

Texas FFA Floriculture Question Bank

- Honeydew on the leaves and ants crawling around a plant indicate:
 - Slugs
 - Aphids
 - Thrips
 - Fungus
- Fertilization in a flower takes place when:
 - Pollen grain touches the stigma
 - Pollen grain touches the ovary
 - Pollen is released from a flower
 - A sperm and egg unite
- Vase life is the length of time that:
 - A glass vase can be expected to go unbroken
 - A flower container remains in style
 - Cut flowers usually remain acceptable
 - A plastic vase will remain watertight
- If a hue is diluted with gray, the resulting color is called:
 - Tone
 - Shade
 - Tint
 - Value
- The order of the elements in a 5-10-5 fertilizer analysis is:
 - NKP
 - NPK
 - KPN
 - PNK
- If a flower arrangement appears to be ready to fall over, it lacks:
 - Balance
 - Focus
 - Rhythm
 - Harmony
- A person is exposed to the highest concentration of a pesticide during:
 - Clean equipment
 - Reading directions
 - Mixing
 - Application
- It is important not to keep fruit baskets in the same cooler with fresh flowers because:
 - Fruit flies eat flower petals
 - Banana and apples give off an odor that is absorbed by the flowers
 - Ethylene gas from the fruit will cause the flowers to age quickly
 - Florists shouldn't sell fruit – that's the job of the grocery store
- The stomata of a plant leaf:
 - Prevent disease organisms from entering the plant
 - Regulate nutrient entry from foliar fertilizer applications
 - Must open to allow light to reach the chlorophyll for photosynthesis
 - Regulate water vapor loss from the plant
- A method of applying pesticides to plants that can be effectively used in greenhouse but not outdoors is:
 - Spraying
 - Fumigation
 - Dusting
 - Soil drenching
- A flowering pot marketed throughout the year is:
 - Poinsettia
 - Easter Lily
 - Geranium
 - Chrysanthemum

12. To check if a plant needs water, touch the soil with your finger: if the plant needs water the soil will feel:
- A) Cool and moist
 - B) Dry and warm
 - C) Gritty
 - D) None of the above
13. The treatment given Easter lilies to speed flowering is called:
- A) Short days
 - B) Long days
 - C) Precooling
 - D) Drying off
14. An explant is:
- A) Plant produced from a tissue (meristem)
 - B) Plant produced from a leaf
 - C) Dead plant
 - D) Weed
15. The word photoperiod has to do with light:
- A) Quality
 - B) Duration
 - C) Intensity
 - D) Foot candles
16. Growing medium kept too wet will deprive plants of:
- A) Soluble salts
 - B) Water
 - C) Oxygen
 - C) Fertilizer
17. A pathogen is:
- A) Nutritional disorder
 - B) Genetically inherited disorder
 - C) Special propagation technique
 - D) Microorganism that causes a disease
18. The following florist crops are propagated by cuttings:
- A) Hydrangea, Easter lily, rose, orchid
 - B) Snapdragons, stock, Boston yellow daisy, gardenia
 - C) African violet, cut leaf philodendron, English ivy, Sprengeri asparagus fern
 - D) Carnation, chrysanthemum, poinsettia, azalea
19. Green plants manufacture sugar in the presence of sunlight. This process is called:
- A) Transpiration
 - B) Photosynthesis
 - C) Respiration
 - D) Krebs cycle
20. The highest percentage of florist industry sales are made by:
- A) Telephone
 - B) Walk-in customer
 - C) Regular customer
 - D) None of the above
21. Hydrangeas are forced for the following holidays:
- A) Thanksgiving, Christmas, Valentine's Day
 - B) Memorial Day, July 4th, Labor Day
 - C) Easter, Mother's Day, Memorial Day
 - D) Secretary's Day, Sweetest's Day, President's Day
22. The Alstromeria is most closely related to the following plant:
- A) Daffodil
 - B) Easter lily
 - C) Chrysanthemum
 - D) Abutilon

23. 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
24. _____ play a powerful role in advertising floral shops and in most locations leads all other media in sales return for dollar spent.
- A) Newspapers
 - B) Radio spots
 - C) Window displays
 - D) Telephone Sales
25. Systemic pesticides control the pest by:
- A) The use of progressively stronger applications of the material
 - B) Dissolving into and being moved by the plant sap
 - C) Systematically killing younger to older pests
 - D) Preventing insects from molting
26. The primary colors are:
- A) Red, yellow, and blue
 - B) Orange green and violet
 - C) Red, green and blue
 - D) Blue, orange, and violet
27. When ordering flowers from a wholesale florist, one should consider the following:
- A) Availability
 - B) Keeping quality
 - C) Price
 - D) All of the above
28. The most commonly used material for holding flowers is:
- A) Pin point holders
 - B) Frogs
 - C) Chicken wire
 - D) Floral foam
29. Foliage below the water line should be removed to:
- A) Prevent the leaves from decaying, which foul the water
 - B) Prevent photosynthesis
 - C) Prevent leaves from using stored food in the stem
 - D) All of the above
30. Flowers such as roses and carnations should be stored at:
- A) 45-50 degrees F
 - B) 36-40 degrees F
 - C) 30-35 degrees F
 - D) 55-60 degrees F
31. An example of a mass flower is:
- A. Snapdragon
 - B. Liatris
 - C. Rose
 - D. Larkspur
32. The size of the bow for a corsage should be:
- A) Four inches
 - B) As wide as the corsage is long
 - C) $\frac{1}{2}$ the length of the corsage
 - D) Slightly wider than the petals of the corsage
33. Pre-formed pot covers used on potted plants are called
- A) Picks
 - B) Speed covers
 - C) Quick wraps
 - D) Mylar tops

