

**2012 North Dakota State FFA
Nursery/Landscaping Career Development Event
Written Exam**

Please record your answers on the computer scorecard that has been provided. You must use a No.2 pencil. Please **do not** write on this test. (5 points each)

1. Plants that have gracefully drooping limbs are often described in horticultural terms as being _____ .
A. withering
B. floppy
C. weeping
D. sagging
2. Locally owned, independent garden centers have found it difficult to compete with chain stores on price. In many cases, they have been able to remain competitive by providing:
A. longer hours of operation.
B. better guarantees.
C. cleaner and brighter stores.
D. better service.
3. Plants store reserve energy in the form of _____.
A. fats
B. glycerides
C. carbohydrates
D. amino acids
4. A disorder of plants called 'wind burn' is caused by:
A. wind friction to stems.
B. desiccation of plant tissues
C. hydration of plant tissues
D. abrasion by grit in the wind
5. What is the purpose of surfactants used in horticulture?
A. to help the spreading and wetting ability of spray materials
B. to provide nutrients to the plants
C. to control plant diseases
D. to assist a plant in absorbing air-born nutrients
6. Deciduous bare root plants obtained in the dormant season that cannot be planted immediately should be _____ to preserve them until they can be planted.
A. hardened-off
B. layered
C. callused
D. heeled-in
7. Which of these is a safety feature on a chainsaw?
A. Chain Brake
B. Braille Instructions
C. Back up horn
D. GFCI switch
8. In the commercial nursery trade, additions are often made to the binomial name of a plant, such as, "Crimson King" to the name *Acer platanoides*. In this case, "Crimson King" is the _____ name.
A. species
B. cultivar
C. genus
D. order
9. Plant _____ is the science of describing, identifying, categorizing and naming plants.
A. anatomy
B. delineation
C. taxonomy
D. protocol

10. The openings around soil particles that hold air or water are called:
A. reservoirs
B. bubbles
C. stoma
D. pore spaces
11. The skeletal structure found on the outside of an insect's body is called:
A. armor.
B. exoskeleton.
C. gross.
D. skin.
12. A plant pathologist studies:
A. rock fossils.
B. plant propagation methods.
C. plant diseases.
D. environmental adaptation of plants
13. Most of the feeding roots of a tree can be found between _____ inches deep.
A. 1 and 12
B. 10 and 30
C. 10 and 50
D. 10 and 60
14. A biological agent or virus that can cause a disease is known as a(n):
A. BSE
B. Bactericide
C. Pathogen
D. Prion
15. A plant whose young leaves exhibit yellow between the veins while the veins remain green is suffering from _____ deficiency.
A. lactose
B. iron
C. Vitamin D
D. light
16. Plants such as *Ginkgo* and *Holly* have only male or female flowers on a single plant are called _____.
A. imperfect
B. perfect
C. monocious
D. dioecious
17. In what position should a deciduous tree planted to shade a building from the hot afternoon sun during the summer yet allow the warming sun rays to reach the building in winter?
A. East
B. North
C. Northwest
D Southwest
18. The horticultural term for the premature or unwanted production of flowers and seeds is:
A. Bolting
B. Pregnancy
C. Tillering
D. Puberty
19. Two of the most common tests performed on potting soil are to determine pH and _____ levels.
A. soluble salts
B. nitrogen
C. oxygen
D. radon
20. Which type of mower is generally used on golf greens for general mowing?
A. Vertical mower
B. Rotary mower
C. Reel mower
D. Flail mower
21. Plant hardiness zone maps are based on:
A. temperature.
B. hours of sunlight.
C. Frost date.
D. elevation.

22. The configuration of the land, including hills, valleys and flat areas, is referred to as:
A. elevation. C. topography.
B. surface declination. D. badlands.
23. The _____ of the front of the home is usually the front door, with plantings leading the viewer's eye toward the door.
A. apex C. focal point
B. social area D. center
24. Which of the following can be added to soil in order to increase pH?
A. glucose C. sulfur
B. powdered lime D. water
25. Most plants do not grow well in wet, poorly drained soils because of:
A. low oxygen content. C. excess nitrogen.
B. high pH. D. low soil temperature.
26. If a customer wants an organic fertilizer, which of the following would be the best choice?
A. Sodium Chloride C. Pine Needles
B. Leaf Mulch D. Sheep manure
27. Most of the damaging white grubs found in lawns are the larvae of:
A. crickets. C. moths.
B. wasps. D. beetles.
28. Small, corky pores along the stem that allow for gas exchange between the atmosphere and plant cells are:
A. bud scales C. terminal buds
B. internodes D. lenticels
29. The process of converting food energy into energy for plant growth is called:
A. respiration C. acclimatization
B. photosynthesis D. transpiration
30. A method of lawn establishment that uses cores or small pieces of turf planted a few inches apart is known as:
A. Plugging C. Perforation
B. Perforation Mottling D. Zitting
31. Soils used for starting seeds and root cuttings in the nursery should be:
A. sterilized. C. pasteurized.
B. homogenized. D. stratified.
32. A _____ soil has the largest pore spaces, drains the quickest and has the poorest nutrient holding capability.
A. clay C. clay loam
B. sandy D. silt loam
33. Most plants grow best in soil with a pH range of _____.
A. 3.5 to 5.0 C. 6.0 to 6.5
B. 4.0 to 5.0 D. 7.0 to 8.0

