

**NATIONAL FFA NURSERY/LANDSCAPE
CAREER DEVELOPMENT EVENT
GENERAL KNOWLEDGE EXAM
2012**

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

1. An agriculture teacher was teaching plant parts and trying to give her students a good way to remember the definition of each part. One student wrote the definitions down but got one wrong. Which of these is wrong?
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 - A. endosperm: the male portion of the flower
 - B. stolon: a creeping horizontal plant stem or runner that grows on the ground
 - C. rhizome: an underground stem that can rise up to form a new plant
 - D. internode: the section of stem in between two nodes

2. If the temperature dips below freezing for several days, which of these plants would most likely NOT survive in the landscape without protection?
*
 - A. Wax Begonia
 - B. Pansy
 - C. Cotoneaster
 - D. Forsythia

3. Hedges, a common feature in many landscapes, are commonly used to do all of the following EXCEPT:
*
 - A. define property lines and buffer noises
 - B. provide privacy and block strong winds
 - C. block the view of unpleasing objects
 - D. define legally binding property boundaries

4. Which of these best defines simplicity in landscape beds?
*
 - A. use several plant species; separate plants so they will not touch at maturity; use sharp-curved bed lines
 - B. use only a few plant types; use gently curving bed lines; mass like plants together
 - C. use only two of each of six or more plant species; do not mass plants; do not put like plants together
 - D. use many curves in the bed lines; use several species of plants; avoid massing plants together

5. An example of items commonly used as a focal point in the non-public area of the home landscape are:
*
 - A. specimen plants, birdbaths, statuary, and fountains.
 - B. large trees, the front door, concrete walls, and windows.
 - C. tall single-trunk trees, walkways, and vegetable gardens.
 - D. turf pads, tall plants, and hedges.

6. The slope of the home landscape should be graded so that the:
*
 - A. lot slopes toward the home between .5 and 1 percent so that rainwater is directed to the foundation
 - B. slope is as near level as possible
 - C. lot has a gentle slope away from the foundation
 - D. lot slopes toward the house 1 percent or more so that the foundation plants serve as a catch basin

7. When heat is used to pasteurize potting soil, the soil should be heated to about:
- A. 100 degrees for 30 minutes
 - B. 115 degrees for 1 hour
 - * C. 180 degrees for 30 minutes
 - D. 190 degrees for 4 hours
8. The practice of _____ is often used to quickly stabilize steep embankments.
- A. plugging
 - B. stolonizing
 - * C. hydroseeding
 - D. enviro-seeding
9. Subcontractors on large landscape installations may be used to:
- A. install a fountain
 - B. install an irrigation system
 - C. grade the site
 - * D. all of the above
10. All of the following are landscape lighting types used for various lighting effects EXCEPT:
- A. up lighting
 - B. down lighting
 - C. silhouette lighting
 - * D. sketch lighting
11. If the architecture of the structure being landscaped is symmetrical, then a _____ landscape would probably fit best.
- A. asymmetrical
 - * B. symmetrical
 - C. bilateral
 - D. vertical
12. Generally, _____ focal point(s) should be seen by the viewer from any one point in the landscape.
- * A. no more than one
 - B. all landscape
 - C. only two to five
 - D. only two
13. The planting season of _____ is generally restricted to the late fall through early spring.
- * A. bare-root shrubs and trees
 - B. containerized shrubs and trees over 5 gallons
 - C. containerized shrubs and trees less than 5 gallons
 - D. herbaceous plants
14. Which of the following is the LEAST important question to ask while interviewing the client about a total home landscape plan?
- A. How many cars are in the family?
 - B. What are the hobbies or special interests of the family members?
 - C. Tell me about your pets?
 - * D. Where does the family like to go on vacation?

