

1. Plants that have been clipped or pruned into two-dimensional forms are:
 - A Balanced
 - *B Espalier**
 - C Dynamic
 - D Topiary
2. _____ drawings show an object as seen by the eyes at eye-level.
 - A Plan
 - B Section
 - C Base map
 - *D Perspective**
3. The description “produces large numbers of new plants, spreads easily, tolerates many soil types, grows rapidly, displaces native and slower growing plants, and spreads rampantly” best describes _____ plants.
 - *A invasive**
 - B oriental
 - C continental
 - D native
4. The approximate range of average annual minimum temperature for Plant Hardiness Zone 7a is:
 - A –30 to –20 degrees
 - *B 5 to 10 degrees**
 - C 20 to 30 degrees
 - D –20 to –10 degrees
5. The classifications of soil particles based on size, from largest particle to smallest particle, are sand, silt, and:
 - A Shale
 - B Loam
 - C Gravel
 - *D Clay**
6. Food produced in the leaves moves to other parts of a plant through the _____.
 - A Xylem
 - B Arteries
 - C Veins
 - *D Phloem**
7. Which signal word for pesticide labels indicates the lowest level of toxicity?
 - A Careful
 - B Warning
 - *C Caution**
 - D Danger

8. The following plant grows from a tuber:
- A Impatiens
 - *B Elephant Ear**
 - C Celosia
 - D Japanese honeysuckle
9. Fred was about to drive the tractor down the street to another landscape job when Alan said, "Hey, you had better put that orange triangle on the back of that tractor before you get run-over." Alan was referring to the:
- A Emergency vehicle sign
 - B Farm vehicle sign
 - *C Slow-moving vehicle sign**
 - D Wide-load sign
10. Mr. Roberts told his horticulture class that the temperature for rooting shrubs should be no lower than 70 °F. He was referring to the:
- A Temperature of the mist water
 - B Air temperature at bench level
 - C Air temperature above the bench
 - *D Temperature of the rooting media**
11. A landscaper should call 811 before beginning certain landscape projects to:
- A submit their environmental impact license number and request EPA approval.
 - *B request assistance in locating underground utilities**
 - C request a check of proper zoning
 - D obtain a permit before digging
12. Soil texture refers to:
- A The amount of humus in the soil
 - B The arrangement of soil particles
 - *C The size of the soil particles**
 - D The ratio of sand to clay in the soil
13. In the name *Acer palmatum* "October Glory," "October Glory" is a _____ if it did not occur as a natural mutation
- A Species
 - *B Cultivar**
 - C Variety
 - D Genus
14. To increase the bushiness of a flowering plant while the plant is young, one should:
- A Increase the nitrogen in the soil surrounding the plant
 - B Increase the amount of water the plant receives
 - *C Pinch the stem tips of the plant**
 - D Apply a growth retardant

15. One characteristic of Roundup (glyphosate) that customers sometimes object to is
- A That it temporarily stains the soil surface orange
 - B Its long lasting effects
 - *C That it takes several days to kill weeds**
 - D That it is extremely toxic to pets
16. The process in which water, grass seed, fertilizer, cellulose fiber and a glue type material are mixed together and sprayed onto the soil to establish turf is called_____.
- A Pressure spray
 - B Seed Injection
 - *C hydroseeding**
 - D top dressing
17. Plants need _____ essential elements for proper growth and development.
- *A 17**
 - B 3
 - C 8
 - D 32
18. When propagating woody cuttings, a growth promoting substance is sometimes applied to the base of the cuttings in order to
- A speed the healing process
 - B conserve moisture in the cuttings
 - *C all of these**
 - D speed the development of roots on the cutting
19. Leaf miners lay their eggs:
- A On flower buds
 - B On top of leaves
 - *C Inside the leaves**
 - D On the main stem
20. A plant that produces flowers that have either stamens or pistils, but not both on the same plant is called:
- *A Dioecious**
 - B Angiosperm
 - C Monoecious
 - D Staminate
21. The best type of sand to use in soil mixtures for container grown plants is:
- A Beach
 - B White, fine-textured
 - *C Coarse textured**
 - D Fine-textured

22. When mowing Bermuda grass lawns, what is the general range for the proper height of cut?
- A 5"
 - B 4"
 - *C 1.5 to 2.5"**
 - D 3 to 4"
23. Fertilizers should be added to soil
- A every year
 - *B based on soil test results**
 - C according to the package instructions and only in the water
 - D at 1/2 the rate of fertilizer
24. Recommended service intervals for jobs such as changing the oil in motorized landscape equipment, is usually measured in ____ of operations.
- A days
 - B miles
 - *C hours**
 - D months
25. Plowing or tilling a bed or lawn when it is excessively wet may:
- A Stratify the soil
 - B Change the soil texture
 - C Kill beneficial organisms in the soil
 - *D Damage the structure of the soil**
26. Which of the following government organizations would want to talk to you if you shipped nursery plants across state lines without a license?
- *A USDA**
 - B FBI
 - C IRS
 - D OSHA
27. Joe's Landscaping pays rent, legal fees, utilities and insurance, all of which are classified as
- A contingency costs
 - B marginal costs
 - C variable costs
 - *D overhead costs**
28. Plants that evolve and grow naturally in an area are termed _____ plants
- A Exotic
 - *B Native**
 - C Specimen
 - D Accent

29. The viability of a group of seeds is measured by:
- A The number of seeds per pound
 - B Maturity of the seeds
 - *C The germination percentage**
 - D Permeability of the seeds
30. Failure to firm down the soil around a newly planted tree or shrub can result in air pockets. This may cause:
- *A Drying of plant roots**
 - B Over-watering problems
 - C Soil heaving in winter
 - D Disease
31. The terms triploid, diploid and haploid refer to
- A number of flowers per stem
 - B number of bud breaks expected after pruning
 - *C number of chromosomes**
 - D formation of leaves
32. Examples of cool season grasses include perennial ryegrass, bentgrass, and:
- *A Fescue**
 - B Bermudagrass
 - C St. Augustine
 - D Zoysia
33. In nursery production, a “liner” refers to
- A A plastic bag
 - B A plastic mulch covering
 - *C A rooted cutting or small seedling**
 - D A type of garden tool
34. Hardiness refers to:
- *A The quality of being strong and being able to survive in a certain region**
 - B The hardness of the soil in which a plant is being planted
 - C The ability of a plant to grow indoors
 - D The strength of the wood of a tree
35. Which of the following statements is NOT true?
- *A Frost is most likely to form when there is low, heavy cloud cover and a slight cool breeze.**
 - B The heat given off from water sprinkled over plants may prevent frost from forming if the temperature is only slightly below freezing.
 - C Frost is more likely to form in low lying areas or pockets, when temperatures are at the freezing point
 - D Frost may form if the sky is clear, the air is calm and the night temperature is only slightly below freezing?

