

**NATIONAL FFA NURSERY/LANDSCAPE  
CAREER DEVELOPMENT EVENT  
GENERAL KNOWLEDGE EXAM  
2022**

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

1. A designer paired a red/purple barberry with a yellow sunshine ligustrum near the front door. These evergreen shrubs grow to similar size. Which of these was the designer probably trying to achieve?
  - A. Rhythm
  - B. Focalization
  - C. Simplicity
  - D. Symmetrical balance
2. Which of these statements is true about early spring flowering shrubs?
  - A. They should be pruned in mid-winter.
  - B. Their flower buds develop on wood from the previous growing season.
  - C. Early spring pruning means more flowers, which develop quickly.
  - D. They develop flowers on new spring growth.
3. Which of these is an herbaceous perennial?
  - A. Mahonia
  - B. Spiraea
  - C. Hosta
  - D. Azalea
4. Non-verbal communication skills are important in salesmanship and client relations. One non-verbal signal that helps indicate that you are listening intently to the client is:
  - A. Eye contact
  - B. Looking outside the sales space
  - C. Hands on hips
  - D. Wrinkling the nose
5. Mulching landscape plants has several benefits. Which of these is **NOT** a significant benefit of mulching?
  - A. Winter protection
  - B. Reducing water loss from the soil
  - C. Nutrient modification
  - D. Moderation of soil temperatures
6. In the landscape plant botanical name, *Acer saccharum* cv., the 'cv.' stands for:
  - A. Color variation
  - B. Cultivar vitae
  - C. Common variety
  - D. Cultivar

7. A landscape plant is tagged “Zones 5-9”. What does this mean?
  - A. That the plant will survive the winters in USDA Climatic Zones 5-9.
  - B. That the plant will survive with natural rainfall in Zones 5-9.
  - C. That the plant will survive in the National Association of Landscaper’s Zones 5-9.
  - D. That the plant will survive all naturally occurring conditions in Zones 5-9.
8. Lawn grasses vary in their ideal soil pH range, but a general range for best nutrient availability is:
  - A. 6.5 to 7.0
  - B. 5.0 to 6.0
  - C. 4.5 to 5.5
  - D. 5.5 to 5.7
9. Auxin is important in plant production. It is best described as:
  - A. A naturally occurring resin for stem elongation.
  - B. A plant hormone used to stimulate the rooting of cuttings.
  - C. A synthetic herbicide.
  - D. A city in Texas with a huge international nursery trade.
10. When using a walk-behind mower on a steep sloping lawn, it is safest to mow:
  - A. across the slope
  - B. in a crosshatch pattern
  - C. up and down the slope
  - D. up the slope only
11. While on vacation your lawn grew to 6 inches tall. What is the best thing to do in this case?
  - A. Mow the lawn in a crosshatch pattern and then in a circular pattern.
  - B. Cut the grass as close as possible, less than 1” high, to give it a fresh start.
  - C. Irrigate the lawn to soften the leaf blades, then mow to the normal height.
  - D. Cut it now taking off about 1/3 of the length and then again in 3-5 days.
12. Which of these is a pesticide signal word and is used on pesticides that are less toxic than others?
  - A. CAVEAT
  - B. DANGER
  - C. WARNING
  - D. CAUTION
13. One of the advantages of a zero-turn mower over conventional riding mowers is:
  - A. cost
  - B. height of cut
  - C. maneuverability
  - D. all of these

