

**Minnesota FFA  
2015 State Floriculture Exam**

- 1) New businesses should realize that it usually requires \_\_\_\_\_ for the business to show a profit and owners should plan accordingly.
  - A) 3 to 5 months
  - B) 1 to 3 years
  - C) 15 to 24 months
  - D) 3 to 5 years
  
- 2) What is the proper term to describe the cold treatment, which lasts several weeks and precedes initiation of flower buds?
  - A) Pot cooling
  - B) Vernalization
  - C) Case cooling
  - D) CTF cooling
  
- 3) \_\_\_\_\_: Young leaves develop interveinal chlorosis, however, the tips and lobes of these leaves may remain green. Next, the youngest fully expanded leaves rapidly become necrotic. The sudden death of these leaves resembles desiccation.
  - A) Copper deficiencies
  - B) Boron deficiencies
  - C) Molybdenum deficiencies
  - D) Boron toxicities
  
- 4) The ADT formula is:
  - A)  $ADT = (\text{day temperature} \times \text{hours}) + (\text{night temperatures} \times \text{hours}) + 12$
  - B)  $ADT = (\text{day temperature} - \text{hours}) \times (\text{night temperatures} + \text{hours}) \text{ divided by } 24$
  - C)  $ADT = (\text{day temperature} \times \text{hours}) - (\text{night temperatures} \times \text{hours}) \times 12$
  - D)  $ADT = (\text{day temperature} \times \text{hours}) + (\text{night temperatures} \times \text{hours}) + 24$
  
- 5) \_\_\_\_\_ are the most profitable major holiday pot plant crop produced.
  - A) Christmas Peppers
  - B) Poinsettias
  - C) Valentine Roses
  - D) Easter Lilies
  
- 6) An S-shaped line mass design is a \_\_\_\_\_ curve.
  - A) Crescent
  - B) Oval
  - C) Naturalistic
  - D) Hogarth
  
- 7) A \_\_\_\_\_ is an area located in the lower half of the design that ties or visually pulls an arrangement together.
  - A) Center of interest
  - B) Candelabra design
  - C) Conical centerpiece
  - D) Calyx

- 8) The cornucopia, or horn of plenty, has been used for centuries as a symbol of \_\_\_\_\_.
- A) Fruitfulness
  - B) Abundance
  - C) Distinction
  - D) Love
- 9) An equilateral triangle-shaped arrangement will be as \_\_\_\_\_ as it is \_\_\_\_\_.
- A) Round, tall
  - B) Round, wide
  - C) Tall, wide
  - D) Short, round
- 10) \_\_\_\_\_ makes an excellent centerpiece because it is attractive when viewed from either the front or the back.
- A) Horizontal design
  - B) Right triangle
  - C) Asymmetrical balance
  - D) Tuzzy-muzzy
- 11) Filler flowers add a finishing touch to an arrangement. The two types of filler flowers used in flower arrangements are \_\_\_\_\_ and \_\_\_\_\_.
- A) Feather, wax
  - B) Bunch, feather
  - C) Wax, bunch
  - D) None of the above
- 12) A \_\_\_\_\_ is designed as having a naturally occurring, unique set of characteristics and is separated from other closely related species by location, flowering time, and so on.
- A) Plant species
  - B) Commercial plant
  - C) Root system
  - D) Fabricated species
- 13) The unique characteristics of a species are usually transmitted to the next generation through \_\_\_\_\_ or \_\_\_\_\_.
- A) Roots, bulbs
  - B) Seeds, soil
  - C) Seeds, spores
  - D) Spores, bulbs
- 14) One of the most common diseases suffered by Poinsettias is:
- A) flower drop
  - B) root rot
  - C) blight
  - D) none of these
- 15) The mum is a short-season crop. This means that it flowers:
- A) in a very short period of time
  - B) when days are short and nights are long
  - C) only on chrysanthemum plants that are very short
  - D) in areas that have a shorter than average growing season

