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## **Floriculture - Greenhouse**

## General Assessment Information

### Blueprint Contents

General Assessment Information	Sample Written Items
Written Assessment Information	Performance Assessment Information
Specific Competencies Covered in the Test	Sample Performance Job

**Test Type:** The Floriculture-Greenhouse industry-based credential is included in NOCTI's Job Ready assessment battery. Job Ready assessments measure technical skills at the occupational level and include items which gauge factual and theoretical knowledge. Job Ready assessments typically offer both a written and performance component and can be used at the secondary and post-secondary levels. Job Ready assessments can be delivered in an online or paper/pencil format.

**Revision Team:** The assessment content is based on input from secondary, post-secondary, and business/industry representatives from the states of Idaho, Oklahoma, New York, Pennsylvania, and West Virginia.



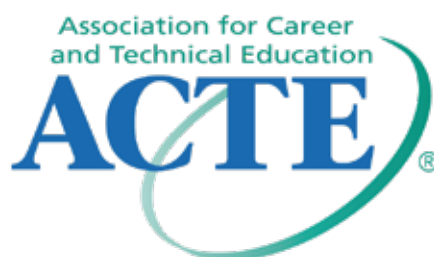
01.0608 - Floriculture/Floristry  
Operations and Management



Career Cluster 1 - Agriculture, Food  
and Natural Resources



27-1023.00 -  
Floral Designers



The Association for Career and Technical Education (ACTE), the leading professional organization for career and technical educators, commends all students who participate in career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed in the workplace. Good Luck!



NATIONAL COLLEGE CREDIT RECOMMENDATION SERVICE  
University of the State of New York - Regents Research Fund

In the lower division  
baccalaureate/associate degree  
category, 3 semester hours in  
Fundamentals of  
Floriculture-Greenhouse

## Written Assessment

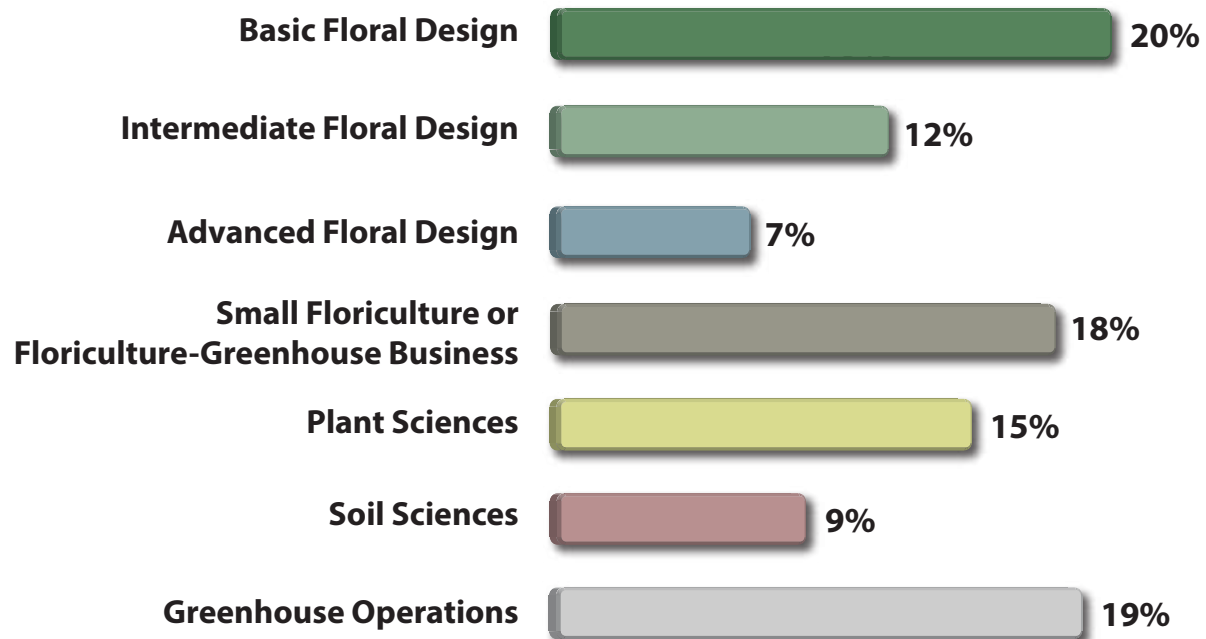
NOCTI written assessments consist of questions to measure an individual's factual theoretical knowledge.

**Administration Time:** 3 hours

**Number of Questions:** 196

**Number of Sessions:** This assessment may be administered in one, two, or three sessions.

### Areas Covered



## Specific Standards and Competencies Included in this Assessment

### **Basic Floral Design**

- Display basic safe work practices
- Identify and correctly use floral supplies and tools
- Use ribbons and accessories in floral design
- Design and create basic arrangements
- Process, condition, and store plants and cut flowers
- Exhibit knowledge of shop sanitation, including coolers, containers, and buckets
- Identify cut materials and plants
- Display basic knowledge of floral design history

### **Intermediate Floral Design**

- Create and design permanent floral arrangements
- Safely use steel pick machine, hot glue gun, and other floral adhesives
- Apply the principles and elements of floral design
- Exhibit knowledge of various floral wire services (FTD<sup>®</sup>, Teleflora<sup>®</sup>, and electronic services)

### **Advanced Floral Design**

- Design and create various holiday and special occasion arrangements
- Apply knowledge and competence with wedding designs and accessories
- Apply knowledge and competence with funerals and sympathy work

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## Specific Standards and Competencies (continued)