14. The backyard area of a residence is sometimes referred to as the \_\_\_\_ area.
- A. private
  - B. service
  - C. public
  - D. living
15. A designer placed *Mahonia aquifolia* and *Buxus microphylla* near each other in the foundation planting. This designer was most likely trying to capitalize on:
- A. The blooms of the Buxus against the color of the Mahonia.
  - B. The complimentary and profuse spring bloom colors of each.
  - C. The contrast in texture of the two plants.
  - D. The complimentary colors of the plants.
16. A beginning nurseryman has the following plants in gallon pots under a 70% shade cloth this summer. Which of the plants would you expect to not do as well as the others under 70% shade?
- A. Pachysandra
  - B. Astilbe
  - C. Mugo pine
  - D. Hosta
17. The vascular tissue of plants that conducts sugars and metabolic products downward from the leaves is called the:
- A. Xylem
  - B. Phloem
  - C. Cotyledon
  - D. Lenticles
18. The first root of a germinating seed forms from this part of the seed.
- A. Endosperm
  - B. Cotyledons
  - C. Radical
  - D. Hypocotyl
19. One of the major problems of many landscape plants is a pest in the class Arachnida. This pest attacks plants by feeding on the sap of plant leaves.
- A. Aphids
  - B. Japanese beetles
  - C. Spider mites
  - D. Mealy bugs
20. Which of these is the best definition of a systemic pesticide?
- A. A fungicide that moves through the soil to control microorganisms.
  - B. A larvicide that kills immature insects feeding on the plant or living in the soil.
  - C. An insecticide that moves through the plant making it toxic to insects.
  - D. A pesticide that is absorbed and transported through the plant.

21. Which of these most accurately describes symptoms of iron deficiency in plants?
- A. A waxy substance expelled from the axils of the leaves
  - B. Yellowing of the leaves in between the dark green veins
  - C. A white, powdery buildup on the surface of the leaves
  - D. Holes in the leaves with crisp, brown edges
22. Which of these is generally the fastest method of establishing a lawn, but also is usually the most expensive?
- A. seeding
  - B. sprigging
  - C. sodding
  - D. hydroseeding
23. It is generally recognized that plants need \_\_\_\_ essential nutrients to perform best.
- A. 3
  - B. 7
  - C. 9
  - D. 16
24. Why are native plants often a better choice for landscape plants?
- A. They are adapted to the local environmental conditions and may require less water.
  - B. They are easily obtained from nature and are deer resistant.
  - C. They are more aesthetically pleasing than non-natives.
  - D. Native plants will out-compete invasive plants.
25. This fertilizer nutrient is readily lost from the soil through leaching, soil erosion, and runoff. Levels of this nutrient can fluctuate widely with weather and soil conditions over short time periods. It is applied to crops according to general recommendations rather than soil test results.
- A. Nitrogen
  - B. Phosphorus
  - C. Potash
  - D. Magnesium
26. The financial analysis of Bob's Landscaping business last year revealed the following data. Which of these tells Bob most about the profitability of his business?
- A. Inventory = \$13,750
  - B. Gross sales = \$268,000
  - C. Net = \$81,000
  - D. Payroll = \$65,000
27. Small retail nurseries often have difficulty competing with big box chain stores. Which of these strategies might best help small stores compete?
- A. Setting prices lower than the box stores.
  - B. Providing better customer service.
  - C. Advertising on local radio stations.
  - D. Criticizing box and chain stores to their customers.

28. Which of these trees provides the best fall color?
- A. Eastern White Pine
  - B. Ginkgo
  - C. Cherry Laurel
  - D. Norway Spruce
29. Night lighting of the landscape can have dramatic effects, adding beauty and enjoyment to the home landscape. A variety of effects is possible, depending on the lighting type and placement. Which of these is a type of commercially available lighting used in landscape lighting for the home?
- A. Differential lighting
  - B. Sequel lighting
  - C. Down lighting
  - D. Lime lighting
30. Generally, in residential landscape design, \_\_\_\_ is the focal point of the public area of the landscape.
- A. The front door
  - B. The front walkway
  - C. The driveway
  - D. The driveway and the walkway in combination
31. Safety Data Sheets (SDS), formerly known as MSDSs or Material Safety Data Sheets, for hazardous chemicals are supplied to users to communicate information on the safe use of and hazards of each product. SDS's are supplied by the \_\_\_\_.
- A. USDA
  - B. FDA
  - C. OSHA
  - D. Manufacturer of the product
32. A soil that contains roughly equal amounts of sand, silt, and clay is called a(n):
- A. Loam
  - B. Textured soil
  - C. Permeable soil
  - D. Silty clay sandy loam
33. When a soil sample of a lawn is taken, be sure to take sample cores from all areas of the yard with cores about \_\_\_\_ inches deep.
- A. 3
  - B. 6
  - C. 12
  - D. 18
34. For a tree to shade the home from the afternoon sun in summer, plant the tree on the \_\_\_\_ side of the house.
- A. North
  - B. East
  - C. Northwest
  - D. Southwest