36. For control purposes, insects can be categorized into two major feeding types. These two types are:
- *A chewing and sucking feeders**
 - B abrasion and epidermis feeders
 - C shredding and thatching feeders
 - D leaf and xylem feeders
37. A method of fertilizer application is
- *A Side dressing**
 - B Leaching
 - C Sterilization
 - D Pasteurizing
38. An “x” in the botanical name of a plant means the plant:
- A Comes true to type from seed and vegetative propagation
 - B Has been grafted
 - *C Is a true hybrid**
 - D Comes true to type from only seed propagation
39. Callus is a term usually referring to:
- A A disease of plant leaves and limbs
 - B The tissue on the collar of a limb
 - *C The first tissue to develop on a cutting just before the roots form**
 - D Deformed growth on plant limbs
40. Underground stems with scale-like fleshy leaves (leek and onion) are called:
- A Tubers
 - *B Bulbs**
 - C Roots
 - D Stolons
41. Traditional garden centers, in many cases, have been able to compete with chain department stores by providing?
- A Cleaner stores
 - *B Better customer service**
 - C Lower prices
 - D Better refund policies
42. The loss of water in the form of vapor from the surface of plant leaves is referred to as:
- *A Transpiration**
 - B Respiration
 - C Condensation
 - D Oxidation

43. Lawn sprinkler systems are installed so they provide even coverage. This is accomplished by:
- A Using one size pipe throughout the landscape
 - B Spacing sprinklers based on needs specified in the soil test
 - *C Spacing the heads so that each sprinkler sprays to the next sprinkler**
 - D Using sprinkler heads with a square pattern throughout the landscape
44. Which of the following plants is commonly grafted or budded?
- A Yew
 - B Pansy
 - *C Roses**
 - D Ginkgo
45. When mowing turf, it is recommended that no more than ____ of the leaf blade be removed at each cutting.
- A two thirds
 - B one eighth
 - *C one third**
 - D one half
46. Scientific names generally consist of two words, the first being the genus and the second being the:
- *A Specific epithet**
 - B Order
 - C Cultivar
 - D Family
47. In plants, _____ is the process of converting stored energy into energy for plant growth:
- A Transpiration
 - *B Respiration**
 - C Photosynthesis
 - D Pollination
48. Which of the following is important in producing a uniform size and quality container grown nursery crop?
- A Tamp the soil to the same degree of firmness in each pot
 - B Use the same soil mix for the entire crop
 - *C all of these are important in nursery crop uniformity**
 - D Leave a uniform water space at the top of each crop
49. Water availability, temperature extremes, and _____ should be considered when selecting trees for the landscape.
- *A Soil type**
 - B Buildings present
 - C Topography
 - D Slope

50. Leaves that show interveinal chlorosis probably suffer from:
- A Chlorine damage
 - *B Iron deficiency**
 - C Water Stress
 - D Nitrogen excess
51. Which of the following are most pressing current issues for the landscape maintenance industry:
- *A Labor availability, exhaust and noise pollution**
 - B Invasive insects and plants
 - C Turf decline and herbicide resistance
 - D Battery powered equipment, power blower and string trimmer safety
52. Low-growing landscape plants should:
- A Not be used in the landscape
 - B Be planted under large trees
 - C Be placed behind intermediate growing plants
 - *D Be placed in front of intermediate growing plants**
53. The Oak Leaf Nursery advertised a group of trees with a trunk caliper of 3 inches. In the trade, it is assumed that this measurement was taken:
- A 18 inches above ground level
 - B At the base of the rootball
 - C At breast height (4½ feet above the rootball)
 - *D 6 inches above ground level**
54. The landscape design principle of interconnection:
- A Is a visual break in sequence
 - *B Occurs when visual components are physically linked together**
 - C Is the human perception of space and form related to human dimension
 - D Is the overall organization and structure of a design
55. Informal landscapes:
- *A Are constructed with asymmetrical balance and curved lines**
 - B Include sheared and sculpted hedges
 - C Usually contain straight, not curved, lines
 - D Contain geometric patterns and perfect balance
56. Which of the following can be said about applying an herbicide to a lawn in granular form rather than as a liquid spray?
- *A There is little or no drift from the granular form**
 - B Most broadleaf weeds have developed resistance to liquid herbicide sprays
 - C The liquid form is much more expensive
 - D The amount of active ingredients needed is greatly reduced with the granular form

57. Mowing the lawn in a different direction each time helps reduce the chance of
- A causing excess wear on one area of the mower
 - B excess wear on one part of the mower blade
 - C spreading disease and insects
 - *D soil compaction and undesirable grain set**
58. Shrubs planted in small groups in the landscape are generally placed in:
- A Groups of 4
 - *B Odd numbered groups (i.e. 3, 5, 7)**
 - C Groups of 2
 - D Even numbered groups (i.e.2, 4, 6)
59. When installing a landscape, which step (from the following list) should be completed LAST?
- *A Plant the trees and shrubs**
 - B Install the drainage system
 - C Build retaining walls and garden walkways
 - D Add amendments to the soil
60. What part of a lawn mower prevents dust from entering the carburetor?
- A Hydraulic system
 - *B Air filter**
 - C Crankcase
 - D Exhaust chute
61. A _____ is a landscape designer's tool for drawing circles on a landscape plan.
- *A Circle template**
 - B T-square
 - C Protractor
 - D Scale
62. Lowering the soil grade around a tree removes many of the tree's _____ roots.
- A aquatic
 - B Aerial
 - C Tap
 - *D Feeder**
63. Site features to consider when conducting a site survey include:
- A Topography, client analysis, natural features, and climate
 - B Natural features, existing vegetation, soil conditions, and client analysis
 - *C Topography, soil conditions, natural features, and existing vegetation**
 - D Natural features, climate, existing vegetation, and client analysis

