

**NATIONAL FFA NURSERY/LANDSCAPE
CAREER DEVELOPMENT EVENT
GENERAL KNOWLEDGE EXAM
2011**

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. Locally owned, independent garden centers have found it difficult to compete with chain stores on price. In many cases, they have been able to remain competitive by providing:
 - A. longer hours of operation.
 - B. better guarantees.
 - C. cleaner and brighter stores.
 - * D. better service.

2. Which of these plants is most likely to survive in the landscape if temperatures go below freezing for extended periods?
 - A. Wax Begonia
 - * B. Pansy
 - C. Striped Dracaena
 - D. Benjamin Fig

3. Which of the following hardiness zones is warmer than Zone 3?
 - A. Zone 1
 - B. Zone A
 - C. Zone B-2
 - * D. Zone 6

4. Which LD-50 rating listed is most toxic to humans?
 - * A. 17
 - B. 84
 - C. 905
 - D. 1000

5. Watering plants _____ will to help reduce disease in nursery crops.
 - A. late in the afternoon
 - * B. in the morning
 - C. in the late evening
 - D. in the early evening

6. An advantage of using a landscape fabric around plantings rather than black polyethylene film is that landscape fabric:
 - A. warms the root zone.
 - B. eliminates the need for mulch.
 - * C. provides for the exchange of gases between soil and air.
 - D. provides color to the landscape as desired.

7. Sand used in potting mixes for horticultural crops should generally be _____ textured.
- A. smooth
 - B. very fine
 - C. fine to medium
 - * D. coarse
8. In the commercial nursery trade, additions are often made to the binomial name of a plant, such as, 'Crimson King' to the name *Acer platanoides*. In this case, 'Crimson King' is the _____ name.
- A. species
 - * B. cultivar
 - C. genus
 - D. order
9. *Ginkgo biloba* is a tree known for its:
- * A. excellent fall color.
 - B. fragrant spring flowers.
 - C. ease of transplanting.
 - D. colorful, edible fruit.
10. The soil should be firmed around newly transplanted plants to prevent:
- * A. drying of plant roots.
 - B. soil heaving in winter.
 - C. disease.
 - D. insects from invading the soft soil.
11. A plant pathologist studies:
- A. diseases and insects of plants.
 - B. plant propagation methods.
 - * C. plant diseases.
 - D. adaptation of plants to the landscape.
12. Which of the following landscape materials is derived from a naturally occurring organic source?
- A. perlite
 - * B. peat moss
 - C. pea gravel
 - D. vermiculite
13. The most commonly used propagation method for shrubs such as Japanese and Chinese hollies is:
- A. layering.
 - * B. stem cuttings.
 - C. cleft grafting.
 - D. root cuttings.
14. In most asymmetrical landscape designs when using fewer than 10 shrubs, they should be planted in:
- A. groups of two.
 - B. even numbered groups.
 - C. groups of four.
 - * D. odd numbered groups.

15. What are the major advantages of adding mulch around landscape plantings?
- A. conserve nutrients, prevent runoff, reduce disease, and prevent carbon dioxide loss
 - * B. retain moisture, improve appearance, moderate temperatures, and suppress weeds
 - C. control insects, improve aeration, control weeds, and provide air exchange
 - D. retain moisture, cool plant trunks, control disease, and store nutrients
16. Field-grown trees are root pruned to:
- A. force more of the tree's energy into top growth.
 - * B. encourage a more compact root system.
 - C. encourage tap root growth.
 - D. prevent entanglement of roots with the roots of nearby plants.
17. A _____ plant ~~that~~ produces male flowers on one plant and female flower parts on another plant.
- A. staminate
 - B. monocious
 - * C. dioecious
 - D. gymnosperm
18. Which of the following is correct about scalping lawns?
- * A. Scalping is generally undesirable, occurring on uneven ground or when a mower blade is set too low.
 - B. Scalping is recommended to be done only one time per year and in mid-summer.
 - C. Scalping is most beneficial if done in the fall.
 - D. Lawns in good condition need scalping only once every two to three years.
19. This nutrient is generally not tested for in soil tests. Instead, standard recommendations are given for its rate of application, depending on the plants or crop to be grown.
- * A. nitrogen
 - B. phosphorus
 - C. potassium
 - D. magnesium
20. To assure a soil test covers most of the root zone, soil core samples should be taken to a depth of about _____ inches.
- A. 2
 - B. 3
 - * C. 6
 - D. 14
21. In what position should a deciduous tree be planted to shade a building from the hot afternoon sun during the summer and allow the warming sun rays to reach the building in winter?
- A. East
 - B. North
 - C. Northwest
 - * D. Southwest

22. Iron deficiency in plants is exhibited by:
- * A. yellowing between the leaf veins while the veins remain green.
 - B. browning leaf margins.
 - C. pathogenic materials forming in the leaves.
 - D. leaves with a scorched appearance.
23. The _____ of the front of the home is usually the front door, with plantings leading the viewer's eye toward the door.
- A. attractive focus
 - B. social area
 - * C. focal point
 - D. attention focus
24. About _____ elements are considered essential nutrients for plant growth and development.
- A. 7
 - B. 9
 - * C. 16
 - D. 32
25. Suppose a home, when viewed from the front, has the same architectural features on each side of the front door. A(n) _____ balanced landscape would fit this home best.
- * A. symmetrically
 - B. informally
 - C. asymmetrically
 - D. rhythmically
26. An unthrifty potted plant that has dead roots at the bottom of the container but healthier roots near the top of the pot may indicate:
- * A. that the pot has been overwatered for an extended period of time.
 - B. the drain holes in the pot are too large.
 - C. that the pot is too small for the plant.
 - D. under-fertilization over an extended period of time.
27. Plants to be used in interiorscapes are produced in conditions for best plant growth. Before being placed in interiorscapes, where the growing conditions will be less desirable, the plants should be _____ to the new environment.
- * A. acclimated
 - B. softened
 - C. scaled
 - D. espaliered
28. Most plants do not grow well in wet, poorly drained soils because of:
- * A. low oxygen content.
 - B. high pH.
 - C. excess nitrogen.
 - D. low soil temperature.