34. Florist azaleas are:
A) Herbaceous perennials
B) Bulbs
C) Small evergreen shrubs
D) Annuals
35. Which of the following is provided for a plant by its leaves?
A) Anchorage
B) A food factory
C) Shade
D) Support
36. The most important cut flower crops in the US are:
A) Gladiolus, orchids, gardenia
B) Mum, rose, carnation
C) Rose, snapdragon, gladiolus
D) Carnation, rose, orchid
37. The area within a composition occupied by material is called _____
A) Positive space
B) Negative space
C) Texture
D) Line
38. The flowers of Easter lilies last longer if:
A) The pistil is removed
B) The stamens are removed
C) The plant is kept in a warm place
D) It is sold only after the first flower has opened
39. The larger the gauge of florist wire indicates that the thickness is:
A) Shorter
B) Longer
C) Thicker
D) Thinner
40. Deluxe floral foam is used to:
A) Hold soft stemmed flowers
B) Absorb water quickly
C) Act as a preservative
D) Hold heavy stemmed flowers
41. The number of flowers usually in a cymbidium orchid corsage is:
A) Two
B) Three
C) Four
D) One
42. The most important environmental factor in orchid culture is:
A) Fertilization
B) Temperature
C) Watering and water quality
D) Light
43. The acceleration of flowering by manipulation of environmental conditions is known as:
A) Pulsing
B) Forcing
C) Leaching
D) After-ripening
44. Mass marketing is the sale of floral products:
A) In the supermarkets
B) In high-traffic locations
C) In large discount stores
D) All of the above

45. Optimum temperatures for poinsettia growth are:
A) 70-90 degrees
B) 60-80 degrees
C) 50-60 degrees
D) 45-55 degrees
46. 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
47. The function (s) of floral preservatives is (are) to:
A) Provide sugar
B) Supply a bactericide
C) Acidify the solution
D) All of the above
48. A grouping of closely spaced flowers, net and accessories in a hand-held floral arrangement is called:
A) Pompon
B) Corsage
C) Hogarthian curve
D) Nosegay
49. Field production of gladiolus is accomplished by using:
A) Corms
B) Cuttings
C) Crowns
D) Bulbs
50. This fungus attacks a wide variety of ornamental plants, probably causing more losses than any other single pathogen.
A) Pythium root rot
B) Botrytis cinerea
C) Alternaria
D) Phytophthora
51. Distorted flowers characterized by shorter petals, which give the rose a flattened appearance are called:
A) Flagged
B) Bullheads
C) Blind shoots
D) Deadheads
52. Which of the following is a true statement?
A) The lower the number, the thicker the wire and wider the ribbon.
B) The lower the number, the thicker the wire and narrower the ribbon.
C) The lower the number, the thinner the wire and narrower the ribbon.
D) The lower the number, the thinner the wire and wider the ribbon.
53. Specialty cut flowers may be defined as:
A) Cut flowers other than carnations, chrysanthemums and gladiolus
B) Cut flowers other than roses
C) Cut flowers other than roses, carnations and chrysanthemums
D) Cut flowers other than those grown in the field.
54. The size relationship of a floral arrangement with its surroundings is:
A) Harmony
B) Rhythm
C) Scale
D) Balance
55. The showy red, pink or white portions of the poinsettia are called:
A) Flowers
B) Bracts
C) Petals
D) Sepals

56. A speckled leaf appearance with fine silky strands between leaves and on lower leaf surfaces suggests the presence of:
- A) Botrytis
 - B) Mealybug
 - C) Damping-off
 - D) Spider mite
57. All of the following are bulbous and tuberous-rooted plants except:
- A) Dahlias
 - B) Dutch iris
 - C) Caladiums
 - D) Snapdragons
58. The majority of florist businesses are conducted in one location and annual gross sales are generally under:
- A) \$2,500,000
 - B) \$250,000
 - C) \$25,000
 - D) \$2500
59. The unit of heat measurement used in the greenhouse industry is the:
- A) BTU
 - B) CCM
 - C) EKG
 - D) UHM
60. There are three basic types of pots that are commonly used in the greenhouse industry. Which of the following is not one of the basic types?
- A) Designer pot
 - B) Standard pot
 - C) Azalea pot
 - D) Bulb pot or pan
61. Flowers, which are worn by men and pinned on a lapel, are called:
- A) Falcon corsage
 - B) Hand-tied bouquet
 - C) Boutonnieres
 - D) Potpourri corsage
62. This growth regulator increases the flower size of geranium and accelerates flowering in cyclamen:
- A) Auxin
 - B) Gibberellic acid
 - C) B-Nine
 - D) Ethephon
63. A more expensive decorative container into which a potted plant can be set is a:
- A) Jardinière
 - B) Quick sleeve
 - C) Vase
 - D) Rose bowl
64. Analogous color harmony utilizes:
- A) A combination of the primary and secondary colors
 - B) Two colors directly opposite each on the color wheel
 - C) Tints, shades and tones of one hue
 - D) Two or three adjacent colors on the color wheel
65. When completing flowers for a wedding you may work with all but one of the following arrangements except
- A) Cascade bouquet arrangement
 - B) Kneeling bench arrangement
 - C) Two-tiered guest table arrangement
 - D) Full couch spray arrangement
66. Certain plants are quite suitable for use in terrariums. Which, if any, of the following are suitable for this use?
- A) Creeping fig
 - B) Needlepoint ivy
 - C) None of the above
 - D) All of the above