64. Which of the following watering systems can reduce water usage by as much as 80%.
- A Soaker Hose
 - *B Drip or Trickle irrigation**
 - C Hand watering
 - D Impulse sprinklers
65. The analysis of fertilizer is guaranteed by the manufacturer and regulated by the:
- A International Fertilization Council
 - *B United States Department of Agriculture**
 - C Texas Nursery Landscape Association
 - D Texas Department of Agriculture
66. Which of the following shrubs would be most suited for a hot, dry, steep bank in the landscape?
- *A Creeping juniper**
 - B Lantana
 - C English Ivy
 - D Moss Rose
67. Which of the following is an indication of a fertile soil?
- A grubs
 - B small brown pebbles
 - *C earthworms**
 - D a grey or yellow subsoil
68. What is the function of the axillary bud on the stem?
- A To help heal wounds of the plant
 - B To aid in seed dispersal
 - C To provide food storage
 - *D To produce a new leaf or stem**
69. An individual or firm hired to install or construct a portion of a large landscape job is called a:
- A Contractor
 - B Maintenance specialist
 - *C Subcontractor**
 - D Contract specialist
70. Soil around the foundation of a house is often more alkaline than surrounding soil due to which of the following?
- *A leaching from the masonry mortar on the home and the masonry debris from construction**
 - B leaching from the home's paint
 - C chemicals applied to prevent termites
 - D decaying wood scraps that were buried around the foundation during construction

71. Warm season turf grasses include which of the following?
- A fescue
 - B ryegrass
 - C bluegrass
 - *D bermudagrass**
72. Which of the following propagation methods usually produces the greatest amount of genetic variation in the offspring?
- A division
 - B grafting
 - *C seeding**
 - D tissue culture
73. Which is the best definition of the term understory, as used in landscaping?
- A the bottom level of a two story house
 - B shrubs and other plants planted under the eaves of a house
 - C the basement of a two story house
 - *D smaller plants that grow under the canopy of a tree**
74. Damping-off is caused by:
- *A Fungi**
 - B Viruses
 - C Bacteria
 - D Nematodes
75. What is one reason midday watering of lawns in the summer is usually not recommended?
- A Plant roots do not readily absorb water during the daylight hours
 - B Fast evaporation of water from plant leaves may cause disease
 - C Homeowners pay a premium for water if they irrigate between the hours of 8 a.m. and 5 p.m.
 - *D Much of the water is lost through evaporation**
76. Plants that use less water and are tolerant of dry landscape sites are called:
- *A Xerophytes**
 - B Epiphytes
 - C Dryophytes
 - D Monoecious
77. Which one of the following plant hardiness zones is colder than Zone 6?
- *A Zone 3**
 - B Zone 8
 - C Zone 10
 - D Zone 7

78. When referring to the USDA Plant Hardiness Zone map, one can determine the:
- A Humidity and microclimatic changes for an area
 - B Maximum expected temperature for an area
 - *C Minimum expected temperature for an area**
 - D Soil characteristics for an area
79. Generally, during the summer months in Texas, a lawn needs about ____ inch(es) of water a week, either as rain or irrigation.
- *A 1**
 - B 3
 - C 2
 - D 4
80. A scale of 1:20 means that:
- A 5' of landscape equals 6" of blueprint
 - B 1" of blueprint equals 30" in the landscape
 - C 2' of landscape equals 1 1/2" of blueprint
 - *D 1" of blueprint equals 20' in the landscape**
81. A layer of partially decomposed stems, roots, and leaves of grass which develops above the soil's surface in the lawn is called
- A mineral matter
 - B mulch
 - C inorganic matter
 - *D thatch**
82. Which of the following turf areas is mowed to the lowest height?
- A Golf fairway
 - B Home lawn
 - C Commercial lawn
 - *D Golf green**
83. When planting a bare-rooted tree, the tree should be planted:
- A at 6 inches above the original soil level
 - B At 6 inches below the original soil level
 - *C Directly even with the original soil level**
 - D At 2 inches above the original soil level
84. When planting B&B plants:
- A The burlap should be completely removed from the ball
 - *B The tie string should be cut from the trunk of the plant**
 - C The burlap should be pulled up and tied securely to the trunk for protection
 - D The burlap should be allowed to dry completely before planting

85. A major advantage for producing nursery stock in containers is that it:
- A Is less expensive than growing in nursery fields
 - *B Allows for transplanting any time during the growing season**
 - C Requires less labor than field-grown crops
 - D Requires less water and fertilization than field-grown crops
86. Which of the following is the best definition of an F1 hybrid?
- A the first cross between the offspring of A, B, C, D, and E generations
 - *B the first generation of seedlings from genetically different parents**
 - C a plant that is genetically superior to all other cultivars
 - D a plant that is genetically inferior to all other cultivars
87. Dead, decaying plant and animal material in the soil is referred to as
- A soil texture
 - *B organic matter**
 - C soil reaction
 - D the microorganisms that are present in the soil
88. Which of the following statements is true about applying dry fertilizer to a lawn?
- A Dry fertilizer should only be applied late in the day
 - B Apply dry fertilizer in the early morning when the grass is wet from the dew
 - *C It is a good practice to water-in dry fertilizer applied to a lawn**
 - D Apply dry fertilizer just after a rain
89. A financial plan for the future is called a _____.
- A cash analysis
 - B deed
 - C net worth statement
 - *D budget**
90. The ideal soil is composed of
- A 25% solid material, 25% water, 50% air
 - *B 25% water, 25% air, 50% solid material**
 - C 25% solid material, 25% air, 50% water
 - D 25% air, 25% nutrients, 50% water
91. For maximum effectiveness, mulches should be applied about _____ deep.
- A 1 inch
 - *B 3-4 inches**
 - C 8-10 inches
 - D 10-12 inches

92. Natural soil is arranged in layers referred to as
- *A soil horizons
 - B soil texture
 - C soil rings
 - D sand, silt and clay
93. When should soil NOT be tilled?
- *A When it is wet
 - B When it is dry
 - C During spring warm-up
 - D During late fall
94. When planting ground covers grown in compressed peat containers:
- *A Make several cuts down the sides of the container before planting
 - B Leave ½ inch of compressed peat container exposed above the soil line
 - C Be sure to remove the plant completely from the peat container
 - D Leave the container as is
95. A pre-emergence herbicide is applied
- A after the weeds have germinated and emerged from the soil
 - *B before the weed seeds germinate
 - C to grasses only
 - D to broadleaf weeds only
96. Which landscape tool is used to prune branches an inch or larger in diameter
- A hand pruner
 - *B pruning saw
 - C pruning knife
 - D ax
97. A systemic insecticide refers to an insecticide that
- A kills on contact
 - B does not come in a granular form
 - *C is absorbed through the roots and leaves of a plant
 - D is applied as a fumigant
98. The synthetic growth regulator, Indole-3-butyric Acid (IBA), is used in the nursery trade as a
- A surfactant
 - B insect control
 - *C rooting hormone
 - D foliage preservative