- 16) The newest class of insecticides is insect growth regulators. They control insects by:
- A) stomach poisoning
  - B) changing their normal growth cycle
  - C) killing their eggs
  - D) all of the above
- 17) Faded blossom should be removed from annuals because:
- A) they prevent the plants from setting seed and using strength for seed formation
  - B) it improves the appearance of the plant
  - C) new flowers develop faster when old ones are removed
  - D) all of the above
- 18) Florists tape is used to:
- A) cover exposed florists wire
  - B) hold the flower more tightly
  - C) cover exposed flower stems
  - D) all or the above
- 19) Sandy soils, often called light soils have:
- A) large soil particles and large pore space
  - B) good drainage but little moisture-holding capacity
  - C) good aeration
  - D) all of the above
- 20) Potassium causes plants to:
- A) produce more flowers and seeds
  - B) resist disease and develop strong roots
  - C) grow much larger than they otherwise would
  - D) grow rapidly and develop a dark green color
- 21) To raise soil pH and lower soil acidity:
- A) more nitrogen is added to the soil
  - B) lime is added to the soil
  - C) a complete fertilizer is added to the soil
  - D) sulfur is added to the soil
- 22) Seeds are composed of:
- A) root system, starch, and seed coat
  - B) eye, starch, and seed coat
  - C) seed coat root and stem
  - D) seed coat, endosperm, and embryonic plant
- 23) Regarding types of water in the soil, gravitational water is:
- A) The water left after capillary water moves in all directions
  - B) the available capillary water
  - C) water held against the force of gravity
  - D) water that the soil is unable to hold against the force of gravity

- 24) The chemicals B-Nine and A-Rest are
- A) growth stimulators and tend to lengthen stem growth
  - B) growth retardants and tend to shorten stem growth
  - C) produce more flowers per plant
  - D) aid cuttings in forming roots
- 25) Extending the day length to eighteen hours will cause lilies to grow taller. Tall lilies are:
- A) desirable for cut flowers and desirable for plants sold in pots
  - B) desirable for cut flowers and not desirable for plants sold in pots
  - C) not desirable for cut flowers and desirable for plants sold in pots
  - D) not desirable for cut flowers and not desirable for plants sold in pots
- 26) For a pesticide with a label LD<sub>50</sub> the 50 means that
- A) it is safe to use on 50 % of greenhouse plants
  - B) it will kill 50 % of a given insect population
  - C) that 50 % of test animals are killed by this dose
  - D) none of the above
- 27) A material that is used in growing mixes that will retain a large amount of water is:
- A) bark
  - B) peat moss
  - C) perlite
  - D) sand
- 28) A stolon is a(n):
- A) underground stems that grow horizontally and produce roots
  - B) swollen end of side shoot or stem
  - C) a very solid, compact stem with nodes and internodes
  - D) thickened roots that contain large amounts of stored food
- 29) Which of the following plant pairs require long night (short day) conditions for flowering?
- A) Azalea and Rose
  - B) Carnation and Poinsettia
  - C) Poinsettia and Chrysanthemum
  - D) Chrysanthemum and Azalea
- 30) The removal of lateral flower buds from stems, such as carnations and chrysanthemums, is called:
- A) Soft pinch
  - B) Deadheading
  - C) Hard pinch
  - D) Disbudding
- 31) The term 'cultivar' has become widely used in the horticulture industry. What does the term cultivar mean?
- A) cultural variation is required
  - B) cultivation of media required weekly
  - C) cultivated variety
  - D) none of the above

- 32) The growing point of most dicots is best described as the
- A) cotyledon
  - B) internode
  - C) vascular tissue
  - D) apical meristem
- 33) The movement of water, soluble organic materials synthesized within the cells, and nutrients from one part of a plant to another is termed \_\_\_\_\_.
- A) translocation
  - B) absorption
  - C) assimilation
  - D) photoperiodism
- 34) Most houseplants like a humidity in the range of
- A) 10-35%.
  - B) 30-55%.
  - C) 50-75%.
  - D) 75-100%.
- 35) Costs associated with making an arrangement, decorating a blooming plant, or creating wedding flowers are called:
- A) direct costs
  - B) indirect costs
  - C) fixed costs
  - D) overhead
- 36) Which of the following is likely to be the most alkaline component of your greenhouse media?
- A) peat moss
  - B) pine bark
  - C) perlite
  - D) vermiculite
- 37) Organic matter is added to a sandy soil to
- A) increase the water holding capacity.
  - B) increase the pore space.
  - C) neutralize the soil pH.
  - D) decrease the water holding capacity.
- 38) The process of killing all living cells, especially microorganisms, is known as
- A) sterilization
  - B) pasteurization
  - C) fumigation
  - D) suberization
- 39) Advantages of a good artificial media over native soil are
- A) it is sterile and uniform in content
  - B) it is lighter in weight and therefore easier to handle and ship
  - C) it has good drainage and moisture-holding ability
  - D) all the above

