1996 IOWA FFA
NURSERY/LANDSCAPE CONTEST
GENERAL KNOWLEDGE EXAM
PHASE I

Choose the one best answer and record on your answer sheet.
125 points (5 points each question)

1. The horticulture industry will _____ as population and home construction expand.

   a) get smaller
   b) stay the same
   c) grow
   d) none of the above

2. Grass seed should be spread evenly over the soil area. To do this

   a) always seed using a rotary seeder.
   b) always rake the seed into the soil.
   c) always seed by hand.
   d) sow half the seed in one direction, one half at 90° angle to the first seeding.

3. When establishing new lawns, the fertilizer is spread evenly over the soil surface and

   a) watered in.
   b) seeded immediately.
   c) worked into the soil surface with a rake.
   d) dug deeply into the soil.

4. One advantage in purchasing container grown plants is that

   a) they may be planted during any season of the year.
   b) they are less expensive than other forms.
   c) they are more readily available.
   d) they have better root formation.

5. Pruning is done to

   a) remove insect infested or broken wood.
   b) remove diseased wood or create special tree forms.
   c) remove dead wood.
   d) all of the above.

6. The best time of day to take cuttings from stock plants is

   a) early morning.
   b) mid-day.
   c) afternoon.
   d) evening.

7. The planting hole for deciduous shrubs is formed with straight sides and a flat bottom

   a) to make it more attractive.
   b) to simplify packing soil around the plant roots.
   c) to encourage root growth through the sides of the hole.
   d) because this kind of hole is easier to dig.

8. The most common mistake in mowing cool-season grasses is to

    a) mow them too high.
    b) use a dull mower blade.
    c) mow too often.
    d) mow them too short.

9. Burlap around the root ball should be removed

    a) entirely from the root ball.
    b) before the plant is set in the hole.
    c) by rolling it down the sides and leaving it under the ball.
    d) only from the top of the ball.

10. A tree or shrub that is planted without soil attached to its roots is a

    a) balled and burlapped tree.
    b) bare root.
    c) container grown.
    d) all of the above.

11. The grade and slope of the lawn should not exceed

    a) 5%.
    b) 10%.
    c) 15%.
    d) 25%.

12. Hardwood cuttings are stored for the first four weeks at a temperature of
    _____.

    a) 34-40°F
    b) 45-50°F
    c) 50-55°F
    d) 55-60°F

13. Bud sticks are cut from

    a) actively growing wood.
    b) healthy wood.
    c) the current season's growth.
    d) all of these.

14. The proper amount of spray insecticide has been applied to a plant when

    a) the bugs begin to die.
    b) the leaves are damp.
    c) the liquid just begins to drip from the leaves.
    d) all of the above.

15. New growth on pines is called

    a) candles.
    b) needles.
    c) branches.
    d) none of the above.

16. Bare-rooted deciduous trees are planted only when they

    a) are dormant.
    b) are beginning to leaf.
    c) are in full leaf.
    d) can be dug into the ground.

17. Where lawn grasses are thin but cover the entire lawn area and few weeds are present, the best renovation practice is to

a) remove the thatch layer if it is too thick.
b) either add seed or use weed killer - whichever is needed most.
c) fertilize the lawn and establish a good mowing schedule.
d) all of the above.

18. In the botanical plant name *Acer negundo*, *Acer* is the _____ name.

a) generic
b) specific
c) cultivar
d) variety

19. Whip or tongue grafting is accomplished in

a) early spring before bud swell.
b) winter when plants are dormant.
c) late summer, after buds mature.
d) early spring after active growth has started.

20. Flowers which are grown from bulbs include:

a) hyacinths, daffodils and tulips.
b) hyacinths, petunias and zinnias.
c) hyacinths, marigolds and begonias.
d) tulips, ageratum and pansy.

21. The more poisonous a pesticide is, the _____ the LD_{50} number is.

a) lower
b) higher

22. Ideal spacing of container plants is

a) where branches of adjoining plants overlap 2 inches.
b) when the containers are separated in all directions by the width of the container.
c) where the ends of the branches almost touch.
d) where branch tips are about 2 inches away from branch tips of other plants.