99. The statement on a bag of fertilizer that lists the percentages of nitrogen, phosphorous, and potassium contained in the fertilizer is called a(n) _____ analysis.
- A Chelated-Release
 - B Essential element
 - *C Fertilizer**
 - D Micro-element
100. An example of a creeping or prostrate evergreen is:
- A Lobularia maritima
 - *B Juniperus horizontalis**
 - C Abelia grandiflora
 - D Hibiscus syriacus
101. Trees are fertilized with granular fertilizer by spreading it within
- A A four-foot radius next to the trunk
 - *B Area covering the outer two-thirds of the distance between the trunk and the drip line and at least 50 percent of the crown radius beyond the dripline.**
 - C Only within the distance of from the trunk to the drip line
 - D A thirty-foot radius from the trunk
102. Landscape plans generally include all of the following except:
- A A north orientation marker
 - B The number of each type of plant to be planted
 - *C The mature height of the plant**
 - D The mature width of the plant
103. Which is most important to the financial health of a nursery/landscape business?
- *A Net profit**
 - B Cost margin
 - C Margin cost
 - D Gross sales
104. An area of the landscape that includes space for such items as a clothes line and garbage cans is the area:
- *A Service**
 - B Private
 - C Public
 - D Recreational
105. The optimum germination temperature for most bedding plant seeds is:
- A 60 to 65°F
 - *B 75 to 85°F**
 - C 50 to 55°F
 - D 65 to 75°F

106. Some seeds are produced in the fall and remain on or in the ground until they germinate in the spring. Exposing seeds to the winter cold and moist soil is nature's method of _____ the seed.
- A Acidifying
 - B Sporulating
 - *C Stratifying**
 - D Scarifying
107. If a container-grown nursery crop has been over watered for a long period, a grower might expect to find the roots in the following condition:
- A The roots may be extra thick and bright white in color
 - B The roots growing through the drain holes in the bottom of the container
 - *C The roots dead or absent at the bottom of the container but healthier in the top portion of the container**
 - D The roots dead or absent at the top of the container but healthier in the bottom of the container
108. One reason modern horticultural fabrics used in landscaping are said to be better than black polyethylene film is they:
- *A Allow exchange of gases between soil and air**
 - B Completely control weeds
 - C Prevent moisture from penetrating too deeply
 - D Make a better base for rock mulch
109. When Alan finished sharpening his rotary mower blade, he noticed that his mower vibrated and shook so bad that he could hardly control it. What was wrong?
- A The spark plug was loose
 - *B The blade was out of balance**
 - C The blade has been overheated, affecting its temperament
 - D The blade was made from inferior metal
110. Plants usually do not grow well in poorly drained soils because:
- A Plant roots become engorged with water in poorly drained soils
 - B Poorly drained soils warm too quickly in spring
 - C The organic matter content of poorly drained soils is too high
 - *D Oxygen content is low in poorly drained soils**
111. Wisteria, Campsis radicans, and Japanese honeysuckle are examples of:
- A Trees
 - B Groundcovers
 - C Shrubs
 - *D Vines**

112. Which of the following is a group of terms related to landscape design principles?
- A Stratify, random, curvature
 - B Thresh, rounding, complexity
 - *C Focalization, proportion, simplicity**
 - D Hogarth, symmetrical, curvature
113. _____ is an example of a parasitic plant.
- A Rust
 - B Bacteria
 - *C Mistletoe**
 - D Mildew
114. Many insect traps attract insects with:
- *A Pheromones**
 - B Dried flowers
 - C A strong insecticide
 - D Fresh flowers
115. The best time to spray a glyphosate is:
- A When weed growth is mature
 - *B When weeds are in active growth**
 - C Just before weed seeds germinate
 - D Just before a rain
116. A large perennial that provides a general effect of mass and grows in excess of five feet is:
- A Hosta
 - B Mexican Feather grass
 - *C Pampas grass**
 - D Dianthus
117. What type of watering conditions would cause the clustering of turf grass roots at the top of the soil? Assume that there has been little or no rainfall.
- A rarely watering
 - *B frequent, light watering**
 - C infrequent soaking
 - D applied once a week
118. Clay soils require:
- A More or less time for absorption than sandy soils, depending on the pH of the clay
 - B A shorter time for absorption of irrigation water than sandy soils
 - C About the same time for absorption of irrigation water as sandy soils
 - *D A longer time for absorption of irrigation water than sandy soils**

119. Which of the following would be the best response if a client calls you in October and wants to know what to do about a 20-foot Japanese pine that has turned completely brown?
- A Do nothing. The Japanese pine is just going dormant.
 - B Wait until spring and see if it sprouts green needles again.
 - C Do nothing. Pine trees shed naturally in the fall.
 - *D Cut it down. It is definitely dead.**
120. There are five common methods of night lighting for landscapes. They are:
- A Cross, down, up, reverse, and slope lighting
 - B Moderate, bright, dim, regular, and flash lighting
 - C Bright, dim, subdued, marginal, and transparent lighting
 - *D Walk, silhouette, shadow, up, and down lighting**
121. When trying to save trees on a construction site, cut and fill under the drip line of the trees should be limited to a depth of _____ inches.
- A 6
 - B 8
 - *C 0 (Never cut or fill under the drip line of trees.)**
 - D 18
122. Which LD-50 rating listed is the most potentially lethal to a human, based on animal studies?
- A 10000
 - *B 84**
 - C 1750
 - D 945
123. A transplanted tree or shrub should be set into the ground:
- A With the top of the container slightly covered
 - *B At the same depth at which it was originally growing**
 - C So that the top roots are exposed to the air
 - D 50 percent deeper than it was originally planted
124. A landscaper says that the soil at a home development site will not perk. What does that mean?
- A It will not crack in very cold weather
 - *B Water does not pass through the soil at an acceptable rate**
 - C The soil does not have proper form to resist slipping and cracking
 - D The soil particles do not form proper aggregates
125. The term is used in horticulture to define plant injury sometimes caused by pesticides:
- A Expectoration
 - B Emulsification
 - *C Phytotoxicity**
 - D Photosynchronous

