

**2010 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. Which type of mower is generally used on golf greens for regular mowing?
A. Vertical mower
B. Rotary mower
C. Reel mower
D. Flail mower
2. The water table should be _____ of the soil surface for most plants in growing the landscape.
A. within 12"
B. between 18 and 24"
C. within 24"
D. well below 24"
3. Many insects are attracted to _____, which is the color often used in sticky tapes.
A. Yellow
B. Red
C. Violet
D. Black
4. 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.
5. Many landscape equipment engines require a little extra fuel in the carburetor to start. Most models use a(n) _____ to supply the extra fuel for starting.
A. slinger gear
B. primer bulb or choke
C. fuel cell or fuel slide
D. turbine
6. Which of the following can be added to soil in order to increase pH?
A. glucose
B. powdered lime
C. sulfur
D. water
7. The most important benefit of using mulch around landscape plants is to:
A. conserve soil moisture.
B. maintain soil temperature.
C. add nutrients.
D. adjust soil texture.
8. What gives green leaves their color?
A. Chlorophyll
B. Sugars
C. Carbon Dioxide
D. Oxygen
9. PVC pipe is assembled in the irrigation system using _____.
A. wax
B. solder
C. glue
D. hemp packing
10. 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-borne nutrients
11. 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

12. If a customer wants an organic fertilizer, which of the following would be the best choice?
- A. Sodium Chloride
 - B. Leaf Mulch
 - C. Pine Needles
 - D. Sheep manure
13. Which item would be a fixed cost of running a landscape maintenance company?
- A. tractor payments
 - B. weed barrier & bark mulch
 - C. meal expenses
 - D. employee holiday bonuses
14. Which of these describes the best way to prepare earplugs for insertion into your ears?
- A. heat to body temperature
 - B. both stretch and twist the earplug
 - C. remove from a co-workers head
 - D. roll the earplug in your hands
15. Soils used for starting seeds and root cuttings in the nursery should be:
- A. sterilized
 - B. homogenized
 - C. pasteurized
 - D. stratified
16. Crown Gall is caused by:
- A. Fertilizer
 - B. Insects
 - C. Bacteria
 - D. High sap pressure
17. The word 'alba' in a plant name usually means that the blooms will be:
- A. red.
 - B. blue
 - C. white.
 - D. pink.
18. Which of the following mulches most often becomes moldy when it is wet and applied too thick?
- A. Fresh Grass Clippings
 - B. Pumice
 - C. Glass bead
 - D. Shredded Bark
19. 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.
20. 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
21. Plants intended for resale to the consumer are purchased by businesses such as garden centers and landscape companies from _____ nurseries.
- A. certified
 - B. wholesale
 - C. mill
 - D. privately owned
22. A biological agent or virus that can cause a disease is known as a(n):
- A. BSE
 - B. Bactericide
 - C. Pathogen
 - D. Prion
23. Cuttings of plants that are difficult to root are often _____ to increase the surface area for rooting and applying rooting hormone.
- A. de-barked
 - B. pinched
 - C. pruned
 - D. wounded
24. 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

