

2017 MN FFA Nursery/Landscape Exam

Directions: Select the best answer for each question and mark your selection on the scantron provided. Using a #2 pencil, black out completely the letter on the answer sheet that corresponds to the best answer for each item.

1. A dichotomous key in horticulture is:
 - A. used to identify unknown plants.
 - B. a computerized master key for landscape equipment.
 - C. used to analyze the profitability of specific crops.
 - D. used to determine the growth-area ratio.
2. A disorder of plants called 'wind burn' is a visual representation of:
 - A. wind friction to plant stems.
 - B. abrasion by particles carried by the wind.
 - C. hydration of plant tissues.
 - D. desiccation of plant tissues.
3. On which group of plants is the practice of "dead-heading" usually performed?
 - A. annuals
 - B. groundcovers
 - C. broadleaf evergreens
 - D. deciduous azaleas
4. A multi-strategy practice that reduces human and environmental risks to economically maintain or control pests below levels of significant economic and environmental damage is called:
 - A. Integrated Plant Management.
 - B. Integrated Pest Management.
 - C. Integrated Plant Material.
 - D. Integrated Pest Material.
5. A plant that is propagated by sexual reproduction (seed) is:
 - A. genetically the same as the parent plant.
 - B. a clone.
 - C. generally not a genetic duplicate of the parent plant.
 - D. genetically superior to asexually produced plants.
6. A residential concrete walk from the driveway to the front door should generally be at least:
 - A. 20 inches wide and 2 inches thick.
 - B. 6 feet wide and 6 inches thick.
 - C. 20 inches wide and 8 inches thick.
 - D. 36 inches wide and 4 inches thick.
7. Underground stems of turf grasses are known as:
 - A. lenticels.
 - B. stolons.
 - C. rhizomes.
 - D. tendrils.

8. Which of these soil particles is the smallest in particle size?
- A. clay
 - B. pebbles
 - C. sand
 - D. silt
9. When is the most desirable time to prune a common lilac shrub?
- A. as soon as it goes dormant in the fall.
 - B. as soon as it starts to leaf out in the spring.
 - C. right after it has finished blooming in the spring.
 - D. mid-winter when it is dormant.
10. An inorganic growing media ingredient made from volcanic rock is:
- A. vermiculite.
 - B. perlite.
 - C. peat.
 - D. sphagnum.
11. Soil compaction and loss of permeability are most likely on soils that contain which of the following?
- A. large amounts of humus
 - B. a high percentage of sand
 - C. a large number of stones
 - D. a high percentage of clay
12. Which flower part is responsible for producing pollen grains?
- A. stigma
 - B. filament
 - C. anther
 - D. embryonic sac
13. The yellowing of plant vegetation due to a reduced amount of chlorophyll is called:
- A. chlorophyllitis.
 - B. cellulitis.
 - C. chlorosis.
 - D. cytokinesis.
14. Glyphosate (Roundup) should be used carefully when spot-spraying weeds in the landscape because:
- A. it will kill the grass and other vegetation along with the weeds.
 - B. it will not kill the weeds unless drift is prevented and spray is highly concentrated.
 - C. spot spraying allows a higher chance of skin contact than most applications.
 - D. Roundup should not be used as a spot spray.
15. Which type of mower is used to mow golf greens?
- A. vertical mower
 - B. rotary mower
 - C. reel mower
 - D. flail mower

16. This nutrient is generally required in higher concentrations for plants than any other fertilizer component.
- A. nitrogen
 - B. phosphorous
 - C. iron
 - D. calcium
17. The amount of money a business owner has left after all deductions for expenses have been made is his/her _____.
- A. marginal revenue
 - B. net profit
 - C. cost summation
 - D. marginal total
18. A tree or shrub that is used alone for accent or as a focal point is called a _____.
- A. specialist plant
 - B. specimen plant
 - C. solo plant
 - D. singular plant
19. Working soils when they are excessively wet, especially with a tractor, rotary tiller, etc., can destroy:
- A. soil structure.
 - B. organic matter.
 - C. inorganic matter.
 - D. soil texture.
20. Plants that have gracefully drooping limbs are often described in horticultural terms as _____.
- A. undulating
 - B. floppy
 - C. weeping
 - D. sagging
21. In landscapes where the soil has become compacted, oxygen levels can be increased by the use of a(n):
- A. air spade.
 - B. thatcher.
 - C. aerator.
 - D. water spade.
22. When sun-loving plants are grown in too much shade, they tend to:
- A. be tall and leggy.
 - B. be short and compact.
 - C. flower more abundantly.
 - D. need more water and fertilizer.
23. Which of these are not elements essential to plant growth and development?
- A. W, Ta, Au
 - B. Fe, Cu, Mn
 - C. C, H, O
 - D. Ca, Mg, S