67. These summer-blooming perennials produce dense, bristly balls of blue color:
A) Delphinium
B) Blue plumbago
C) Statice
D) Globe thistle
68. When growing orchids, a hygrometer is used to measure:
A) Temperature
B) Light
C) Air flow
D) Humidity
69. The hook method of wiring for floral arrangements is used for _____.
A) flat headed flowers
B) tubular flowers
C) delicate flowers
D) roses
70. Upper leaves which show interveinal chlorosis probably suffer from:
A) Lack of water
B) A sulfur deficiency
C) An iron deficiency
D) A nitrogen deficiency
71. Marigold seed which fails to emerge, or seedlings which die soon after emerging: from wet soil are the result of:
A) Damping off
B) Cutworm
C) Whitefly damage
D) Foliar nematodes
72. The flowers and leaves of a rose are mottled and streaked with silver, and dusty black droppings have collected. This damage is indicative of:
A) Fungus gnats
B) Thrips
C) Powdery mildew
D) Scale
73. African violets are typically propagated by:
A) Leaf cuttings
B) Stem cuttings
C) Air layering
D) Root division
74. _____ is the act of cutting flower stems properly and providing them with the proper treatment at any stage of the distribution process.
A) Slicing
B) Producing
C) Cleaning
D) Processing
75. The pricing method based on 40% of retail selling price is:
A) Ratio markup
B) Wholesale pricing
C) Retail cost of goods
D) Nesting pricing
76. Cut branches of evergreen 20-30 inches long are called:
A) Tips
B) Bales
C) Boughs
D) Bunches
77. The term "texture", as it applies to plants, includes such adjectives as:
A) Fine, medium and coarse
B) Smooth, fuzzy and spiny
C) Corymb, umbel and panicle
D) Entire, serrate, and lobed

78. A design that uses a complementary color scheme is one that:
- A) Uses flowers in various tints and shades of one color
 - B) Uses colors closely related to one another on the color wheel
 - C) Uses colors that are opposite to one another on the color wheel
 - D) Combines all colors
79. Cool colors include color combinations like:
- A) Red, red-orange, orange, yellow-orange, yellow
 - B) Blue-green, blue, blue-violet and violet
 - C) Black, white and green
 - D) Yellow, pink and red
80. The type of plant that lives for more than two years is:
- A) Annuals
 - B) Biennials
 - C) Perennials
 - D) Cuttings
81. The reason for putting irregularly shaped stones or broken pieces of pottery into the bottom of a pot containing flowering plants is:
- A) They let air into the pot from the bottom
 - B) They allow the roots to grow out of the bottom of the pot
 - C) It helps the soil to drain after being watered
 - D) Its just an old tradition passed down from person to person and does not help the plants
82. What is the purpose of 'pinching' plants?
- A) Pinching is the removal of dead flowers
 - B) Pinching helps the plant to become bushier
 - C) Pinching helps the plant by requiring less fertilizer
 - D) Pinching is the removal of large insects, such as beetles
83. This element is essential for strong stems, strong roots, and deep flower color. A deficiency in plants shows up as weak stems, and a yellowing and browning of leaves at their tips and edges.
- A) Nitrogen
 - B) Iron
 - C) Phosphorus
 - D) Potassium
84. The best time to water flowering plants is:
- A) In the morning
 - B) In the middle of the day
 - C) In the evening
 - D) At night
85. How many essential nutrients are essential to plant growth and reproduction?
- A) Three
 - B) Four
 - C) Six
 - D) Sixteen
86. When is the best time to divide a mature chrysanthemum?
- A) When it is about three inches tall in the spring
 - B) When the plant is not blooming during the summer
 - C) After blooming in the fall
 - D) When it is dormant in the winter
87. The pH on soil test results stands for:
- A) Acidity
 - B) Alkalinity
 - C) Potential hydrogen
 - D) Potential oxygen
88. When cutting roses to use indoors or to remove spent blossoms:
- A) Make the cut above the first strong, three-leaflet leaf
 - B) Do not leave at least two good leaves of the stem
 - C) Cut directly below the first strong, three-leaflet leaf
 - D) Cut directly below the first strong, five-leaflet leaf

89. A cutting garden is a plot of land set aside for the purpose of growing flowers for what use?
A) Outdoor bouquets only
B) Commercial florist
C) Supermarket florist
D) Indoor bouquets only
90. A correct way to remove mealy bugs from plants is:
A) Dab each bug with a cotton swab dipping in rubbing alcohol
B) Use a pesticide
C) Use a fungicide
D) Rinse the leaves with milk
91. Fertilizer that you add to your flowering plants contains the following elements in the correct order:
A) Potassium, nitrogen, iron
B) Nitrogen, phosphorus, potassium
C) Nitrogen, phosphorus, iron
D) Nitrogen, potassium, phosphorus
92. Japanese style of floral arrangement is known as:
A) Ikenobo
B) Yen
C) Ikebana
D) Yin
93. What type of water supply do cut flowers need to transport food and to keep the stems stiff?
A) Constant water supply
B) Occasional water supply
C) Periodic water supply
D) Cold water supply
94. Heavy-headed flowers, such as large mums, often bend by the flower head, nearly breaking off. What should be done to temporarily improve this situation?
A) Use hot glue gun to glue flower head on
B) Use string to tie flower head on
C) Use wire to tie flower head on
D) Insert tooth picks pointed through the bloom into the stem
95. A _____ has a flower bud within it surrounded by layers of food supply.
A) Corm
B) Rhizome
C) True bulb
D) Tuber
96. Plants need which part of the visible spectrum for good foliage development?
A) All of the visible spectrum
B) Red
C) Green
D) Blue
97. Abnormally streaked or striped flower petals are a symptom of 'flower breaking'. This problem is common tulips, lilies and gladiolus and is caused by:
A) Fungi
B) Thrips
C) Viruses
D) Aphids
98. What is the most important thing to do for bulbs to produce flowers during succeeding years?
A) Use a fertilizer high in iron
B) Use a fertilizer high in phosphorus
C) Use a fertilizer high in nitrogen
D) Grow a good crop of foliage
99. Which type of rose has multiple large flowers on a single stem?
A) Polyanthas
B) Floribundas
C) Grandifloras
D) Hybrid teas