126. In the plant name *Ilex x meserveae* 'Blue Princess':
- A The genus is *Ilex*, the "x" means that it is patented, the species is *meserveae*, and Blue Princess is the variety.
 - *B The genus is *Ilex*, the "x" means it is a hybrid, the species is *meserveae*, and the cultivar is Blue Princess.**
 - C The family is *Ilex*, the "x" means it is a tetraploid, the genus is *meserveae*, and the species is Blue Princess.
 - D The species is Blue Princess, the "x" means that its origin is unknown, the variety is *meserveae*, and the genus is *Ilex*.
127. Which of the following is not an important environmental requirement for germination to occur?
- A Oxygen
 - *B Carbon dioxide**
 - C Proper temperature
 - D Moisture
128. Though not recommended, if 2-cycle engine fuel is actually used in a 4-cycle engine
- A There is no problem, the engine will run just fine
 - *B The engine will likely smoke a lot, but it will run**
 - C The engine will not start or will be hard to start
 - D The engine will be much louder than normal
129. Which fuel is used in chainsaws, string trimmers, and other 2-cycle engines?
- A Fuel oil
 - B Gasoline
 - *C Gasoline and oil mix**
 - D Diesel
130. To make the living area of a landscape appear larger, a designer should include plants that feature:
- A All white flowers
 - B Warm-colored flowers such as reds, oranges, yellows
 - *C Cool-colored flowers such as blues, purples, lavenders**
 - D A combination of warm- and cool-colored flowers
131. Fireblight is a disease that most often affects susceptible plants:
- A During the winter
 - B In recently installed landscapes
 - *C During periods of rapid succulent growth**
 - D In landscapes over four years old
132. Hardening-off is a term used in the nursery/landscape industry to mean:
- A Coating plants with a protective plastic-type spray prior to transplanting
 - *B Acclimatizing tender plants to harsher, outdoor conditions**
 - C Allowing herbaceous plants to become woody
 - D Acclimatizing landscape plants to coldframe conditions

133. The four life cycle stages of beetles such as the Japanese beetle are:

- A Egg, nymph, pupae, adult
- B Grub, pupae, juvenile, adult
- *C Egg, grub, pupae, adult**
- D Moth, egg, grub, adult

134. The hardscape in a landscape design is defined as:

- A Landscapes filled with mostly hardwoods
- *B Structures, paving, fencing, etc, incorporated into a landscape**
- C The initial, rough landscape drawing
- D A space with a large area of concrete

135. Which of the following is true about lady bug beetles? They:

- *A Eat aphids**
- B Sometimes sting gardeners
- C Are bright green and blend-in with the foliage
- D Often feed on vegetable plants

136. A glyphosate is a non-selective herbicide that will kill:

- A Perennial weeds
- B Annual weeds
- *C Any green plant that it contacts**
- D Both annual and perennial weeds

137. A plant that remains vegetative during its first season of growth and flowers in the second season is a (n):

- A Propagule
- B Perennial
- *C Biennial**
- D Annual

138. A landscaper in Amarillo calls a wholesale grower in the Rio Grande Valley to inquire about plant material for a landscape job in his city. The landscaper wants to know if a specific plant material can survive the winter in Amarillo. The wholesale grower should check the following reference:

- A Critical Zone Hardiness Index
- B UPS Zone Index for safe shipping of plants
- *C USDA Plant Hardiness Zones**
- D AAN Hardiness Zone Plan

139. The use of plant materials and landscaping techniques to conserve soil moisture and to reduce water usage is:

- *A Xeriscaping**
- B Natural landscaping
- C Bogscaping
- D Waterscaping

140. Larger nursery pots are measured by the:

- *A Gallon
- B Ounce
- C Height
- D Inch

141. The nursery landscape trade and related industries are sometimes referred to as the

- A Outdoor consortium
- B Federated nursery industries
- C United environmental industry
- *D Green Industry

142. The turfgrass least tolerant of shade is:

- A St. Augustine
- *B Bermudagrass
- C Fescue
- D Zoysia

143. The factor used as an indication of grade and general vigor of Hybrid Tea Rose plants sold at retail is the number of healthy

- A terminal buds
- *B canes
- C lateral roots
- D leaves below the petioles

144. One of the best ways to speed up the rooting process of cuttings is to:

- A Harden them off by laying them out to dry a few days before sticking
- B Always take cuttings after midday
- *C Provide bottom heat
- D Keep the soil cool and the foliage warm

145. Which of the following turfgrasses has the longest winter dormancy period?

- A Purple Fountain Grass
- B St. Augustine Grass
- C Bermudagrass
- *D Zoysia

146. Which insect eats out trails between the leaf surfaces?

- A Aphids
- *B Leaf miners
- C Thrips
- D Spider mites

147. Which would not be part of a lawn irrigation system?
- A solenoid valve
 - *B differential valve**
 - C PVC pipe
 - D backflow valve
148. Freshly cut bark chips and sawdust should not be used as a soil amendment because they
- A hold too much water around the plant
 - B release toxic elements into the soil
 - *C rob the soil of nitrogen during decomposition**
 - D are infested with disease
149. Which of the following is not a rule-of-thumb traditionally followed by landscapers?
- *A Shrubs should be planted 6-12" from the foundation**
 - B Landscape plants should be dry at night, if possible.
 - C Home walkways should be wide enough for 2 people to walk side by side
 - D Shrubs should be no closer than 2.5-3 feet from the foundation
150. The basic underlying principle of using a mist propagation system is that it_____.
- A Cools the propagation medium to promote root formation and development
 - B Keeps the plant material cool
 - *C Increases humidity around the cutting and reduces transpiration**
 - D Keeps the propagation medium uniformly moist and supplies moisture to the base of the cuttings
151. The "puff balls" found on dandelions that are easily blown away by the wind, are actually:
- *A Seeds**
 - B Sepals
 - C Anthers
 - D Spores
152. Which of the following is a drawback to planting English Ivy or Virginia Creeper on the side of a wood, brick, or vinyl-sided house?
- *A the adhesive tips of the ivy damage the siding or leave unsightly blemishes**
 - B it is difficult to prune ivy on siding
 - C these plants are groundcovers and are hard to train on walls
 - D the leaves turn brown in the fall and are unsightly
153. When pruning cuts are made on woody trees, one should not cut into or behind the _____. This area is where healing callus originates.
- A internode
 - B interstitial
 - *C collar**
 - D axil