35. Large growing trees, taller than sixty feet, should be planted at least \_\_\_\_ feet from the foundation of a home.
- A. 8
  - B. 10
  - C. 12
  - D. 20
36. Which of these actions is most likely to stimulate the growth of lateral buds on a shrub or tree?
- A. Removal of the stamens
  - B. Removal of the anthers
  - C. Removal of the terminal buds
  - D. Spraying the plant with an organic pesticide
37. When removing large branches from trees the \_\_\_\_ method should be used. This prevents damage caused by the weight of the branch ripping down and stripping bark off the tree trunk.
- A. Straight-cut
  - B. Two-cut
  - C. Three-cut
  - D. Four-cut
38. The air space on a spark plug between the electrodes is set with a tool called a(n):
- A. Plug knife
  - B. Electrode prod
  - C. Gap gauge
  - D. Terminal gauge
39. Which of these practices will encourage lawn grasses to become more deeply rooted?
- A. Deep watering only as needed.
  - B. Light watering each morning.
  - C. Heavy watering each morning.
  - D. Watering each morning and afternoon.
40. The best example listed of a variable cost for a nursery grower is:
- A. Liability insurance
  - B. Land payments
  - C. Cost of potting soil
  - D. Truck payment
41. A customer wants a flowering annual for their landscape in Indianapolis that can withstand the heat of full sun conditions during the summer. They will host a wedding at their home in mid-summer and they want a blooming annual that will provide excellent color at that time. Which of these choices would be the best plant to suggest to this customer?
- A. clematis
  - B. snapdragons
  - C. marigolds
  - D. pansies

42. One of the responsibilities of this Federal agency is to protect U.S. agriculture and natural resources against invasive pests and diseases.
- A. American Community and Workplace Administration
  - B. Occupational Safety and Health Administration
  - C. Cooperative Extension Service
  - D. Animal and Plant Health Inspection Service
43. A nursery business owner realized that her equipment is not worth as much this year as it was last year, or any year since she purchased the equipment. The measure of how much a piece of equipment drops in value each year is called:
- A. maintenance appreciation loss.
  - B. consumable routing.
  - C. depreciation.
  - D. asset routing.
44. Anyone who plans to dig, including landscapers and homeowners, should call \_\_\_\_ or go to their state call-before-you-dig website to request that the approximate location of buried utilities be marked with paint or flags so that they don't unintentionally dig into an underground utility line.
- A. 911
  - B. 811
  - C. 711
  - D. 611
45. A pesticide that warns against dermal contact indicates that precautions against contact with \_\_\_\_ should be taken.
- A. hands
  - B. skin
  - C. face
  - D. arms
46. Which of the following pests gives birth to live young and can multiply at an alarming rate?
- A. Aphids
  - B. Whiteflies
  - C. Leaf miners
  - D. Spider mites
47. Which of these are current trends that many landscape customers are interested in and often request?
- A. Permeable paving and rainwater harvesting
  - B. Drought tolerant and native plants
  - C. Graywater harvesting and reduced lawn areas
  - D. All the above

48. If a fertilizer has an 18-5-12 analysis, how much phosphorus is in a 50-pound bag of this fertilizer?
- A. 12 pounds
  - B. 5 pounds
  - C. 18 pounds
  - D. 2.5 pounds
49. If you plan to start a nursery you will need to contact this governmental agency to obtain a license to ensure that your plants don't contain pests or diseases.
- A. FDA
  - B. State Department of Agriculture
  - C. APHIS
  - D. OSHA
50. These plants are grown from seeds or cuttings. They are very young plants, usually grown for sale to other nurseries, who grow them to a larger size before selling them to consumers. This is the best definition for \_\_\_\_ in horticultural terms.
- A. Pullers
  - B. Liners
  - C. Yearlings
  - D. Inserts

End  
FBF