34. This organism is both the smallest and has no pesticide to control the diseases it causes.
- A. Bacteria
 - B. Fungus
 - C. Thrip
 - D. Virus
35. Many insects are attracted to _____, which is the color often used in sticky tapes.
- A. Yellow
 - B. Red
 - C. Violet
 - D. Black
36. The best time of day to take stem cuttings of landscape plants for propagation is:
- A. mid-day.
 - B. early morning.
 - C. early evening.
 - D. mid-afternoon.
37. When planting a balled and burlapped tree, care should be given to unwrap or untie any materials from around the trunk to prevent:
- A. rodent chewing.
 - B. girdling.
 - C. trunk twist.
 - D. guying.
38. The word 'alba' in a plant name usually means that the blooms will be:
- A. red.
 - B. blue
 - C. white.
 - D. pink.
39. The purpose of spraying an antidesiccant on newly harvested landscape plants prior to shipping is to:
- A. increase photosynthesis.
 - B. reduce moisture loss from leaves.
 - C. reduce pit odor.
 - D. improve color.
40. Which of the following is a turfgrass disorder associated with buried wood/stumps etc.
- A. Dead Spot
 - B. Fairy Ring
 - C. Rust
 - D. Leaf Spot
41. Should employees become injured or ill due to work-related causes, they can receive financial assistance through their state's _____ program.
- A. OSHA assistance
 - B. Worker's Compensation
 - C. FEMA assistance
 - D. APHIS Worker assistance
42. Which of these is used to alleviate pressure on stone and masonry retaining walls that may be caused by water?
- A. Dead-man brace
 - B. Weep holes
 - C. Catch basins
 - D. Vermiculite
43. The home landscape is generally divided into three areas, the private, service and _____ area.
- A. formal
 - B. foundation
 - C. public
 - D. neighboring
44. Which of the following are all fixed assets common to the landscape business?
- A. land, buildings & cash on-hand
 - B. cash on-hand, inventory & tractors
 - C. buildings, inventory & bank balance
 - D. land, buildings & irrigation pond

**2012 ND State FFA
Nursery/Landscaping Career Development Event
Written Exam Key**

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|-------|-------|
| 1. C | 26. D |
| 2. D | 27. D |
| 3. C | 28. D |
| 4. B | 29. A |
| 5. A | 30. A |
| 6. D | 31. C |
| 7. A | 32. B |
| 8. B | 33. C |
| 9. C | 34. D |
| 10. D | 35. A |
| 11. B | 36. B |
| 12. C | 37. B |
| 13. A | 38. C |
| 14. C | 39. B |
| 15. B | 40. B |
| 16. D | 41. B |
| 17. D | 42. B |
| 18. A | 43. C |
| 19. A | 44. D |
| 20. C | 45. A |
| 21. A | 46. C |
| 22. C | 47. B |
| 23. C | 48. A |
| 24. B | 49. A |
| 25. A | 50. A |

INFORMATION PROVIDED TO THE CONTESTANT

1. Shop: **Campus Garden Center.**
2. Salesperson: Identify yourself by contest number or by first name.
3. Address: As shown on form SFN 7206.
4. Delivery Policy: Free delivery in the Fargo area with any order over \$50.00.
15% on orders under \$50.00 (non-taxable)
5. Installation: 65% of the purchase price (\$20.00 minimum).
6. Taxes: 6% on sales. No tax on labor.
7. Shop hours: 8:00 AM to 6:00 PM, Monday thru Saturday

Services Available:

1. A full line of trees and shrubs in a large variety of sizes.
2. Professional landscapers on hand to help you with your planning.
3. Delivery service.
4. Installation service.
5. A full line of chemicals and fertilizers.
6. A plant diagnostic specialist is on staff.
7. A wide variety of landscape timber, stone, rock and chip is available.

