

**STATE FFA FLORICULTURE CONTEST**  
**General Knowledge Section**  
**1996**

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

1. Root systems in plants are classified as either tap or \_\_\_\_\_.  
A. crown                      B. vertical                      C. fibrous                      D. lateral
2. The main function of plant leaves is:  
A. carbohydrate production.                      B. regeneration.  
C. evaporation.                      D. oxidation.
3. Ferns are different from most horticultural crops because they reproduce from:  
A. flowers.                      B. fruit.                      C. seed.                      D. spores.
4. Photoperiodism is a plant response to:  
A. day length.                      B. cool temperatures.  
C. gases from greenhouse heaters.                      D. warm temperatures.
5. The number 8 in a 12-4-8 fertilizer represents:  
A. calcium.                      B. nitrogen.                      C. phosphorus.                      D. potassium.
6. The range of the pH scale is:  
A. 1 to 7.                      B. 1 to 14.                      C. 7 to 14.                      D. not limited
7. The main disadvantage of producing plants from seeds is that:  
A. cross-pollination often produces seedling variation.  
B. many homeowners can do it.  
C. pretreatment takes too long.  
D. storage is difficult.
8. African violets are usually propagated by:  
A. air layering.                      B. budding.                      C. stem cuttings.                      D. leaf petiole cuttings.
9. Seedlings are hardened off by:  
A. moving them to a warmer house.  
B. increasing fertilization and watering.  
C. reducing water and using cooler temperatures.  
D. placing them in heavy shade.
10. Water hose ends should be kept off the ground or floor to prevent:  
A. hose rot.                      B. backflow.  
C. spread of disease.                      D. wet bed areas.
11. What is the main advantage of raised beds?  
A. Irrigation requirements are reduced.                      B. Fertilization needs are reduced.  
C. Raised beds have better drainage.                      D. The beds have better sun exposure.
12. General purpose fertilizers must be applied:  
A. less often than slow release fertilizer.  
B. more frequently than slow release fertilizers.  
C. at the same rate and frequency as slow release fertilizer.  
D. earlier in the Spring and later in the Fall than slow release fertilizers.

13. In one stage of complete metamorphosis the insect does not feed and is primarily inactive. This stage is the \_\_\_\_\_ stage.  
A. maggot                      B. larva                      C. nymph                      D. pupa
14. Which is commonly used for a cut flower?  
A. Alstroemeria              B. Geranium              C. Begonia              D. Pansy
15. Aluminum foil collars are often used on tomato and pepper plants in the garden to protect them from:  
A. cutworms.              B. flea beetles.              C. verticillium wilt.              D. wire worms.
16. *Bacillus thuringiensis* is:  
A. a bacterial insecticide.  
B. a plant that resembles cornuta hollies.  
C. a chemical insecticide.  
D. one of the first landscape plants produced through biotechnology.
17. A molluscicide is a pesticide used for the control of:  
A. bacteria.              B. nematodes.              C. slugs.              D. weeds.
18. Fumigant pesticides are in a \_\_\_\_\_ form.  
A. gas              B. liquid              C. powder              D. solid
19. One reason pests develop resistance to a pesticide is that:  
A. many pests that are not treated survive and multiply.  
B. pesticides kill all pests with each application.  
C. pesticides selectively kill the most sensitive pests.  
D. repeated pesticide applications become more effective.
20. Which signal word on a pesticide label indicates the most hazardous material?  
A. Caution              B. Danger              C. VERY Hazardous              D. Warning
21. House plants that can survive under low light conditions require a minimum of:  
A. 5-10 foot candles.              B. 50-100 foot candles.  
C. 1000-5000 foot candles.              D. 5000-9000 foot candles.
22. With potted plants, the presence of a white, flaky film on the soil surface or pot rim (especially on clay pots) indicates:  
A. fungus growth.  
B. a mealybug infestation.  
C. excessively drained soil.  
D. salt buildup.
23. Weeping fig (*Ficus benjamina*) moved directly from a high light growing area to an interior room will often drop its leaves because of:  
A. high humidity.              B. low temperature.  
C. improper acclimatization.              D. moist heat.
24. Which of the flowers listed is least shade tolerant?  
A. Begonia              B. Coleus              C. Impatiens              D. Marigold
25. Proper maintenance of marigolds in landscape beds includes:  
A. deep cultivation once per month.  
B. very little fertilization.  
C. dead-heading.  
D. pruning of lateral flower buds.