23. An example of a natural organic insecticide is

a) lead arsenate.
b) Sevin.
c) malathion.
d) rotenone.

24. Lawn seed should be carefully covered with soil to a depth of

a) 1/4 inch.
b) 1/8 to 3/8 inch, depending on seed size.
c) 1/2 inch.
d) 1 inch.

25. The best way to select flowering perennials for a particular area is

a) to judge according to what looks nicest in the seed catalog.
b) to observe plants that are growing there.
c) to purchase plants with colors that blend well together.
d) all of the above.

1996 IOWA FFA
NURSERY/LANDSCAPE CONTEST
NURSERY PROBLEM SOLVING
PHASE III

Choose the one best answer and record on your answer sheet.
50 points (10 points each question)

1. You planted 1200 trees that cost $3,818 to buy and plant. You spent $425 per
    year for 3 years to maintain and care for the trees. During the 3 year
    period 37 of the trees died. How much do have invested in each live tree at
    the end of the 3 years?

    a) $6.28
    b) $5.70
    c) $4.38
    d) $3.08

2. You wish to apply 1.5 pounds of nitrogen per 1000 sq. ft. of lawn area using
    19-5-8 fertilizer. You have 22,640 sq. ft. of lawn to fertilize. How many
    pounds of 19-5-8 fertilizer will you need?

    a)   34 pounds
    b) 179 pounds
    c) 430 pounds
    d) 724 pounds

3. A 2-gallon plastic nursery container will be used for potting up deciduous
    shrubs. One cubic yard of soil mix will fill 150 nursery containers. How
    many cubic yards of soil will be necessary to plant 1/2 acre of 2-gallon
    containers? Containers will be spaced 18 inches apart.

    a)   65 cubic yards
    b) 129 cubic yards
    c) 194 cubic yards
    d) 225 cubic yards

4. A small nursery 500 feet x 1000 feet is to be treated in the spring for weed
    control. Treflan is to be incorporated at the rate of 1 pint of emulsifiable
    concentrate per acre. How much Treflan emulsifiable concentrate will be
    required to treat this nursery?

    a)   1.14 pints
    b) 11.48 pints
    c) 20.83 pints
    d) 31.48 pints

5. You wish to place containers on 14 inch centers in a growing bed. How many
    containers can be placed on an 8' x 100' bed?

    a) 587
    b) 510
    c) 125
    d)   57

1996 IOWA FFA
NURSERY/LANDSCAPE CONTEST
GENERAL KNOWLEDGE EXAM
PHASE I

Choose the one best answer and record on your answer sheet.
125 points (5 points each question)

ANSWER KEY FOR TEST- Nursery/Landscape Exam 1996

ANSWER:
1. C

ANSWER:
2. D

ANSWER:
3. C

ANSWER:
4. A

ANSWER:
5. D

ANSWER:
6. A

ANSWER:
7. C

ANSWER:
8. B

ANSWER:
9. C

ANSWER:
10. B

ANSWER:
11. C

ANSWER:
12. C

ANSWER:
13. D

ANSWER:
14. C

ANSWER:
15. A

ANSWER:
16. A

ANSWER:
17. D

ANSWER:
18. A

ANSWER:
19. B

ANSWER:
20. A

ANSWER:
21. A

ANSWER:
22. C

ANSWER:
23. D

ANSWER:
24. B

ANSWER:
25. B

Nursery Problem Solving 1996

ANSWER:
1. C

ANSWER:
2. B

ANSWER:
3. A

ANSWER:
4. B

ANSWER:
5. B

1996 IOWA FFA
NURSERY/LANDSCAPE CONTEST
GENERAL KNOWLEDGE EXAM
PHASE I

Choose the one best answer and record on your answer sheet.
125 points (5 points each question)