### Small Floriculture or Floriculture-Greenhouse Business

- Identify and describe business categories (sole proprietor, partnership, etc.)
- Exhibit knowledge of proper floriculture salesmanship techniques, customer relations, including telephone etiquette
- Set up effective merchandise displays and window displays
- Exhibit knowledge of effective floriculture advertising techniques
- Correctly price and determine costs of floral arrangements
- Apply knowledge of correct inventory procedures, shipping/receiving, and completing invoices
- Apply business math (invoice, payroll, labor, etc.)
- Identify and describe careers/jobs within the floral and/or greenhouse industry

### Plant Sciences

- Classify plants using binomial nomenclature
- Identify and describe plant life cycles
- Identify and describe plant anatomy and physiology
- Exhibit understanding of sexual and asexual plant reproduction



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## Specific Standards and Competencies (continued)

### Soil Sciences

- Identify and describe soil microbiology, components, and classification
- Describe drainage dynamics and types
- Identify and describe essential and trace elements, interactions, and availability
- Analyze soil test results
- Identify and describe types of growing media

### Greenhouse Operations

- Correctly select appropriate structures, sites, and layouts for greenhouses
- Describe various watering techniques
- Describe environmental factors that affect crop production
- Apply methods of propagation (i.e., sexual, asexual)
- Identify types and uses of fertilizers
- Describe concepts and practices of integrated pest management (IPM)
- Identify and describe greenhouse-related worker protection standards
- Describe various effective methods of greenhouse climate control
- Identify greenhouse crops
- Identify and use greenhouse-related containers
- Identify and describe insect types, anatomy, and life cycles



## Sample Questions

**Artistry and design principles are most important to an individual seeking a career in**

- A. greenhouse production
- B. plant science
- C. retail floristry
- D. soil science

**Steel pick machines use steel picks that may**

- A. come with or without wire attached
- B. be useful for cutting heavy stems
- C. cut fingers because they are sharp
- D. be purchased in various colors

**The two most common tools used for fresh flowers designs are a**

- A. styrofoam cutter and ribbon shears
- B. staple gun and wire cutters
- C. sharp knife and floral shears
- D. stem stripper and pruners

**What is the scientific name (binomial nomenclature) for the carnation?**

- A. *lilium longiflorum*
- B. *erica carnea*
- C. *hyacinthus orientalis*
- D. *dianthus caryophyllus*

**The term, scarification, describes a method of**

- A. reducing scars on a stem of a plant
- B. subjecting seeds to cold weather to aid germination
- C. detecting plant disease
- D. mechanically helping a seed to take in water

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## Sample Questions (continued)

**The term, \_\_\_\_\_, describes the process of cell division that allows plants to be propagated vegetatively.**

- A. mitosis
- B. meiosis
- C. osmosis
- D. symbiosis

**FTD® and Teleflora® are examples of**

- A. floral wire services
- B. nationwide flower shop chains
- C. flower trade names
- D. floral telemarketing companies

**A bud vase design is**

- A. triangular
- B. one-sided
- C. horizontal
- D. voluminous

**The \_\_\_\_\_ of the plant produces or manufactures food.**

- A. root system
- B. stem
- C. leaf
- D. hair root

**Tropical foliage plants grown in greenhouses include**

- A. philodendron, crocus, and petunia
- B. philodendron, bromeliad, and petunia
- C. philodendron, bromeliad, and anthurium
- D. bromeliad, ficus, and crocus



## Performance Assessment

NOCTI performance assessments allow individuals to demonstrate their acquired skills by completing actual jobs using the tools, materials, machines, and equipment related to the technical area.

**Administration Time:** 2 hours and 55 minutes

**Number of Jobs:** 5

### Areas Covered:

#### 19% Isosceles Triangle Arrangement

Participants will calculate wholesale cost, resale cost, and margin of profit for the arrangement, prepare the container, design the arrangement and handle the equipment well.

#### 25% Design a Multi-Flower Corsage

Participants will appropriately select flowers and foliage, assemble, decorate, and package the corsage.

#### 10% Cash Register/Sales

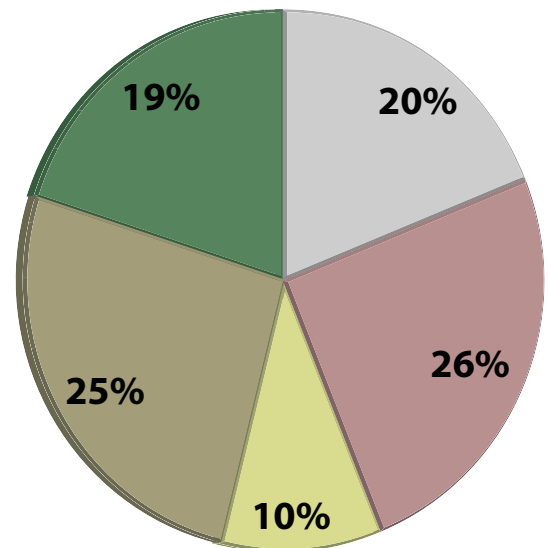
Participants will greet the customer, complete the receipt, calculate the bill, count back change and close the sale.

#### 26% Plant Classification and Identification

Participants will correctly identify annuals, perennials, cut flowers, house plants, and cut foliage.

#### 20% Start/Propagate Herbaceous Plant from a Stem Tip Cutting

Participants will be organized and prepare containers, cut harvesting, prepare the cuttings, stick the cuttings, prepare labels and place containers, and clean up.



## Sample Job

### Start/Propagate Herbaceous Plant from a Stem Tip Cutting

**Maximum Time:** 25 minutes

**Participant Activity:** The participant will prepare 12 containers for starting, by direct sticking, 12 herbaceous plant cuttings. Harvest cuttings from a stock plant and demonstrate sterile techniques using a florist's knife. Prepare cuttings and treat with rooting compound. Properly stick the cuttings into the containers. Label the containers and place potted plants in the greenhouse. Clean up work area and return supplies to original location.