29. The process of converting food energy into energy for plant growth is called:
- * A. respiration.
 - B. photosynthesis.
 - C. acclimatization.
 - D. transpiration.
30. Providing _____ is one technique often used to help speed up the rooting of cuttings.
- A. soil cooling
 - * B. bottom heat
 - C. leaf heating
 - D. extra fertilizer
31. Plant clones may be produced in several ways, including:
- * A. stem cuttings.
 - B. sexual and asexual propagation.
 - C. sexual propagation.
 - D. seeds.
32. Herbicides may be classified as _____ based on the time of their application.
- A. pre-selective or post-selective
 - * B. pre-emergence or post-emergence
 - C. utility or general purpose
 - D. selective or nonselective
33. Most plants grow best in soil with a pH range of _____.
- A. 3.5 to 5
 - B. 4 to 5
 - * C. 6 to 6.5
 - D. 7 to 8
34. When using a riding lawn mower on slopes, it is safer to mow:
- A. in a circular pattern on the slope.
 - B. across the slope.
 - C. diagonally across the slope.
 - * D. up and down the slope.
35. The best time of day to take stem cuttings of landscape plants for propagation is:
- A. mid-day.
 - * B. early morning.
 - C. early evening.
 - D. mid-afternoon.
36. To help assure grass seeds are distributed evenly during planting:
- A. use a drop spreader with a setting of seven.
 - B. use a rotary spreader with a setting of nine.
 - C. sow one-half of the seed by hand and one-half of the seed with a spreader.
 - * D. sow one-half the seed in one direction and sow one-half at right angles to the first direction of seeding.

37. As general rule, when applying liquid pesticides:
- * A. spray just until the solution begins to drip slightly from the leaves.
 - B. spray until approximately 1/3 of the solution applied has dripped from the plant.
 - C. apply two short blasts of spray to each area of the plant.
 - D. apply three short blasts of spray to each area of the plant.
38. In landscape terms, which of the following best defines an invasive species?
- A. a native plant that grows rapidly, over-taking cultivated landscape plants.
 - * B. a non-native aggressive plant species that crowds-out native plants and other cultivated species.
 - C. a plant species with an aggressive and extensive root system that clogs septic and water lines.
 - D. any undesirable plant.
39. The rooting medium for cuttings of most landscape plants should be:
- A. high in fertility.
 - * B. low in fertility.
 - C. very fine textured.
 - D. inorganic only.
40. Which of the following would be found on a four-cycle engine but not on a two-cycle engine?
- A. carburetor
 - * B. oil tank
 - C. spark plug
 - D. fuel tank
41. The term organic means:
- * A. a material derived from plant or animal materials.
 - B. better than non-organic products.
 - C. safer than non-organic products.
 - D. All of these.
42. Plants that are very tolerant of dry conditions are called:
- A. conifers.
 - * B. xerophytes.
 - C. monocotyledonous.
 - D. dicotyledonous.
43. When grafting, special attention is given to:
- * A. matching the cambium layer of the rootstock with the cambium layer of the scion.
 - B. making sure that the scion is smaller than the rootstock.
 - C. selecting a scion that is at least two times larger than the rootstock.
 - D. selecting scion wood from the same tree as the rootstock.
44. Should employees become injured or ill due to work-related causes, they can receive financial assistance through their state's _____ program.
- A. OSHA Reimbursement
 - * B. Workers' Compensation
 - C. FEMA Assistance
 - D. APHIS Worker Assistance

45. Which of the following are all fixed assets?
- A. land, buildings, cash-on-hand
 - B. buildings, inventory, bank balance
 - C. cash-on-hand, Inventory, tractors
 - * D. land, buildings, irrigation pond
46. To prevent destroying good soil structure, do not till the soil:
- A. when it is humid.
 - * B. when it is very wet.
 - C. when the moon is full.
 - D. when the air temperature is below 30° F or above 90° F.
47. The depth seeds should be planted is determined mainly by:
- * A. the size of the seeds.
 - B. the depth of the flat.
 - C. the viability of the seeds.
 - D. all the above.
48. Xeriscaping is best defined as:
- A. the use of techniques to minimize landscape plants and maximize hardscape materials.
 - B. the absence of landscaping.
 - * C. a type landscaping that utilizes techniques to conserve water.
 - D. a landscape using mostly hardscape materials with no in-ground plants, and limited containerized plants.
49. When "orientalis" is used in the botanical name of a plant, it means that the plant:
- * A. is native to, or originated in, eastern Asia.
 - B. should be planted with a specific orientation.
 - C. is closely related to occidentalis plants.
 - D. is a 'shade loving' plant.
50. Which Federal agency was established to make the workplace safer?
- * A. OSHA
 - B. EPA
 - C. USDA
 - D. APHIS

End
FBF