ANSWER KEY FOR TEST- Nursery/Landscape Exam 1996

ANSWER:
1. C

ANSWER:
2. D

ANSWER:
15. A

ANSWER:
3. C

ANSWER:
16. A

Nursery Problem Solving 1996

ANSWER:
4. A

ANSWER:
17. D

ANSWER:
5. D

ANSWER:
18. A

ANSWER:
1. C

ANSWER:
6. A

ANSWER:
19. B

ANSWER:
2. B

ANSWER:
7. C

ANSWER:
20. A

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8. B

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21. A

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4. B

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9. C

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22. C

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5. B

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10. B

ANSWER:
23. D

ANSWER:
11. C

ANSWER:
24. B

ANSWER:
12. C

ANSWER:
25. B

ANSWER:
13. D

ANSWER:
14. C

1. What scale is the plan drawn in?

a. 1" = 8'
b. 1" = 20'
c. 1" = 10'
d. 1" = 15'

2. How many square feet in areas A & B?

a. 1575 sq. ft.
b. 1675 sq. ft.
c. 1250 sq. ft.
d. 1595 sq. ft.

3. How many pounds of Kentucky Blue grass is needed to seed areas A thru D if 1 1/2 pounds is applied per 1000 sq. feet?

a. 4 1/4 lbs.
b. 3 1/2 lbs.
c. 3 1/4 lbs.
d. 3 3/4 lbs.

4. What is the spread and planting distance of the Upright Yews?

a. 3 ft. spread   5 ft. apart
b. 4 ft. spread   8 ft. apart
c. 6 ft. spread   9 ft. apart
d. 5 ft. spread   8 ft. apart

5. What is the area of the entire lot, minus the house?

a. 12500 sq. ft.
b. 11250 sq. ft.
c. 10050 sq. ft.
d. 11550 sq. ft.

6. What is the spread of the Tulip Tree?

a. 10 ft.
b. 15 ft.
c. 20 ft.
d. 40 ft

7. How many 8" x 4" brick are needed to build the patio?

a. 775
b. 855
c. 1125
d. 1250

8. Sand Cherry are $30.00 apiece plus 30% of their total cost to have them installed. What is the total cost with 5% sales tax on materials and installation added?