15. Material safety data sheets (MSDS) are best obtained from:
- A. the USDA.
 - B. wholesale nurseries.
 - * C. the manufacturer of the product.
 - D. the State Department of Agriculture.
16. Which of these is used to record the slope of different areas of the property?
- A. genome map
 - * B. contour map
 - C. eco-map
 - D. enviro-map
17. Generally, which of the following is true about the foliage texture of landscape plants?
- * A. small leaved plants give a fine textured appearance
 - B. large leaved plants provide a pubescence textured appearance
 - C. coarse textured plants should not be used near fine textured plants
 - D. fine textured plants should not be used in the foundation
18. If landscape plants need severe pruning, generally it is best done in the:
- A. summer when the plants are actively growing
 - * B. winter when the plants are dormant
 - C. spring just as the buds begin to break
 - D. spring just after the plants are in full leaf
19. A very large tree next to a one story home would make the house appear _____ to the viewer and violates the principle of proportion.
- A. longer
 - B. wider
 - C. larger
 - * D. smaller
20. Which of these is true of cloned plants?
- A. Meiosis is a part of the cloning process that produced the plant.
 - B. Cloned plants are genetically superior to the parent plant.
 - * C. Cloned plants are genetic duplicates of the parent plant.
 - D. Cloned plants are genetically superior to plants propagated from seed.
21. Which of these is a governmental agency with duties that include preventing the importation of plant diseases, insects, and non-native invasive species?
- A. PLANET
 - * B. APHIS
 - C. NLCA
 - D. OSHA
22. A fertilizer with an analysis of 5-10-15 contains _____ percent magnesium.
- A. 5
 - B. 10
 - C. 15
 - * D. The percent magnesium cannot be determined from the information given.

23. The total value of goods and services sold over a given period of time is defined as:
- A. marginal sales
 - B. gross profit
 - * C. gross sales
 - D. marginal revenue
24. The three most distinct areas of a residence to be landscaped are known as:
- * A. public, private, and service
 - B. front, back, and extended
 - C. commercial, residential, and private
 - D. commercial, service, and public
25. When planting seeds, the most important factor to consider in determining how deep to plant the seed is the:
- * A. size of the seeds
 - B. viability of the seeds
 - C. soil temperature
 - D. depth of the topsoil
26. Which of these plants can best survive freezing temperatures in the landscape?
- A. Marigold
 - B. Zinnia
 - C. Impatiens
 - * D. Pansy
27. To help assure that granular fertilizer is spread evenly over the lawn it is best to:
- A. broadcast the fertilizer by hand
 - * B. spread one-half of the fertilizer in one direction and one-half at right angles to the first direction
 - C. use a drop spreader with a setting of seven to nine
 - D. use a drop spreader with a setting of nine or ten
28. Other than a three dimensional model of a proposed landscape project, nothing allows a better visualization of the proposed design than a _____.
- A. base map drawing
 - * B. perspective drawing
 - C. contour display
 - D. plot plan drawing
29. Which of these are NOT traditional drawing tools used in drawing landscape plans?
- A. protractor, compass, scale
 - B. T-square, triangle, lettering template
 - C. French curve, erasers, flexible curve
 - * D. bow arch, twist curve, inch meter
30. Maintaining the proper soil pH is a must for the efficient use of other crop inputs. Understanding that soil pH controls the _____ is important for plant producers.
- * A. availability of most nutrients
 - B. amount of moisture available to the plant
 - C. germination of most crop seeds
 - D. effectiveness of herbicides