- 40) These insects are identified by the cottony material found on stems and along leaf veins:
- A) Aphids
  - B) Mealybugs
  - C) Spider mites
  - D) Whiteflies
- 41) Fungus disease are spread by small seed like structures called
- A) spores
  - B) roots
  - C) pollen
  - D) nematodes
- 42) The purpose of circulation and exhaust fans in a greenhouse is to...
- A) regulate temperature.
  - B) adjust the humidity.
  - C) provide air movement.
  - D) all of the above.
- 43) \_\_\_\_\_ is a rigid greenhouse covering that is made of double layers, has high light transmission, is flame retardant and has the strongest resistance to breakage.
- A) Polyethylene
  - B) Fiberglass
  - C) Polycarbonate
  - D) Glass
- 44) Fertilizers are often described with three numerals (15-15-15, 10-30-10, etc). What elements do the three numerals stand for?
- A) nitrogen – potassium – phosphorus
  - B) phosphorus-potassium-magnesium
  - C) ammonium-calcium-aluminum
  - D) nitrogen-phosphorus-potassium
- 45) When crops are grown using ‘hydroponics’ it means that the plants were
- A) grown using a nutrient solution
  - B) grown using a peat based media
  - C) grown with a rockwool media
  - D) grown with reduced water
- 46) When grafting plants, the part of the graft that provides the root is called the \_\_\_\_\_ while the added piece is called the scion.
- A) Graft union
  - B) Stock
  - C) Interstock
  - D) Approach
- 47) Producing plants from seed is a type of \_\_\_\_\_ propagation.
- A) asexual
  - B) bisexual
  - C) sexual
  - D) unisexual

- 48) \_\_\_\_\_ is the most common and often used method of asexual propagation.
- A) Grafting
  - B) Budding
  - C) Layering
  - D) Cutting
- 49) The process by which the energy of sunlight is converted into chemical energy by green plants is known as:
- A) phototropism
  - B) photosynthesis
  - C) photoperiodism
  - D) transpiration
- 50) Transports water and nutrients from roots to other parts of the plant...
- A) xylem
  - B) phloem
  - C) pith
  - D) cambium
- 51) What is a chemical messenger produced by plant tissue that controls plant growth?
- A) hormones
  - B) phosfon
  - C) ethylene
  - D) floral
- 52) Secondary colors consists of:
- A) Orange, green and violet
  - B) Yellow, red and blue
  - C) Orange, blue-violet and blue green
  - D) None of the above
- 53) A hue with black added is termed a:
- A) Chroma
  - B) Tone
  - C) Shade
  - D) Tint
- 54) The principle of arranging which involves the repetition of shapes, forms, and/or lines; through a progression of small, medium, and large flowers; through a progression of color from light to dark; or through a continuous line movement is:
- A) accent
  - B) rhythm
  - C) harmony
  - D) balance
- 55) Two colors directly opposite one another on the color wheel are termed:
- A) Balanced
  - B) Split complementary
  - C) Direct complementary
  - D) Analogous harmony

- 56) A corm is made of what kind of tissue?
- A) stem
  - B) leaf
  - C) tuberous root
  - D) root
- 57) The piercing method of wiring flowers is used on flowers with a large calyx such as:
- A) chrysanthemum and roses
  - B) carnations and roses
  - C) lilies and roses
  - D) iris and roses
- 58) Number three ribbon is :
- A)  $\frac{1}{4}$ " wide
  - B)  $\frac{3}{8}$ " wide
  - C)  $\frac{5}{8}$ " wide
  - D)  $\frac{7}{8}$ " wide
- 59) Plants respire
- A) only in daylight
  - B) only in darkness
  - C) 24 hours a day
  - D) whenever photosynthesis is occurring
- 60) Transpiration is a process in which plants:
- A) lose water through stomata in the leaf
  - B) breathe through the leaves
  - C) lose water through the leaf epidermis
  - D) none of the above

## 2015 State FFA Convention – Floriculture Answer Key

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|-----|----|-----|---|
| 1.  | D  | 31. | C |
| 2.  | B  | 32. | D |
| 3.  | A  | 33. | A |
| 4.  | D  | 34. | C |
| 5.  | D  | 35. | A |
| 6.  | D  | 36. | D |
| 7.  | A  | 37. | A |
| 8.  | B  | 38. | A |
| 9.  | C  | 39. | D |
| 10. | A  | 40. | B |
| 11. | B  | 41. | A |
| 12. | A  | 42. | D |
| 13. | B  | 43. | C |
| 14. | B  | 44. | D |
| 15. | B  | 45. | A |
| 16. | B  | 46. | B |
| 17. | A  | 47. | C |
| 18. | D  | 48. | D |
| 19. | D  | 49. | B |
| 20. | B  | 50. | A |
| 21. | B  | 51. | A |
| 22. | D  | 52. | A |
| 23. | D  | 53. | C |
| 24. | B  | 54. | B |
| 25. | B  | 55. | C |
| 26. | C  | 56. | A |
| 27. | B  | 57. | B |
| 28. | A  | 58. | C |
| 29. | C  | 59. | C |
| 30. | D. | 60. | A |