24. Which of the following is not a part of plant cells?
- A. mitochondria
 - B. lignin
 - C. chloroplasts
 - D. paragrphists
25. How are cold frames normally used in landscape plant production nurseries?
- A. to provide moisture control
 - B. to provide protection from insects and disease
 - C. to provide winter protection
 - D. all of the above
26. A water feature and patio are most appropriate in the _____
- A. public
 - B. private
 - C. service
 - D. foundation
27. 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. exhaust valve or flywheel
 - B. primer bulb or choke
 - C. fuel cell or fuel slide
 - D. cylinder or fuel ring
28. Two of the most pressing current issues impacting the landscape maintenance industry include
- A. the exotic garden spider and Japanese ladybugs.
 - B. turf decline and herbicide resistance.
 - C. emissions and noise pollution.
 - D. power blower and string trimmer safety.
29. Which of these is the best definition of an invasive plant?
- A. a plant with roots that extend 5 feet or more into the soil
 - B. a plant that is difficult to keep in containers because of its aggressive growing habits
 - C. a plant that spreads out horizontally, and produces seeds prolifically
 - D. a plant with the ability to thrive and spread aggressively outside of its natural range
30. Which plant tissue carries water and nutrients from the plant roots to the stems and leaves?
- A. phloem
 - B. cambium
 - C. xylem
 - D. rhizome
31. Which of the following is a turfgrass disorder associated with buried wood/stumps, etc.?
- A. Brown patch
 - B. Fairy ring
 - C. Rust
 - D. Leaf spot

32. One of the best landscape plants for great fall leaf color is:
- A. *Quercus rubra*
 - B. *Juniperus chinensis*
 - C. *Pinus strobus*
 - D. *Acer saccharum*
33. Plant containers in the nursery trade are generally measured by the:
- A. liter.
 - B. height.
 - C. circumference.
 - D. gallon.
34. Some organizations, universities, and individuals maintain old plant varieties that are poor producers compared to modern varieties. What is the best reason these varieties should be maintained?
- A. genetic diversity
 - B. sentimentality
 - C. authenticity
 - D. medicinal sources
35. Which of the following is generally true of safe pesticide or pesticide container disposal?
- A. Empty metal, plastic or glass pesticide containers should be rinsed out three times.
 - B. Pesticides should be disposed of down a drain or poured onto the ground in secluded areas.
 - C. Un-used pesticides should be applied to open land and plowed evenly into the soil.
 - D. Pesticide containers should be put into large plastic bags and burned.
36. Which of the following is the correct ranking of chemical signal words from least toxic to most toxic?
- A. Warning, Poison, Caution
 - B. Poison, Caution, Corrosive
 - C. Warning, Caution, Poison
 - D. Caution, Warning, Danger
37. A one-story ranch-style home probably should be framed with relatively short trees (mature height) to provide for proper _____
- A. scale
 - B. balance
 - C. unity
 - D. clarity
38. If a container crop is continuously over-watered:
- A. roots will begin to die from the bottom of the pot.
 - B. roots will start dying from the top of the pot.
 - C. stem rot along the soil line will likely develop.
 - D. roots will twine around the outside edges of the soil ball.

(Over)

39. Most plant diseases are caused by:
- A. mold and mildew.
 - B. bacteria, fungi, and viruses.
 - C. viruses and nematodes.
 - D. molds, nematodes, and mildew.
40. Which two protective items must be worn when operating a gas powered string trimmer (certain other items are recommended but optional)?
- A. hearing protection and eye protection
 - B. eye protection and chaps
 - C. hard hat and steel-toed boots
 - D. chaps and respirator

2017 MN FFA Nursery/Landscape Exam Key

1. A	21.C
2. D	22.A
3. A	23.A
4. B	24.D
5. C	25.C
6. D	26.B
7. C	27.B
8. A	28.C
9. C	29.D
10.B	30.C
11.D	31.B
12.C	32.D
13.C	33.D
14.A	34.A
15.C	35.A
16.A	36.D
17.B	37.A
18.B	38.A
19.A	39.B
20.C	40.A