a. $126.50
b. $120.75
c. $122.85
d. $124.65

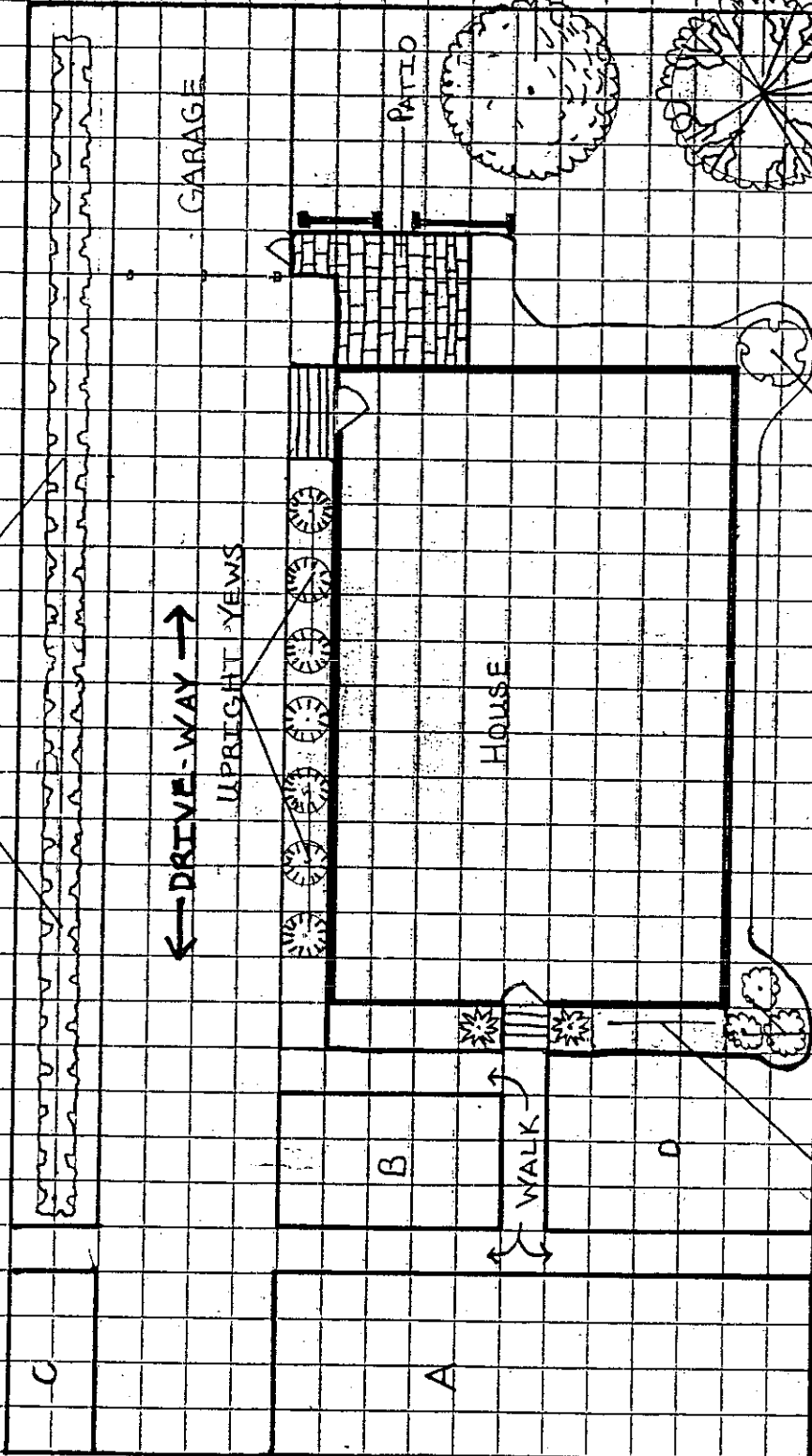9. How many petunias are needed for the North bed if planted 4 per square foot?

a. 275
b. 300
c. 185
d. 325

10. A Burning Bush hedge will be installed along the driveway. The first bush is planted 3 feet from the sidewalk and the planting distance is 5 feet; how many total bushes are needed to complete the hedge?

a. 27
b. 24
c. 26
d. 25

JACKSON RESIDENCE
4715 PINE RD
ANKENY   SCALE 1"=20'
PAUL MAYHUGH

GARAGE

BURNING BUSH

←DRIVE-WAY→

UPRIGHT YEWS

PATIO

TULIP TREE

PIN OAK

HOUSE

C

B

A

WALK

D

ANNUALS
PETUNIAS

SAND CHERRY

CRANBERRY VIBURNUM

N

○ RESCORE ○ MARK ✓ ○ TOTAL ONLY/BOTH SIDES

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49. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ
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KEY ITEM COUNT

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② ②
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④ ④
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⑥ ⑥
⑦ ⑦
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⑨ ⑨

FEED THIS DIRECTION

STUDENT ID (UPON REQUEST)

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② ② ② ② ② ② ② ② ② ②
③ ③ ③ ③ ③ ③ ③ ③ ③ ③
④ ④ ④ ④ ④ ④ ④ ④ ④ ④
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MARKING INSTRUCTIONS

USE NO. 2 PENCIL ONLY
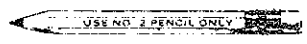
Use a No. 2 Pencil

Ⓐ ● Ⓒ Ⓓ Ⓔ
Fill circle completely

Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ
Erase cleanly

SCORE		# CORRECT	
		% CORRECT	
RESCORE		# CORRECT	
		% CORRECT	
ROSTER NUMBER		SCORE	
		RESCORE	

Nursery *- Phase 2*
NAME *Landscape Plan*
SUBJECT *Key*
PERIOD ___ DATE ___

TEST ANSWER SHEET B ■   ■ — NATIONAL COMPUTER