154. If a house is painted in several colors you might be worried about the colors of the house and the plant flower color clashing. One flower choice that would be safest to use is
- A red
 - *B white**
 - C pink
 - D blue
155. Which of the following is a disadvantage of using a time clock to control an irrigation system?
- A Time clocks are very expensive
 - *B The plants are watered at set times, whether they need watering or not.**
 - C Time clocks are difficult to set.
 - D When there is a power outage, the irrigation system runs continuously.
156. A privacy fence should be at least ____ feet high if the purpose is to screen the view of neighbors at ground level or others walking near the property at the same elevation.
- *A 8**
 - B 6
 - C 5
 - D 4
157. Once they are beneath the bark surface, _____ are difficult to control.
- *A Borers**
 - B Thrips
 - C Mealybugs
 - D Aphids
158. A color scheme in a garden that produces a carnival-like effect is referred to as being:
- A Monochromatic
 - *B Polychromatic**
 - C Analogous
 - D Complementary
159. When taking a soil sample, be sure to take cores at least _____ inches deep.
- A 14
 - *B 6**
 - C 3
 - D 2
160. To preserve the germination ability of most seeds, store them in a:
- A Warm, dry environment
 - *B Cool, dry environment**
 - C Cool environment after scarification
 - D Warm, moist environment after stratification

161. The best time to prune azaleas is
- A when they are dormant
 - *B just after they bloom**
 - C in spring before leaves appear
 - D just before they bloom
162. An area that has a slightly different climate conditions than the surrounding land, such as the north side of a house which provides shelter from excess sun and wind, is called a
- A terrain specific locale
 - *B micro-climate**
 - C macro-climate
 - D climate modified locale
163. Tree roots that are responsible for most nutrient uptake are found
- *A in the subsoil**
 - B outside the dripline
 - C between 18" and 28" in depth
 - D within the upper 8" of topsoil
164. In landscaping terms, if the mower blade is set too low and the turf is not level, the mower may _____ the turf in spots.
- A Slice
 - B Aerate
 - *C Scalp**
 - D Scorch
165. PVC pipe used for irrigation is connected to couplings and fittings that are _____ to the pipe.
- A Wired
 - *B Solvent Welded**
 - C Clamped
 - D Soldered
166. Which of these terms is used in horticulture to describe spray materials being blown from the target area to non-target plants, etc.?
- A Run-off
 - B Expansion
 - C Non-targeted
 - *D Drift**
167. Which is NOT a type of leaf arrangement?
- *A pyramidal**
 - B alternate
 - C opposite
 - D whorled

168. Cuttings in the rooting bench should be:

- A Kept dry during the day and moist at night
- B Fertilized regularly
- C Scarified before watering
- *D Kept constantly moist**

169. _____ pruning is a pruning technique concerned primarily with the removal of branches that could lead to damage or weaken a plant's health and appearance.

- A Canopy
- B Random
- *C Natural target**
- D Crotch

170. The road in front of Steve's house has become traffic congested in recent years. The view, and especially the noise, bothers the family. When Steve discussed this problem with a landscaper, the landscaper mentioned berms. What was the landscaper talking about?

- A His recent fishing trip where he caught several berms
- B Trees planted in multiple rows between the house and road
- *C Tall mounds of soil placed between the house and road to block the noise and view**
- D A special type of wall to block the noise and view of traffic on the road

171. An important step in properly composting landscape refuse is to:

- A Make only small piles to keep the material cool
- B Treat each layer with pesticide to control insects and weeds
- *C Thoroughly moisten each layer of material**
- D Exclude as much air as possible from the compost pile

172. The landscape profession for which you are most likely to need a license is:

- A landscape maintenance supervisor
- B landscape contractor
- *C landscape architect**
- D landscape designer

173. Which of the following is a deciduous vine?

- A Mandevilla
- B Rosemary
- C English Ivy
- *D Chinese wisteria**

174. Which of the following is microscopic?

- A Spider mites
- *B Nematodes**
- C Thrips
- D aphids

175. Divide and separate fall blooming perennials:

- A Mid summer
- *B In early spring**
- C In late spring
- D Early fall

176. B&B in the nursery/landscape trade means:

- A Bare-rooted and bagged
- *B Balled and burlapped**
- C Burlapped in a bag
- D Bagged in burlap

177. Which of the following serves as a food reservoir for the developing embryo within the seed of a monocot?

- A Testa
- B Radical
- *C Endosperm**
- D Plumule

178. The scientific name for Heavenly Bamboo is:

- A *Pyracantha coccinea*
- *B *Nandina domestica***
- C *Ligustrum japonicum*
- D *Raphiolepis indica*

179. Benefits of landscaping include which of the following?

- A absorbing pollution from the air and reducing noise levels
- B cooling of air and providing oxygen
- C filtering of water and prevention of erosion
- *D landscaping does all of these**

180. Which of the following is a group of small-growing trees?

- A Red Oak, Bald Cypress, Live Oak
- *B Crape myrtle, Eastern redbud, Japanese black pine**
- C Sweet Gum, Sycamore, Southern Magnolia
- D Pecan, Sweet Gum, Ginkgo

181. Some plants can release chemicals into the soil that inhibit or stop growth of plants in the surrounding soil. The effect is called_____.

- *A Allelopathy**
- B Hormonal Redaction
- C Chemical Synpathy
- D Reduction Oxidation

182. Large trees used to frame a one story, ranch style home can make the home seem ____ than it really is.
- A larger
 - B wider
 - *C smaller**
 - D closer to the viewer
183. Which of the following is a major reason for mulching landscape plants?
- A Supplies nutrients
 - B Attracts earthworms
 - *C Moderates soil temperature and conserves soil moisture**
 - D Increases anti-aerobic activity in the soil
184. A major advantage for using slow-release fertilizer in container-grown nursery stock is that it:
- A Can easily be leached from the soil if too much is applied
 - B Can be applied without expensive equipment
 - *C Supplies nutrients over a long period of time with one application**
 - D Can be injected through the irrigation system
185. Some of the salt buildup in containerized plants can be removed by:
- A adding lime to the irrigation water
 - B withholding water
 - C adding fertilizer
 - *D leaching**
186. Which of the following groups contains only deciduous plants?
- A Live Oak, Loquat, Dermatophyllum secundiflorum
 - B Pinus thunbergiana, Sycamore, Redbud
 - C River Birch, Southern Magnolia, Ilex vomitoria
 - *D Cedar Elm, Carya illinoensis, Red Oak**
187. 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 fuel cell or fuel slide
 - B cylinder or fuel ring
 - C exhaust valve or flywheel
 - *D primer bulb or choke**
188. When servicing the spark plug on a lawn mower, the electrode should be ____ before reinstalling it in the mower.
- A cleaned, dried, and the electrode gap closed
 - B cleaned and filled with oil
 - *C cleaned and dried**
 - D cleaned and coated with oil