100. What is a good sign that potted plants need to be repotted?
A) New leaves are quite a bit smaller than older ones
B) New leaves are quite a bit larger than older ones
C) Leaves are turning yellow
D) The plant is becoming tall and lanky
101. A _____ is a floral piece commonly displayed at funerals.
A) Standing spray
B) Boutonniere
C) Corsage
D) Frame
102. Most indoor foliage plants need which kind of lighting?
A) Direct sunlight
B) Bright light
C) Bright indirect light
D) Medium light
103. In order to survive in the florist business, an owner/manager must be able to determine the true value of the product and strive for improvement of the perceived value. This is called
A) Discount pricing
B) Retail pricing
C) Premium pricing
D) Profit Pricing
104. The principle of total compatibility of all parts of an arrangement with each other is termed:
A) Rhythm
B) Texture
C) Harmony
D) Proportion
105. The term hard good means:
A) Cut flowers are stored at improper temperatures and harden
B) What happens to floral foam after it is used and dries out
C) Nonperishable items used in designing such as containers
D) Nonperishable items used in designing such as flowers and foliage
106. A process used by growers to produce well-branched, compact plants with many flowers is called:
A) Stunting
B) Compacting
C) Pinching
D) Potting
107. Cut carnations are classified into two groups:
A. Floral and greenhouse
B) *Standards and miniatures*
C) Premium and discount
D) None of the above
108. Food is translocated through a tissue called the:
A) Phloem
B) Xylem
C) Cambium
D) Cortex
109. Parallel leaf venation, lack of annular rings, and floral parts in multiples of three, are distinguishing characteristics of:
A) Gymnosperms
B) Pteridophytes
C) Monocots
D) Dicots
110. Transpiration is:
A) Absorption of water by a plant
B) When the pollen is released from the flower
C) The loss of water vapor from the plant
D) The process of converting carbon dioxide and light into sugar

111. The adjustment of a plant from production conditions to interior conditions is called:
A) Light metering
B) Humidity
C) Acclimatization
D) Photosynthesis decline
112. Peat is often mixed into the growing medium of container plants because it:
A) Is inexpensive
B) Has good air and water holding capacities
C) Has a high pH
D) Absorbs excessive soluble salts
113. A poinsettia crop that is four weeks late in flowering for Christmas was very likely exposed to:
A) A gas leak
B) An herbicide
C) Too much CO₂
D) Lighting at night
114. Damping-off disease of seedlings is caused by:
A) Bacteria
B) Virus
C) Fungus
D) Fertilizer
115. Food is manufactured in the leaves of plants when they are exposed to light. This process is called:
A) Translocation
B) Assimilation
C) Photosynthesis
D) Respiration
116. A 'stretched' plant is one that:
A) Has taken too long to reach marketable size
B) Produces flowers beyond its natural flowering time
C) Is a vine
D) Has grown excessively long stems
117. Chrysanthemums and poinsettias are grown commercially under long nights. This is needed to:
A) Promote seedling growth
B) Enhance leaf size and quality
C) Initiate and develop flowers
D) Produce larger, taller plants
118. A good substitute for sand, this material provides for aeration in the growing media:
A) Peat moss
B) Perlite
C) Compost
D) Rock wool
119. The timing of an Easter lily crop is complicated because:
A) The earlier the date of Easter, the longer it takes to force them
B) The size of the rooted cuttings determines the date of flowering
C) The seeds germinate irregularly over a long period of time
D) The later the date of Easter, the longer it takes to force them
120. Most greenhouse crops stop growing when the air temperature goes above:
A) 95°F
B) 85°F
C) 90°F
D) 80°F
121. Soil structure refers to:
A) The components of the soil
B) The arrangement of soil particles
C) Both a and b above
D) The size of the soil particles

122. With the exception of the horizontal design, how high in relation to its width should a design be made?
A) 2-1/2 to 3 times the width
B) 2 to 2-1/2 times the width
C) 1-1/2 to 2 times the width
D) 1 to 1-1/2 times the width
123. Focus in floral design refers to:
A) Attraction of the observers' eye to a central point
B) Transition from dark to central point
C) Attraction of the observers eyes to the outline form of the arrangement
D) A gradation of sizes of flowers
124. Cut flowers and 'greens' are held in refrigerators at a temperature range of:
A) 40-45oF
B) 35-40oF
C) 30-32oF
D) 45-50oF
125. A floral arrangement should be finished on all sides if it is to be placed:
A) On a mantle
B) On a bookcase
C) Against a wall
D) In front of a mirror
126. When designing a floral arrangement, after the container has been prepared, one should:
A) Establish the focal point
B) Begin filling in
C) Drain out all the water
D) Establish the lines
127. The following is an analysis for a complete fertilizer for commercial use:
A) 2-1-0
B) 5-10-5
C) 0-45-0
D) 0-20-10
128. This citric acid solution causes flowers to take up water rapidly to prevent dehydration after flowers have been dry packed.
A) Orange juice
B) Sanitizer
C) Hydrating solution
D) Floral Preservative
129. To create a strong focal point, a designer should _____ at the focal point.
A) Use tight buds so the flowers will last longer and make a more dramatic effect
B) Use flowers with a bright chroma
C) Place flowers closer together
D) Space the flowers farther apart
130. Use of the following materials is regulated by both Federal and state laws:
A) Insecticides, fungicides
B) Insecticides, fungicides, miticides
C) Insecticides, fungicides, miticides, herbicides
D) Insecticides, fungicides, miticides, herbicides, plant growth regulators
131. Early warning signs of poisoning of humans by an organophosphate insecticide may include:
A) Tightness in chest, narrowing pupils, headache
B) Numbness in hands and feet
C) Turning purple
D) Loss of memory
132. If you have a work related problem that you do not know how to solve, you should take it to your supervisor:
A) To complain about it
B) For him/her to solve
C) With alternative solutions
D) After you have tried a solution