Potted Evergreens

Variety	1 gal.	2 gal.	5 gal.
Creeping Juniper	\$9.99	\$14.99	
Maney Juniper	\$9.99	\$14.99	
Pfitzer	\$10.49	\$15.49	\$27.99
Savin Juniper	\$10.49	\$15.49	\$27.99
Rocky Mountain Juniper	\$8.99	\$13.99	\$23.99
Globe Arborvitae	\$8.99	\$12.99	\$31.99
Pyramidal Arborvitae	\$11.99	\$16.99	\$34.99
Japanese Yew	\$11.99	\$24.99	
Mugo Pine	\$8.69	\$19.99	
Black Hills Spruce	\$10.99	\$16.99	\$21.99
Colorado Spruce	\$9.99	\$15.99	\$20.99
Ponderosa Pine	\$8.99	\$16.99	\$20.99
White Pine	\$8.99	\$16.99	\$20.99
Scotch Pine	\$8.99	\$16.99	\$20.99
Larch*	\$6.99	\$12.99	\$18.99

*deciduous

Shade Trees	Bare Root	2-4 feet (height)	4-7 feet (height)	5-12 feet (height)	8-14 feet (height)
All common varieties	\$3.49	\$16.99	\$21.99	\$43.89	\$72.99
Maples (All Varieties)		Buckeye		Birch (All Varieties)	
Ash		Walnut		Poplar	
Aspen		Cottonwood		Oak	
Willow (All Varieties)		Linden (All Varieties)		Elm	
Russian Olive		Mountain Ash		Hawthorn	

Ornamentals

Variety	1 gal.	2 gal.	5 gal.
Flowering Crab	\$5.99	\$8.99	\$17.99
Flowering Plum	\$5.99	\$8.99	\$17.99
Chokecherry (A.V.)	\$4.99	\$8.99	\$16.99
Lilac	\$8.99	\$16.99	
Mockorange	\$13.99	\$18.99	
Japanese Barberry	\$11.99	\$17.99	
Dogwood	\$9.99	\$16.99	

Shrubs and Hedges

Caragana	\$3.89	\$6.89
Cotoneaster	\$3.89	\$6.89
Potentilla	\$4.29	\$8.29
Tallhedge	\$4.39	\$7.89
Rhododendron	\$15.99	\$34.99

Misc.

Artemesia	\$1.79/4"pot	
Clematis	\$2.79/4"pot	
Boston Ivy	\$4.49/4"pot	
Virginia Creeper	\$4.69/4"pot	
Yucca	\$2.89/4"pot	\$4.79/6"pot
Wood Chips (2 cu. ft. bag)	\$4.75/bag	



CAMPUS GARDEN CENTER ORDER FORM

222 2ND AVENUE NORTH

FARGO, ND 58000

PHONE: 701.237.0000

Order Date 06/06/12	Customer Name Mr. I M Gone	
Address 2034 2nd Ave. S, Fargo, ND		Phone 701-799-2223
Billing Cash <input type="checkbox"/> Charge <input checked="" type="checkbox"/>		
Deliver <input checked="" type="checkbox"/> Pick-up <input type="checkbox"/>		Credit Card Number: Master Card 8765-9988-6500-2109 Exp: 07/2012
Delivery Instructions: to address above. Blue sided house Leave Mugo pine and 1 bag of mulch on driveway.		
Items	COST/UNIT	TOTAL
Caragana or Cotoneaster (12) 1 gal container	\$ 3.89	\$ 46.68
Mugo Pine (2)	\$ 8.69	\$ 17.38
Wood Chips (7 bags)	\$ 4.75	\$ 33.25
Answer to bug question- WHITE GRUB		
Plant shrubs in marked locations and mulch them, 1/2 bag each plant.		
Sub-total		\$97.31
Tax 6%		\$5.84
Installation Cost		\$63.25
TOTAL PRICE		\$ 166.40
Salesperson 2012 State Key		Chapter North Dakota FFA Association

2012 State Key

North Dakota State FFA Nursery/Landscape CDE 2012

JUDGES SHEET

Information offered to the contestant

I need to replace the hedge on the West side of my house, due to winter burn. I have already torn out the old plants. I am looking for small size plants. The area is 60 ft. in length where I want them planted. I also want wood chips for mulch.

I also have a question about some bugs I have found as I was removing my old hedge plants. They are worm like, white in color, but have a brown head capsule, a C-shaped body, three pairs of legs, and a slightly enlarged abdomen. What are they?

Information that will be given to the contestant when asked for:

Looking for a price range between \$3.75 and \$4.00 per shrub, and I want 12 shrubs. I will have the location of shrubs marked.

I want ½ bag of wood chips around each shrub.

I want the installation of shrubs and mulch to be provided by the Garden Center.

Would like installation to be the morning of June 16, 2012

Charge to my MASTER Card; 8765 9988 6500 2109 Exp date 7/12 (only give number when asked)

Name: Mr. I M Gone
2034 2nd Ave South
Fargo, ND 58102 Ph; 701-799-2223
My house has blue siding.

When the contestant is closing the sale and asks for anything else, you will ask for 2 small Mugo Pines and one (1) bag of wood chips. These all are to be left on the driveway.