31. A plant transplanted into the landscape or potted into a larger pot should be planted:
- A. about 2-3 inches deeper than it was originally growing
 - B. about 2-3 inches higher than it was originally growing
 - * C. at the same depth it was originally growing
 - D. so that at least one inch of the main stem is covered
32. The following size trees were advertised in a wholesale catalog. Which tree is the largest?
- * A. 6 inch caliper
 - B. 18 - 24 inch whip
 - C. 5 - 6 feet
 - D. It is impossible to determine by the information provided
33. A soil that contains nearly equal amounts of sand, silt, and clay is called a(n) _____.
- A. sandy, silty clay soil
 - * B. loam
 - C. silty clay
 - D. equilaterally textured soil
34. Which of these are NOT terms used for irrigation materials and equipment, or in irrigation calculations?
- A. velocity, pressure rated pipe, rotary head
 - B. impact drive head, gear drive head, emitter
 - C. precipitation rate, drip tubing, pop-up head
 - * D. pressure site, surge gate, micro header
35. A common choice for producing plants in poorly drained sites is to:
- * A. use raised beds
 - B. incorporate clay into the site
 - C. install drying tubes
 - D. establish moisture zones
36. Which of the following is a hybrid cross between a red maple and silver maple?
- * A. *Acer x freemanii*
 - B. *Acer palmatum*
 - C. *Acer rubrum* 'October Glory'
 - D. *Acer platanoides*
37. Which of the following would need the most protection from hot and dry locations in the landscape, especially the hot afternoon sun?
- * A. Gardenia
 - B. Red Maple
 - C. Sweet Gum
 - D. Bermudagrass
38. A good growing medium for potted crops contains solids, air, and water. The medium, by volume, should be _____ percent solids with the balance made up of air and water.
- * A. 30 to 50
 - B. 75 to 90
 - C. 85 to 95
 - D. 95 to 99

39. Which of these in a home compost pile serves as an inoculant by adding beneficial microorganisms to the compost pile?
- A. plant parts killed by disease
 - * B. topsoil
 - C. leaves
 - D. limbs
40. It is important to keep the air filter on a lawn mower clean and free of debris to:
- A. prevent crankcase fatigue
 - B. keep the spark plug clean and in operating condition
 - C. prevent oil reservoir contamination
 - * D. prevent dust and debris from entering the carburetor
41. Which of the following statements is true about applying fertilizer to a lawn?
- A. lawn fertilizer should always be applied as a dry, granular product
 - B. it is best to apply fertilizer in the morning when the grass is wet from the morning dew
 - C. modern lawn fertilizer should always be applied as a liquid
 - * D. it is a good practice to water-in fertilizer that is applied to the lawn in granular form
42. The USDA Plant Hardiness Zone Map is based on the _____ for an area.
- * A. minimum expected temperatures
 - B. maximum expected temperatures
 - C. weather and soil characteristics
 - D. all of the above
43. A Slow Moving Vehicle sign is required on the back of any farm vehicle or implement that travels on the road at less than 25 miles per hour. Which of these best describes a Slow Moving Vehicle sign?
- A. a sign with a yellow border and black center
 - B. a green and white sign with the words 'Slow Moving Vehicle' in black lettering.
 - * C. a fluorescent yellow-orange triangle with a dark red reflective border
 - D. a red sign with the reflective letters 'SMV' in the center
44. The success of a compost pile in the process of decomposition can be estimated to some degree by the:
- * A. amount of heat given off
 - B. type odor given off
 - C. color of the exterior surface
 - D. moisture generated in outer-most layers
45. Auxin is:
- A. a growth inhibitor used in the production of dwarf landscape plants
 - B. the capital of Texas and an area known for landscape plant production
 - * C. a hormone produced in the terminal bud; it accounts for apical dominance and is used in rooting cuttings
 - D. a pesticide used to control white flies and certain other insects on ornamentals
46. A _____ is a material added to a liquid spray solution to reduce surface tension between the liquid and the leaf surface.
- A. pheromone
 - B. condensate
 - * C. surfactant
 - D. flocculent

47. Which of these is a reason to recommend the selection of a grass seed blend of two or more grass species rather than the seed of a single species?
- * A. the client has a combination of sunny and shady locations in the area to be planted
 - B. the slight color contrast of different grass species adds interest to the landscape
 - C. a blend of grass species helps reduce grass allergies
 - D. grass blends are easier to irrigate and fertilize
48. Which of these is sometimes planted to hold the soil in place until a permanent turfgrass can be established?
- * A. Annual Ryegrass
 - B. Bermudagrass
 - C. Bentgrass
 - D. Annual Bluegrass
49. For maximum benefits and cost effectiveness, mulch is generally applied about ____ inch(es) deep around landscape plantings.
- A. 1
 - * B. 3 - 4
 - C. 10
 - D. 10 - 16
50. Soil sample cores from the lawn should be taken about ____ inch(es) deep.
- A. 1
 - B. 3
 - * C. 6
 - D. 14

End
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