133. If a customer you are serving has a complaint, the first thing that you should do is:
- A) Listen very carefully
 - B) Refer it to your supervisor
 - C) Write down his/her name and address
 - D) Ask the customer to wait while you check on what to do
134. Gladioli are:
- A) Seldom used by florists
 - B) Used as 'line' flowers in a floral design
 - C) Come in only two colors
 - D) Poor keepers
135. Overhead costs include everything not accounted for in:
- A) Taxes
 - B) Rebates
 - C) Indirect costs
 - D) Direct costs
136. A florist is most likely to be promptly paid when charged account bills are mailed:
- A) Monthly
 - B) Bi-weekly
 - C) Weekly
 - D) The day after purchase
137. When should plants be watered?
- A) 30 minutes after sun set
 - B) 30 minutes prior to sunrise
 - C) Just prior to wilting or water stress occurs
 - D) Immediately after wilting or water stress occurs
138. The principles of design are fundamental truths that have evolved as the various art forms have developed. Which of the following is NOT among the major principles of design?
- A) Balance
 - B) Scale
 - C) Emphasis
 - D) Price
139. In traditional arrangements, materials with higher visual weight are used lower in the arrangement to create stable effect; they are sunken a little further into the arrangement for depth. Identify the significant principles of design that are related to balance:
- A) Color & tone
 - B) Stability & depth
 - C) Size & shape
 - D) Lighting & distance
140. The characteristics of a formal arrangement include all but one of the following. Identify the characteristic which is NOT normally associated with a formal arrangement.
- A) Arrangement is usually symmetrically balanced
 - B) Flowers used include roses, orchids and carnations
 - C) Arrangement may be placed off-center
 - D) Textures are smooth, shiny or velvety
141. As the art of floral design has become more formalized through practice, teaching and writing; there has developed a group of traditional guidelines that are frequently cited by people involved in flower arranging. Which of the following, if any, is part of these traditional guidelines?
- A) Avoid crossing lines and lines that change abruptly
 - B) Keep flowers from lining up in distracting patterns
 - C) Neither of the above
 - D) Both of the above
142. When certain elements are provided in excess to plants, uptake of other nutrients may be hindered. One example of a mineral antagonism is the _____ interaction; a 1:1 ratio is recommended for most floriculture crops.
- A) Nitrogen-Potassium
 - B) Potassium-Calcium
 - C) Hydrogen-Nitrogen
 - D) Hydrogen-Carbon Monoxide

143. All but one of the following is easily suitable for pressing. Which item is NOT suitable for pressing.
- A) Daffodil
 - B) Dusty miller
 - C) Pansies
 - D) African violets
144. When planning for a wedding, there are basic considerations that the florist must address in order to properly assist the bride for this important occasion. Which, if any of the items below are NOT one of these factors?
- A) Location of wedding
 - B) Formality of wedding
 - C) Time of year
 - D) Method of payment
145. Optimum temperature for poinsettia growth is _____ degrees F.
- A) 60 to 80
 - B) 45 to 55
 - C) 70 to 90
 - D) 80 to 85
146. There are three basic "C" aims for selling in a flower shop. Which of the following is NOT included in the three "C"s?
- A) Create an interest
 - B) Contain the cost
 - C) Convince the customer
 - D) Close the sale
147. When utilizing the ratio markup method a 5 to 1 item with the total wholesale value of the material costing \$12.00 would retail for _____.
- A) \$30.00
 - B) \$60.00
 - C) \$45.00
 - D) None of the above
148. The sales showroom is separate from the work area. It should be neat and appealing with adequate floor space for customers to move about. Which of the following features is NOT typical of a sales area?
- A) Wrapping / sales counter with cash register
 - B) Design table for making arrangements
 - C) Display refrigerator holding completed arrangements and cut flowers for sale
 - D) Consultation area with table and chairs
149. Generally, roses are graded according to _____ of stem.
- A) Strength
 - B) Turgidity
 - C) Length
 - D) Width
150. The bract that encloses a flower cluster is a .
- A. Quill
 - B. Spathe
 - C. Spike
 - D. Petal
151. Your orchids are facing a pest problem. The buds, flowers and tender new growth are pitted or stunted. Tiny insects are often visible. A sticky fluid secreted by the insects provides a medium for growth of sooty mold and attracts ants. The most likely problem is .
- A) Spider mites
 - B) Aphids
 - C) Mealybugs
 - D) Snails and slugs
152. A group of orchids have a problem caused by improper culture. The foliage is dark green and healthy, but the plant won't flower. The probable cause is _____.
- A) Over fertilization
 - B) Under watering
 - C) Insufficient humidity
 - D) Too little light

