside the anther, pollen sacs form pollen grains, which are then released for pollination. The other structures don't contain pollen: the ovary holds ovules, the style is the stalk that connects the stigma to the ovary, and the filament is the stalk that supports the anther. So, the structure that contains pollen is the anther.

**8. When watering multiple hanging baskets, which system minimizes labor and conserves water?**

**A. Hydroponics**

**B. Drip irrigation**

**C. Rain barrel**

**D. Sprinkler nozzle**

Drip irrigation is the best choice because it delivers water directly to the base of each hanging basket at a slow, consistent rate, which maximizes water use and minimizes waste. When you run a single main line to multiple baskets and use emitters or small tubes, you can automate watering with a timer, cutting down on daily labor. This targeted approach keeps the root zone moist without overwatering foliage, reducing evaporation and runoff. Hydroponics relies on growing in a nutrient solution and isn't the typical setup for hanging baskets, so it usually involves more specialized infrastructure. A rain barrel stores water but doesn't automatically distribute it to many baskets without additional delivery lines. A sprinkler nozzle wets an area above the plants, wasting water through evaporation and unnecessary foliage wetting, making it the least efficient option for multiple hanging baskets.

**9. When working with herbicides, protective equipment that should be worn includes**

- A. Knee pads**
- B. Safety glasses**
- C. Loose clothing**
- D. Leather boots**

Eye protection is essential when working with herbicides because even a small splash or drift can injure the eyes. Safety glasses provide a barrier to shield the eyes from chemical exposure, splashes, and dust, reducing the risk of irritation or chemical burns. While other items like knee pads or leather boots don't protect against chemical contact, and loose clothing can allow herbicide to contact skin more easily, the most important protective gear for this scenario is eye protection. In addition to safety glasses, you should wear gloves, long sleeves and pants, and chemical-resistant footwear, with a respirator if the label requires it.

**10. Which plant parts are important in the sexual reproduction of the parent plant?**

- A. Runners**
- B. Flowers**
- C. Bulblets**
- D. Cormels**

Sexual reproduction in plants occurs through flowers, which house the organs that make seeds. In a typical flower, the male parts (stamens) produce pollen, and the female part (pistil) contains ovules. When pollen fertilizes an ovule, seeds form and can grow into new plants, bringing genetic variation. The other options are all vegetative propagation tools: runners spread plants without seeds, bulblets and cormels clone plants asexually. So flowers are the parts involved in sexual reproduction because they enable pollination, fertilization, and seed formation.

## 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://nocti6157paappliedhorticulture.examzify.com>**

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

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