25. How are cold frames normally used in plant production nurseries?
A. to provide moisture control
B. to eliminate disease & insects
C. to provide low temperature protection
D. to eliminate snow scald
26. What term is used to describe the crossing of two un-alike plants, resulting in offspring that are better than either of the parents?
A. crossbreeding
B. heterosis
C. genetic gain
D. symbiosis
27. Which of these is a safety feature on a chainsaw?
A. Chain Brake
B. Braille Instructions
C. Back up horn
D. GFCI switch
28. Insects are categorized into two major feeding types for control purposes. These are _____ feeders.
A. xylem and phloem
B. day and night
C. top and bottom
D. chewing and sucking
29. Many insect traps use chemical attractants called _____ to lure insects into the trap.
A. catalysts
B. fungicides
C. pathogens
D. pheromones
30. Foundation plants of a home landscape that are arranged to move the viewer's eye to the front door of the home is an application of this principle of design.
A. diversity
B. balance
C. focalization
D. simplicity
31. Plants that have gracefully drooping limbs are often described in horticultural terms as being _____.
A. withering
B. floppy
C. weeping
D. sagging
32. Which of the following would be the least desirable material to be used as a soil amendment?
A. fresh saw dust
B. aged manure
C. composted leaves
D. peat moss
33. Repetition of plants or groups of plants in the landscape helps to achieve which principle of design?
A. Focalization
B. Unity
C. Balance
D. Variance
34. Which process occurs the longest into the fall in the developing tree?
A. cork growth
B. root growth
C. fruit set
D. trunk radius growth
35. Which of the following is true about flower parts?
A. the pollen is male
B. the filament is female
C. the stigma is male
D. all of these are true
36. Small, corky pores along the stem that allow for gas exchange between the atmosphere and plant cells are:
A. bud scales
B. internodes
C. terminal buds
D. lenticels
37. The modification/weakening of a seed coat so that the seed may germinate is called:
A. cold-stratification
B. warm-stratification
C. double stratification
D. scarification

38. A method of lawn establishment that uses cores or small pieces of turf planted a few inches apart is known as:
- A. Plugging
 - B. Perforation Mottling
 - C. Perforation
 - D. Zitting
39. 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
40. The openings around soil particles that hold air or water are called:
- A. reservoirs
 - B. bubbles
 - C. stoma
 - D. pore spaces
41. The skeletal structure found on the outside of an insect's body is called:
- A. armor.
 - B. exoskeleton.
 - C. gross.
 - D. skin.
42. A common fungal disease infecting newly germinated seeds and seedlings is:
- A. black spot
 - B. fire blight
 - C. gout
 - D. damping-off
43. This organism is both the smallest and has no pesticide to control the diseases it causes.
- A. Bacteria
 - B. Fungus
 - C. Thrip
 - D. Virus
44. 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
45. Which of the following is not a term used in turf irrigation system installation?
- A. rain sensor
 - B. pop-up sprinkler
 - C. vertical valve
 - D. backflow prevention valve
46. The horticultural term for the premature or unwanted production of flowers and seeds is:
- A. Bolting
 - B. Pregnancy
 - C. Tillering
 - D. Puberty
47. When mowing turf, it is recommended that no more than _____ of the leaf blade be removed at each cutting.
- A. 1/16
 - B. 1/4
 - C. 1/3
 - D. 3/4
48. 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
49. The home landscape is generally divided into three areas, the private, service and _____ area.
- A. formal
 - B. foundation
 - C. public
 - D. neighboring
50. If a plant does not "breed true" from seeds, you would expect:
- A. most of the offspring to be of average quality.
 - B. most of the offspring to exhibit hybrid vigor.
 - C. all of the offspring to be sterile.
 - D. a genetic variation in the offspring.

**2010 ND State FFA
Nursery/Landscaping Career Development Event
Written Exam Key**

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

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	

North Dakota State FFA Nursery/Landscape CDE 2010

Judges Sheet

Information offered to the contestant

All of my shrubs around the house were damaged by snow and ice this past winter. I have torn them out and want to replace them. I also want to put wood chips down for mulch.

Information provided when requested by the contestant

I would like six (6) Globe Arborvitae, the smallest you have,
four(4) Globe Arborvitae, the largest available,
and lastly one (1) Larch, the largest you carry.

The 2 areas for the wood chips and plantings are each;
4' wide X 12' long, located on both sides of my front porch.

I would like you to put wood chips in the area.

I would like to have them installed by June 26, 2010

I will have locations marked for the plantings

I will pay cash upon completion.

Name: Ole Benloggin
1211 Forest Ave North
Fargo, ND 58102
Phone: 701-252-4228
Cell: 218-840-3366

Light Blue House with attached garage