153. Fungus gnat damage to potted plants is caused by the _____.
- A) Adult stage
 - B) Larval stage
 - C) Pupal stage
 - D) All of the above
154. A type of propagation in which the propagule remains attached to the parent plant is termed _____.
- A) Layering
 - B) Stem cutting
 - C) Root cutting
 - D) Division
155. Short, crooked rose peduncles often result from _____.
- A) Excessive vigor
 - B) Botrytis blight
 - C) Calcium deficiency
 - D) Excessive soluble salts
156. The greatest control over the cooling phase of Easter lily production is provided by _____.
- A) Controlled temperature forcing
 - B) Commercial care cooling
 - C) Natural cooling
 - D) Fan and pad cooling
157. Secondary macro-nutrients are:
- A) Calcium, magnesium, and sulfur
 - B) Zinc, molybdenum, and copper
 - C) Nitrogen, phosphorus, and potash
 - D) Calcium, zinc, and potash
158. Floral arrangements designed with visual paths along which the eye is led from one point of interest to another are called
- A) Mass arrangements
 - B) Abstract arrangements
 - C) Naturalistic arrangements
 - D) Line arrangements
159. The flower part that contains the pollen is the:
- A) Ovary
 - B) Filament
 - C) Anther
 - D) Corolla
160. Nosegay originated during which period in the history of floral design:
- A) Victorian
 - B) Renaissance
 - C) Baroque
 - D) English-Georgian
161. The number one foliage production state in acres and wholesale value is _____.
- A) Texas
 - B) Hawaii
 - C) California
 - D) Florida
162. An arrangement should be _____ times the height of a tall container or the length of an elongated container.
- A) 5 to 6
 - B) $\frac{1}{2}$
 - C) 3 to 4
 - D) 1.5 to 2
163. A mum cultivar with a single flower more than 4 inches in diameter, having all lateral buds removed is called a _____.
- A) Spray mum
 - B) Disbud mum
 - C) Standard mum
 - D) Miniature mum

164. The light intensity at which respiration and photosynthesis are balanced is _____.
- A) Photo synthetically active radiation
 - B) Approximately 1000 foot candles
 - C) Light compensation point
 - D) All of the above
165. The florist's chrysanthemum is a _____.
- A) Composite inflorescence
 - B) Complex hybrid
 - C) Short day plant
 - D. All of the above
166. Plant texture is determined by _____.
- A) the way the leaf feels to the touch
 - B) foliage density
 - C) plant shape
 - D) B and C
167. A brown foam which is easily penetrated by delicate floral stems and aids in the arrangement of silk and dry flowers is _____.
- A) Silica gel
 - B) Holdfast
 - C) Dry foam
 - D) Styrofoam
168. For optimum vase life, most cut flowers should be stored at temperatures close to:
- A) 45 °F
 - B) 30 °F
 - C) 50 °F
 - D) 40 °F
169. Appropriate refrigeration of cut floral materials involves both temperature and humidity control to:
- A) Slow down respiration
 - B) Increase water lost by transpiration
 - C) Increase microbial growth and development
 - D) None of the above
170. The _____ method of wiring is commonly used to wire flowers having large, thickened calyxes such as carnations and roses.
- A) Looping
 - B) Insertion
 - C) Hook
 - D) Piercing
171. The term that refers to all the petals of a flower collectively is:
- A) Sepals
 - B) Stamens
 - C) Styles
 - D) Corolla
172. Irregularly shaped holes with smooth edges appear in Celosia leaves. Some leaves are even missing. The plants should be treated for:
- A) Aphids
 - B) Leaf cutter bees
 - C) Slugs and snails
 - D) Crickets
173. Secondary colors consist of:
- A) Orange, green, and violet
 - B) Yellow, red, and blue
 - C) Orange, blue-violet, and blue-green
 - D) None of the above
174. "Plant lice" refers to:
- A) Aphids
 - B) Mites
 - C) Thrips
 - D) Scale

175. A major problem in standard carnation production resulting in asymmetrical flowers is:
- A) Improper fertilization
 - B) High-density spacing
 - C) Calyx splitting
 - D) Lack of pinching
176. The primary macro-nutrients are:
- A) Zinc, boron, and magnesium
 - B) Acidic and alkaline
 - C) Chlorine, iron, and manganese
 - D) Nitrogen, phosphorus, and potassium
177. The natural process by which plants grow in the direction of the strongest light source is called:
- A) Photoperiodism
 - B) Photomorphogenesis
 - C) Geotropism
 - D) Phototropism
178. A palmately compound leaf has:
- A) A rachis
 - B) A midrib
 - C) Parallel venation
 - D) Leaflet
179. If a florist was limited to two tools, the least useful ones to have would be:
- A) Oasis and cardettes
 - B) Pruning shears and wire cutters
 - C) Sharp knife and floral shears
 - D) Ribbon and anchor tape
180. A hue with white added is:
- A) Tint
 - B) Tone
 - C) Chroma
 - D) Accent
181. One of the earliest cultures to use flowers were the Egyptians. They valued _____ and _____.
- A) Simplicity and repetition
 - B) Simplicity with variation
 - C) Ornate with gothic tone
 - D) Majestic and lavish
182. Light energy, carbon dioxide, and water enter into the process of photosynthesis, through which:
- A) Respiration results
 - B) Carbohydrates are formed
 - C) Chlorophyll is formed
 - D) Amino acids are formed
183. Choosing the right heating system for a particular greenhouse depends on all but one of the following variables. Identify the one that is not applicable.
- A) Climate
 - B) Type of containers
 - C) Size of greenhouse
 - D) Cost and availability of heating fuel
184. _____ is generally added to water when processing flowers in a retail floral shop.
- A) Herbicide
 - B) Insecticide
 - C) Biocide
 - D) Algaecide
185. Hanging plants used in interior landscapes function to:
- A) Hide tall, ugly equipment
 - B) Smooth squared edges found in the architecture
 - C) Keep people from sitting on the edges of plants
 - D) Float in water features

