

**2004 FFA CAREER DEVELOPMENT EVENT  
FLORICULTURE PROBLEM SOLVING**

Contestant Number: \_\_\_\_\_ Name: \_\_\_\_\_

Chapter Name: \_\_\_\_\_ Score: \_\_\_\_\_

**Directions:** Read each question carefully and choose the best possible answer. If provided with Scantron sheets, bubble in the answer. Otherwise, write the answer in the blank to the left of each number. Each correct answer is worth 10 points.

- \_\_\_\_\_ 1. A local florist has determined that the mark up on poinsettias should be 68%. If the wholesale cost is \$6.50, what should the retail price be?
- a. \$4.42
  - b. \$6.50
  - c. \$9.50
  - d. \$10.92
- \_\_\_\_\_ 2. The local florist is having a 25% off clearance sale on every item in the shop. If Mrs. Smith bought \$400.00 at regular price, how much would she pay, including 7.5% North Carolina sales tax?
- a. \$32.25
  - b. \$322.50
  - c. \$325.00
  - d. \$314.50
- \_\_\_\_\_ 3. Sandy has the following items on her inventory:
- 18 benches at \$500.00 each
  - 1 greenhouse at \$9,000
  - 4 sprayers at \$850.00 each
  - 15 gallons fertilizer at \$15.00 each
  - 3000 plants at \$8.00 each
- What is the total value of her inventory?
- a. \$38,600.00
  - b. \$43,250.00
  - c. \$45,625.00
  - d. \$32,475.00
- \_\_\_\_\_ 4. If an ounce of flower seeds has 3000 seeds with an 85% germination rate, how many seedlings could you expect to get from sowing 8 ounces?
- a. 2000
  - b. 24,000
  - c. 22.400
  - d. 20.400

- \_\_\_\_\_ 5. You are responsible for ordering potting media which comes in 3.5 cubic foot bags. It takes 1 cubic foot of potting media for five 10-inch hanging baskets. How many bags of potting media do you need to pot 2500 10-inch hanging baskets?
- 133
  - 143
  - 153
  - 175
- \_\_\_\_\_ 6. A local flower shop has determined that the wholesale cost of materials should be 45% of the retail selling price of his products. If the wholesale cost is \$7.00 per plant, what should the retail price be?
- \$3.15
  - \$10.20
  - \$15.56
  - \$30.00
- \_\_\_\_\_ 7. It takes 1 cubic foot of potting media for twelve 6-inch pots. You have ordered 5 cubic yards of special mixed potting media. How many pots will you be able to prepare?
- 1620
  - 540
  - 600
  - 1840
- \_\_\_\_\_ 8. A North Carolina greenhouse operator recently received severe wind damage to several greenhouses. Expenses to date are listed below.
- |                        |          |
|------------------------|----------|
| Materials and supplies | \$16,000 |
| Labor costs            | \$14,500 |
| Utility costs          | \$ 8,000 |
- An inventory showed 8,500 plants could be sold from the greenhouses. What would be the price per plant to cover the expenses listed above?
- \$3.00
  - \$4.45
  - \$6.60
  - \$4.53

- \_\_\_\_\_ 9. A greenhouse has 6 benches 4 feet wide and 100 feet long. If the final spacing for 6-inch poinsettias is 18 x 18 inches, what is the maximum number of pots that could be placed in this greenhouse?
- a. 420
  - b. 1050
  - c. 1067
  - d. 1800
- \_\_\_\_\_ 10. If six gallons of water mixed with 3.85 ounces of liquid pesticide makes a 3% solution, how many ounces of pesticide would it take to produce a 4% solution?
- a. 5.13
  - b. 6.15
  - c. 4.25
  - d. 7.81

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ANSWER KEY**

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  - g. \$6.60
  - h. \$4.53

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ANSWER KEY – CALCULATIONS**

1.  $6.50 \times .68 = 4.42$     $6.50 + 4.42 = 10.92$
2.  $400 \times .25 = 100$     $400 - 100 = 300$     $300 \times .075 = 22.50$   
 $300 + 22.50 = \$322.50$
3.  $18 \times 500 = 9000$   
           $9000$   
 $4 \times 850 = 3400$   
 $15 \times 15 = 225$   
 $3000 \times 8 = \underline{24000}$   
           $\$45,625$
4.  $3000 \times 8 = 24000$     $24000 \times .85 = 20,400$
5.  $3.5 \times 5 = 17.5$  / bag    $2500 \div 17.5 = 143$
6.  $7 \div .45 = \$15.56$
7.  $27 \times 5 = 135$  cu ft    $135 \times 12 = 1620$
8.  $16,000 + 14,500 + 8000 = 38,500$     $38,500 \div 8500 = \$4.53$
9.  $6 \times 4 \times 100 = 2400$     $1.5 \times 1.5 = 2.25$     $2400 \div 2.25 = 1067$
10.  $3.85 \div 3 = 1.2833$     $1.2833 \times 4 = 5.13$