189. A _____ is a woody perennial that has more than one main trunk.
- *A **Shrub**
 - B Tree
 - C Flower
 - D Weed
190. An example of an organic material is
- A Vermiculite
 - B Perlite
 - *C **Compost**
 - D Pea gravel
191. Most landscape plants like the soil pH:
- *A **Slightly acidic**
 - B Strongly acidic
 - C Strongly alkaline
 - D Slightly alkaline
192. A group of plants located along the perimeter of a landscape use area is called a _____ planting.
- A Corner
 - B Foreground
 - *C **Border**
 - D Foundation
193. A propagator in a nursery business is responsible for:
- A Making sure the area used for pulling orders of container grown landscape-size plants is well stocked
 - B Carrying out an extensive plant breeding program and applying for plant patents
 - C Increasing new accounts by spreading propaganda
 - *D **Starting new plants from seeds, cuttings, grafting, or other means and planning the propagation schedule**
194. Rod plans to start a wholesale nursery growing Japanese maples. It will take him two years to produce the first saleable crop. Which of the following will be most affected?
- A inventory
 - B net worth
 - C production scheduling
 - *D **cash flow**
195. Water _____ to help reduce disease in nursery crops
- A At night
 - B With overhead sprinklers
 - *C **Early in the morning**
 - D Late in the afternoon

196. Which of the following best describes seed scarification?
- *A removing some of the seed coat with a file, sandpaper, or acid solution**
 - B planting seeds in a nursery flat to a depth of two times the seed's diameter
 - C placing seed capsules in the sun for natural drying
 - D using a dibble to spot off newly planted seedlings
197. Which of the following describes plants that lose their leaves during the winter?
- A Coniferous
 - *B Deciduous**
 - C Evergreen
 - D Herbaceous
198. Which of the following is the proper recommendation for pruning trees at planting:
- *A Pruning should be limited to shaping the plant by removing dead or damaged limbs**
 - B Trees should be cut back to at least one-half their size to prevent stress on root systems
 - C Trees should not be pruned at all – the latest trend is to let them develop naturally
 - D Trees should not be pruned until the third year after planting
199. Magnesium, calcium, and sulfur:
- A Are micro-elements
 - *B Are essential elements needed for plant processes**
 - C Can be found in incomplete fertilizers
 - D Are only needed by some plants
200. Which tree has the finest textured foliage?
- *A Bald Cypress**
 - B Sweet gum
 - C Sycamore
 - D Southern magnolia
201. Plant diseases caused by rain splashed microorganisms from the ground can be reduced by
- A removing all mulch from around and underneath the plant
 - *B applying mulch around and underneath plants**
 - C using only clean topsoil as backfill
 - D removing all mulch outside the dripline
202. A post-emergent herbicide is applied
- A before the weed seeds germinate
 - B to broadleaf weeds only
 - *C after the weeds have germinated and emerged from the soil**
 - D just as the weed seeds are germinating

203. Three types of ground patterns used in landscape design are
- *A Curved-line, arc-and-tangent, straight-line**
 - B Curved-line, straight-line, squiggle-line
 - C Curved-line, arc-and-tangent, squiggle-line
 - D Straight-line, squiggle-line, arc-and-tangent
204. In most plants, a hormone called auxin is produced by the terminal bud. It moves downward into the shoot and inhibits the growth and development of lateral buds. This is called:
- *A Apical dominance**
 - B Terminal bud inhibition
 - C The apex auxin complex
 - D Lateral dominance
205. Large nursery pots are measured by the
- A inch, and sizes are strictly regulated
 - *B gallon, sizes are strictly regulated**
 - C height, and sizes are strictly regulated
 - D gallon, the exact size varies by the manufacturer
206. The three major divisions of a soil profile are:
- *A topsoil, subsoil, and parent material**
 - B mulch, clay, and parent material
 - C topsoil, subsoil, and bedrock
 - D topsoil, clay layer, and rock layer
207. Horticultural chemicals should be stored in which of the following?
- A A refrigerated storage cabinet
 - B The garage refrigerator
 - C A cool room such as the basement of a house
 - *D A free-standing, locked building**
208. A friable soil is one that:
- A Is high in clay particles
 - B Is rich in N, P, and K
 - C Requires humus and fertilizer to be productive
 - *D Is loose and of good structure and texture**
209. A lawn mower with blades parallel to the surface of the ground is called a(n):
- A De-thatching mower
 - B Reel mower
 - *C Rotary mower**
 - D Electric mower

210. The main objective of root pruning is to

- *A develop a compact and fibrous root system
- B fit the plant in a hole
- C encourage normal stem growth
- D increase water absorption

211. A plant pathologist studies plant:

- A Physiology
- B Morphology
- C Insects
- *D Diseases

212. Blue spots along the cutting edge of a rotary mower blade after sharpening indicate

- *A The blade was overheated during sharpening
- B The metal was distorted while sharpening
- C The blade was made of inferior metal
- D There are dull spots remaining on the blade

213. A plant that dies to the ground at the end of each growing season but comes back from the same root-stock year after year is most accurately described as a(n):

- *A Herbaceous perennial
- B Perennial
- C Annual
- D Biennial

214. Brown patch, dollar spot, and gray snow mold are all diseases of:

- A Azaleas
- *B Turfgrasses
- C Trees
- D Evergreens

215. What information is not contained in the legend on a final landscape plan?

- A Plant quantities
- *B Designer's name
- C Plant names
- D Specific notes concerning installation