26. Saving vegetable seed from the home garden is recommended only for:  
A. di-hybrid crossed plants. B. hybrid varieties.  
C. open-pollinated varieties. D. hybrid tomatoes and sweet corn.
27. Which month would you most likely pot poinsettia cuttings to produce a saleable crop in 6" pots?  
A. November B. July C. May D. September
28. Which of the following is true in terms of customer service?  
A. Customers should always be greeted right away.  
B. If a salesperson is good, appearance does not matter.  
C. When making change for a sale, put the customers bill in the register first.  
D. All of the above.
29. A commercial fertilizer with a 3:1:2 ratio is:  
A. 4-12-8. B. 8-4-12. C. 12-4-8. D. 14-4-8.
30. Which soil absorbs water the slowest?  
A. clay B. loam C. sand D. sandy loam
31. To make the soil more alkaline, what product would you apply?  
A. iron B. lime C. phosphorus D. sulphur
32. The key to developing an effective integrated pest management program (IPM) is:  
A. the systematic use of pesticides.  
B. the regular use of slow-release pesticides.  
C. the systematic monitoring of pest populations.  
D. weekly pesticide applications.
33. The \_\_\_\_\_ of hydrangeas can be changed by changing the pH of the soil.  
A. flower color B. flower size C. plant shape D. leaf texture
34. Some common plant diseases caused by fungus are:  
A. bacterial leaf spots and mosaics.  
B. pythium root rot and powdery mildew.  
C. damping off and scale.  
D. mycelial fragments.
35. A pre-emergence herbicide:  
A. works by killing the weeds root system.  
B. kills weed seed as they germinate.  
C. translocates through the roots to the foliage.  
D. is sprayed onto the foliage of the weed.
36. All of the following are principles of design used in floral design EXCEPT:  
A. balance. B. proportion. C. rhythm. D. cycle.
37. Which of the following improves soil drainage and aeration?  
A. sand B. perlite C. vermiculite D. all the above
38. A 50 pound bag of 5-10-15 contains \_\_\_\_\_ pounds of nitrogen.  
A. 2.5 B. 5 C. 10 D. 30

39. Which of the following solutions is best to disinfect used pots?  
A. 1 part bleach to 1 part water  
B. 1 part bleach to 3 parts water  
C. 1 part bleach to 10 parts water  
D. 2 parts bleach to 1 part water
40. Soil left from dead and diseased plants should be:  
A. adjusted for pH.  
B. discarded.  
C. allowed to dry out.  
D. remixed.
41. Which of the following methods is considered sexual propagation?  
A. air layering  
B. T-budding  
C. cleft grafting  
D. seed planting
42. Which type of cutting is wounded to improve rooting?  
A. leaf tip  
B. herbaceous  
C. woody  
D. leaf petiole
43. When should you apply most fertilizer?  
A. at harvest  
B. at blooming time  
C. before propagation  
D. during vegetative growth
44. Which is a worm-like pest that attacks plant roots?  
A. Mealybugs  
B. Mites  
C. Nematodes  
D. Aphids
45. What is the best rooting medium to use for air layering?  
A. ground bark  
B. peat  
C. soil  
D. sphagnum moss
46. How many cubic feet are there in a cubic yard of soil?  
A. 3  
B. 6  
C. 9  
D. 27
47. What do you call a mechanical device which introduces a concentrated fertilizer solution into the pipeline used for watering plants?  
A. Applicator  
B. Audiometer  
C. Proportioner  
D. Pump
48. Which of the following is NOT required on a job application?  
A. religion  
B. educational background  
C. employment history  
D. references
49. Gladiolus are:  
A. seldom used by florists.  
B. used as line flowers in floral designs.  
C. come in two colors.  
D. used as filler flowers in floral designs.
50. A pollen grain moves first from the anther to the \_\_\_\_\_ to begin its journey to the ovary for fertilization.  
A. stigma  
B. cambium  
C. sepal  
D. serge