186. The main reason many tropical foliage plants decline indoors is related to:
A) Humidity
B) Air circulation
C) Temperature
D) Light
187. To properly water indoor plants, consider:
A) The type of plant
B) The size of the plant
C) Where the plant is growing
D) All of the above
188. Gloxinia and African violet are members of the plant family:
A) Fabaceae
B) Gesneriaceae
C) Asteraceae
D) Caryophyllacea
189. Growth-promoting substances are often applied to the bases of cuttings when propagating plants in order to:
A) Harden-off the cuttings
B) Conserve moisture in the cuttings
C. Induce node development on the stems of the cuttings
D. Speed the development of roots on the cutting
190. A ten-week group variety of chrysanthemum means:
A) They should be ten weeks old when potted
B) They will bloom ten weeks after sticking the cuttings
C) They bloom ten weeks after the start of short days
D) Cuttings of this variety being planted should root in ten weeks
191. The new growth of a Dieffenbachia is weak and spindly, with large gaps between the leaves. The problem is probably:
A) Salt damage
B) Nitrogen deficiency
C) Botrytis
D) Lack of light
192. A container often used at Thanksgiving for floral arrangements and symbolic of a plentiful harvest is the:
A) Bud vase
B) Cornucopia
C) Hanukkah
D) Basket
193. All of the protoplasm in a cell, except the nucleus, is called:
A) Mitochondria
B) Ribosome
C) Stomoplasm
D) Cytoplasm
194. When black is added to a hue, the resulting color is called a:
A) Shade
B) Hue
C) Tone
D) Tint
195. The first major civilization to have professional floral designers was the:
A) Greeks
B) Egyptians
C). Romans
D) Chinese
196. The least expensive method of propagating plants is by:
A) Layering
B) Cuttings
C) Seeds
D) Grafting

197. There are three main ingredients in floral preservatives. Which of the following is not one of these ingredients?
A) Acidifying agent
B) Bactericide
C) Caking agent
D) Algicide
198. The most important environmental factor regulating flower initiation in bulbous species is:
A) Light
B) Temperature
C) Moisture
D) Ventilation
199. A _____ gauge wire is most commonly used for funeral work.
A) 18
B) 28
C) 24
D) 3
200. To increase the keeping quality of plant materials with hollow stems, the stems should be:
A) Burned
B) Dipped in boiling water
C) Filled with water
D) Wrapped with florist tape
201. Of the following, which gauge of wire has the thinnest diameter?
A) 22
B) 24
C) 36
D) 18
202. The average humidity recommended for interior plants is:
A) 70 to 100%
B) 40 to 70%
C) 20 to 30%
D) 10 to 20%
203. When a florist uses both glossy and varied textures, the role of the varied texture is to _____.
A) be highly visible and attract the viewer's attention
B) serve as a filler to accent the glossy texture
C) hold the viewer's attention after it is attracted to the glossy texture
D) not be noticeable in the design
204. Commercial flower crops are sometimes watered to cause leaching. This means:
A) Watering to spread fertilizer nutrients more evenly throughout the plant root system
B) Watering to remove excess soluble salts from the growing medium
C) Watering only to wet the top 1/3 of the growing medium
D) Watering by subsurface methods
205. _____ is used to secure the floral foam to the design container.
A) Electrical tape
B) Floral tape
C) Anchor tape
D) Masking tape
206. Light intensity is expressed in units of:
A) Foot-candles
B) Micrometers
C) Candlelight
D) All of the above
207. When making hand-tied bouquets, the stems should be positioned:
A) Parallel to each other
B) Perpendicular to each other
C) Any way that looks nice and holds together
D) In a spiraling manner

208. Intervenal refers to:
A) Brown, dead leaves
B) Throughout the veins
C) Between the veins
D) Yellowing leaves
209. Transition in a floral arrangement is the process of rhythmic change through progression, sequence, or ____ .
A) Modification
B) Gradation
C) Restructuring
D) Separation
210. The following is not a characteristic of an insect:
A) Three segmented body
B) Six legs
C) Two pairs of wings
D) Two tentacles
211. When cells are turgid, they are:
A) Deflated
B) Ruptured
C) Inflated
D) Joined with other cell
212. What nutrient is deficient if the deficiency symptoms are found on older/lower leaves and the plant is dark green or reddish-purple with short, slender stalks?
A) Nitrogen
B) Phosphorus
C) Potassium
D) Iron
213. _____ is the ribbon size typically used for corsage work.
A) #3
B) #9
C) #16
D) #40
214. Size of a casket spray is determined by:
A) Type of casket
B) Budget
C) Religious affiliation
D) Type of flowers in season
215. The most common stem support mechanic used by florists in fresh cut flower arrangements is:
A) Chicken wire
B) Floral foam
C) Dry foam
D) Needlepoint holder
216. The optimum growing temperature for most bedding plants is:
A) 55 degree Fahrenheit – 62 degree Fahrenheit
B) 65 degree Fahrenheit – 72 degree Fahrenheit
C) 75 degree Fahrenheit – 82 degree Fahrenheit
D) 45 degree Fahrenheit – 52 degree Fahrenheit
217. Roses are propagated by _____.
A) Tip Cuttings
B) Budding
C) Grafting
D) All of the above
218. DIF control is a method of controlling the growth of plants. DIF refers to:
A) Difference between day and night temperatures
B) Difference between daylight hours in the summer and daylight hours in the winter
C) Difference between species in the number of growing days
D) Difference between watering methods