216. Plants sold in the landscape trade are sold by _____ name.

- *A Botanical
- B Order and genus
- C Order and family
- D Family

217. To help ensure grass seeds are evenly distributed during planting:
- A sow one-half of the seed by hand and one-half of the seed with a spreader
 - B use a drop spreader with a setting of seven
 - *C sow one-half the seed in one direction and sow one-half at right angles to the first direction of seeding**
 - D use a rotary spreader with a setting of nine
218. If a two-cycle engine on a weed trimmer uses a 24:1 fuel ratio, you should mix:
- A Equal amounts of gasoline and oil
 - *B 24 parts gasoline to 1 part oil**
 - C 24 parts oil to 1 part gasoline
 - D 24 parts gasoline to 1 part engine cleaner
219. Liriope and Ajuga are generally classified as:
- A Small evergreen shrubs
 - B Small flowering shrubs
 - C Semi-evergreen shrubs
 - *D Groundcovers**
220. Plants showing symptoms of nitrogen deficiency will show which of the following symptoms?
- A Abnormally long internodes
 - B Tiny brown spots between the leaf veins
 - *C Yellowing of the entire leaf**
 - D Purple veins in the leaves
221. Mrs. Thompson loves spring flowering bulbs. Which of the following would you suggest for Mrs. Thompson to plant?
- A Gardenia jasminoides
 - B Coleus x hybridus
 - *C Narcissus cvs.**
 - D Lonicera japonica
222. When installing a landscape, which step (from the following list) should be completed FIRST:
- A Add amendments to the soil
 - *B Install the drainage system**
 - C Build retaining walls and garden walkways
 - D Plant the trees and shrubs
223. Light energy, carbon dioxide, and water enter into the process of photosynthesis, through which:
- *A Carbohydrates are formed**
 - B Respiration results
 - C Amino acids are formed
 - D Chlorophyll is formed

224. Fairy ring in turfgrass is caused by:

- *A Fungi
- B Grubs
- C Pollen
- D Nematodes

225. The most commonly used lawn grasses used in the U.S. can be divided into ____ or ____ types.

- A spring or summer
- B Perennials or annuals
- *C warm season or cool season
- D grasses or broadleaved

226. The soil pH level primarily controls:

- A Activity of soil-borne diseases
- *B Availability of essential plant nutrients
- C Moisture absorption by roots
- D Soil temperature

227. In a landscape design, properly located plants and structures.

- A Need to be constantly pruned and maintained
- B Are not essential for a good landscape design
- *C Can reduce heat intensity
- D Block the view of the front door

228. Of the grasses listed below, which grass is most commonly used on golf greens in Texas?

- *A Hybrid Bermudagrass cultivars
- B St. Augustine grass
- C Fescue
- D Mondo grass

229. The recommended minimum width for a residential walkway in the public area of the landscape is _____ feet.

- *A 3.5
- B 5
- C 7.5
- D 6.5

230. Similar to the textural appearance of plants, _____ can be used to create spatial illusions in a perennial garden.

- *A Color
- B Plant growth rate
- C Staking
- D Shape

231. Nutsedge is difficult to control by hand-pulling, hoeing, or tilling because nutsedge:

- A can grow easily from leaf-piece cuttings left after hoeing or tilling.
- B constantly produces underground seeds that are difficult to kill.
- *C propagates from underground tubers and rhizomes.**
- D propagates by spores that easily spread in the air when the plant is disturbed.

232. The best definition of a surfactant is a:

- A Type of soap used to wash off pesticide residue by increasing surface tension between the leaf and residue
- B Type of pesticide formulation with an oily consistency for protecting high pressure spray nozzles from wear
- *C Material added to a liquid spray solution to reduce surface tension between the liquid and leaf surface**
- D Material to protect leaf surfaces from pesticides by creating a waxy seal over the leaf

233. When selecting ginkgo trees for the home landscape, you should choose:

- A Mature female trees only
- B Female trees only
- C Male and female trees
- *D Male trees only**

234. Which of the following is not used to power string trimmers:

- A A 2-cycle engine
- B A 4-cycle engine
- *C Diesel fuel**
- D Electricity/Battery

235. A landscape designer uses many _____ in developing the preliminary design for a project.

- A Problem statements
- *B Bubble diagrams**
- C Site surveys
- D Perfect plans

236. A landscaper has to decide whether to put in a groundcover instead of turfgrass on a site with the following characteristics. Which characteristic is the most important factor in making this decision?

- A The site faces East
- *B The landscape area has a 25% slope**
- C The site is in full sun
- D The site has only 3 inches of topsoil

237. A shade loving border plant is:

- A Marigold
- B Chrysanthemum
- C Zinnia
- *D Impatiens**

238. Which type of insecticide would be most effective against sucking-type insects?
- A Dust
 - B Aerosol
 - *C Systemic**
 - D Contact
239. Which of the following groups contains only evergreen plants?
- *A American Arborvitae, Camellia, Japanese Yew**
 - B Bald Cypress, Purpleleaf Plum, Pecan
 - C Sweet Gum, Crape Myrtle, Sycamore
 - D Azalea, Ginkgo, Chinese Holly
240. Some vines use _____ to support themselves as they climb.
- A Tap roots
 - B Stems
 - *C Tendrils**
 - D Aquatic roots
241. What is one reason the container grown sector of nursery crop production has increased in recent years?
- A the plants develop circling root systems
 - B soilless media is beneficial to plant growth
 - C container plants require less care
 - *D factors affecting plant growth can be maintained at optimum levels**
242. Who is responsible for establishing the binomial system for naming plants
- A Weinberg
 - *B Linnaeus**
 - C Aristotle
 - D Bernuli
243. Training plants into three-dimensional ornamental forms, such as animals, is called:
- *A Topiary**
 - B Heading back
 - C Bonsai
 - D Espalier
244. The most common synthetic root-promoting chemicals used in rooting hormones are:
- A CCA and ACD
 - B ISO and OSB
 - C IBA and AAN
 - *D IBA and NAA**

245. One function of stomates is to:

- *A Give off water vapor**
- B Prevent disease
- C Produce pollen
- D Photosynthesize

246. Which plant is a vine?

- A Ficus benjamina
- B Ilex cornuta
- *C Lonicera japonica**
- D Pinus thunbergiana

247. Functional roles of plants in the landscape do not include:

- A Screening
- *B Greening up**
- C Developing the structural framework of the design
- D Enclosing

248. All other things being equal, which diameter of pipe or combination of pipes will carry the most water?

- A five 1/2" pipes
- *B one 2" pipe**
- C four 3/4" pipes
- D three 1" pipes

249. Which is most likely not a benefit from using mulch?

- A Reduced disease
- B Reduced water loss from the soil
- *C Reduced insects**
- D Moderated soil temperatures

250. Which of the following definitions best describes "auxin?"

- A A naturally occurring plant chemical produced to deter disease organisms
- *B A naturally occurring plant hormone that promotes plant growth**
- C A chemical used as a plant growth retardant
- D The capital of Texas and the home of the USDA

