

II. SHORT ANSWERS

1. What is meant by a "greenhouse"? (2 points)

2. A one-acre greenhouse has a covered ground area of approximately _____ ft. (2 points)

3. Contrast glass vs. polyethylene film as a greenhouse cover material in terms of light and thermal energy transmission: (4 points)

4. Glass used for greenhouse covering is usually _____ grade and _____ strength. (2 points)

5. What is meant by a "contiguous" greenhouse: (3 points)

6. If you have a four-acre greenhouse with a bench space efficiency of 70 %, what would be the total area of benches? (2 points)

Answer _____ ft².

7. The generally recommended greenhouse design loads for snow accumulation and growing tomatoes are: (2 points)

a. Snow load _____ lb/ft²

b. Crop load _____ lb/ft²

8. List five components of fixed costs: (3 points)

a. _____ b. _____ c. _____

d. _____

9. List four examples of direct costs? (3 points)

a. _____ b. _____ c. _____

d. _____

10. List five laws or regulations a greenhouse manager should be familiar with: (3 points)

a. _____ b. _____ c. _____
 d. _____ e. _____

11. Define the following terms used for heat transfer (3 points)

a. Conduction:

b. Convection:

c. Radiation:

12. The heat content and combustion efficiency of natural gas are 1,000 BTU/ft³ and 80%, respectively. If your greenhouse loses heat at a rate of 2,000,000 BTU per hour, how many ft³ of natural gas should be burned each hour? (3 points)

Answer _____ BTU/hr.

13. List two possible problems that may arise as a result of greenhouse condensation: (2 points)

a. _____

b. _____

14. List advantages and disadvantages of solar greenhouses: (2 points)

III. MULTIPLE CHOICE (2 points each)

1. Plants grown in the raised benches are more prone to disease development than those grown on the ground beds.

a. True

b. False

2. Which of the following floricultural crops are mostly imported into the United States?

a. Flowering pot plants

b. Cut flowers

c. Bedding plants

d. Foliage plants

3. Which of the following greenhouse covers has the *greatest* thermal transmission?
 - a. Glass, double strength
 - b. Polyethylene film (6 mil)
 - c. Fiberglass (6 oz/ft²)
 - d. Exolite, 16 mm

4. Which of the following glazing materials would provide the highest amount of diffused light inside a greenhouse?
 - a. Glass
 - b. Fiberglass
 - c. Plexiglass
 - d. Polyethylene film

5. How many 6-inch pots can be placed on a 4' x 100' bench if they are spaced 6" x 6" (pot-to-pot)?
 - a. 400 pots
 - b. 800 pots
 - c. 1200 pots
 - d. 1600 pots

6. Which of the following is *not* included in a balance sheet?
 - a. Fixed assets
 - b. Current liabilities
 - c. Profit margin
 - d. Owner's equity

7. "Current ratio" in accounting refers to:
 - a. a ratio of current assets to current liabilities.
 - b. a company's ability to meet interest costs.
 - c. the ratio of net sales to investment.
 - d. an average collection period.

8. Which of the following is **not** subject to depreciation?
 - a. Buildings
 - b. Land
 - c. Equipment
 - d. All of the above

9. Which of the following fuels has the *lowest* heat content?
- One pound of coal
 - One gallon of #2 oil
 - One ft³ of natural gas
 - One kw-hr of electricity
10. Which of the following statements relating DIF is *not* true?
- The differential (DIF) between the day and night temperatures influences plant heights.
 - Plants grown with negative DIF (day temperature is lower than night temperature) will be taller than those grown with positive DIF.
 - Plants grown with positive DIF will be taller than those grown with negative DIF.
 - As the DIF becomes greater, plants will grow taller.

BONUS QUESTION (3 points)

Ask one question of your own from any subjects that you have studied but not covered in this exam and answer it correctly.

Honor Pledge: Upon my honor I have neither given nor received aid in writing this exam.
Signed _____