219. A design that uses a combination of both natural and manmade materials in an unnatural manner to create a new image is called a:
A) Parallel design
B) Line flower
C) Pave' design
D) Interpretive design
220. A design that is a naturalistic design in which flowers and plant material is placed as they would grow in nature is called:
A) Cascade design
B) Vegetative design
C) Pave' design
D) Interpretive design
221. The design that consists of several layers of materials, varying in size and texture to create a flowering effect is called a:
A) Cascade design
B) Pave' design
C) Round design
D) Naturalistic design
222. The asymmetrical balanced design of few materials, usually placed in groups that emphasize forms and lines is called a:
A) Parallel design
B) Pave' design
C) Vegetative design
D) Formal linear design
223. This design is the easiest for a beginner because it does not require a focal point.
A) Cascade
B) Symmetrical
C) Round
D) Asymmetrical
224. What is the purpose of plant propagation?
A) To recognize old breeds of plants and focus on them
B) To produce new and better breeds of plants at a fast rate
C) To produce fewer breeds of plants
D) To slow down the reproduction process of new breeds of plants
225. What is percent germination and how can it be calculated?
A) Percentage of seeds that will sprout and grow
B) Number of seeds planted and can be determined by counting the seeds left over and dividing them into the number of seeds started with
C) Determined by placing a sample of seeds in a favorable growing environment and noting how many germinate
D) Both a and c
226. The pierce wiring technique works best on flowers that have a _____ .
A) Limp stem
B) Thin Calyx
C) Fuller Bloom
D) Thick Calyx
227. Successful advertising to a target audience is based on three profit "P"'s. Which one of the following is not part of the three profit "P"'s?
A) Planned
B) Persuasive
C) Pleasant
D) Persistent
228. Which of the following is NOT important when considering water quality for fresh flowers?
A) Temperature
B) pH
C) Hardness/softness
D) Salinity
229. Which of the following is NOT important for a floral designer to ask when designing arrangements for a specific room?
A) What size is the room?
B) What is the ceiling height?
C) What percent of the budget does the room cost
D) How many table will there be?

230. Which of the following designs is not suitable for a wedding?
A) Full couch spray arrangement
B) Cascade bouquet arrangement
C) Two-tiered guest table arrangement
D) Kneeling bench arrangement
231. An organism capable of causing a disease is called:
A) An enzyme
B) A systemic
C) A Pathogen
D) A cambium
232. To insure blue color in hydrangeas, you would:
A) Fertilize with aluminum sulfate
B) Raise the pH level in the soil
C) Expose the crop to short days and cool nights
D) Fertilize with magnesium sulfate
233. Air layered plant are removed from the parent plant:
A) When the roots are four to six inches long
B) When the plants are sold
C) As soon as the roots are visible
D) Immediately after layering
234. The measure of how poisonous a chemic is after a single exposure is _____ toxicity.
A) Chronic
B) Bad
C) Accurate
D) Acute
235. What is the fertilizer element that is used by the plant to make chlorophyll molecules?
A) Nitrogen
B) Potassium
C) Phosphorus
D) Calcium
236. IPM is an acronym for:
A) Integrated pest material
B) Integrated pest management
C) Intensive pest management
D) Intensive pest material
237. The fertilizer element _____ increases the plant's resistance to disease.
A) Potassium
B) Zinc
C) Nitrogen
D) Phosphorus
238. Which of the following fertilizer elements is NOT a micro-nutrient?
A) Boron
B) Iron
C) Manganese
D) Sulfur
239. Kitty litter, cornmeal, sand and borax are all types of:
A) Desiccants
B) Stabilizers
C) Accessories
D) Preservatives
240. Which of the following fertilizer element is NOT a macro-nutrient?
A) Hydrogen
B) Oxygen
C) Zinc
D) Calcium

241. The most commonly used growth regulator to shorten stem length on lilies is:
A) Methyl bromide
B) Captan
C) A-Rest
D) Orthene
242. An economic reason for pruning a plant is to:
A) Achieve special effects
B) Keep its shape in line with the landscape
C) Rejuvenate its growth
D) Improve visibility around intersections
243. According to sales figures, what is the most popular cut flower sold in the United States?
A) Poinsettia
B) Chrysanthemum
C) Rose
D) Carnation
244. A number 9 florist ribbon is:
A) 7/8" wide
B) 1 3/8 " wide
C) 2" wide
D) 2 3/4 " wide
245. Chemicals that enter the plant sap and move throughout the entire plant are:
A) Systemic poisons
B) Stomach poisons
C) Fumigants
D) Contact Poisons
246. Which of the following is not generally considered part of the Floriculture Industry?
A) Retail flower shop
B) Potted foliage plants
C) Vegetable transplants
D) Commercial cut flower greenhouses
247. Texture in an arrangement refers to:
A) The shape or silhouette of the design
B) The surface appearance of the arrangement
C) The visual path the eye follows when viewing the arrangement
D) the blending of components of an arrangement
248. Wooden picks are used to:
A) Secure frogs to the container
B) Secure the floral foam to the container
C) Used to secure the chicken wire to the foam
D) Used to extend and strengthen the stems of flowers for insertion into the floral foam
249. When a florist greens an arrangement, they are:
A) Adding foliage to it so that the mechanics are hidden
B) Adding green dye so that the stems are hidden
C) Removing foliage from the lower stems of the greenery
D) Adding in green flowers in honor of St. Patrick's Day
250. A wire service:
A) Is a company that manufactures wires for floral design
B) is a company that sends sentiments to be attached to wires
C) Is a service that sends telegrams
D) Is a clearinghouse of floral orders