

2021 MN FFA Floriculture CDE Exam

Select the best answer for each question and mark your answer on the exam section of the scantron.

1. _____ flowers are closed-form, single flowers that have a dense, rounded shape.
 - a. Live
 - b. Line
 - c. Mass
 - d. Form

2. Floral designers determine the height, width, and depth of designs based on an arrangement's final destination and application. This requires a good understanding of _____.
 - a. Texture
 - b. Proportion
 - c. Line
 - d. Harmony

3. Which color are considered achromatic?
 - a. Blue
 - b. Yellow
 - c. Red
 - d. White

4. A leaf with a single _____ (the broad flattened part of a leaf) is a simple leaf.
 - a. Leaflets
 - b. Stipules
 - c. Blade
 - d. Petiole

5. A _____ is a growth curvature caused by some external stimulus such as light or gravity.
 - a. Tropism
 - b. Photosynthesis
 - c. Transpiration
 - d. Hormones

6. _____ is the green pigment found in plant cells, prominent in leaves and stems.
 - a. Cytokinins
 - b. Carotenoids
 - c. Chlorophyll
 - d. Photosynthesis

7. Flowers are kept in the refrigerator to help keep fresh before selling. There are three main functions of refrigerated storage for fresh flowers until they are selected. Which of these is one of those main reasons:
 - a. To reduce the rate of respiration
 - b. To increase water loss
 - c. To activate growth hormones
 - d. None of the above

8. Citric acid treatment speeds the intake of water, helping to prevent _____ in roses and gerberas.
 - a. Hardening
 - b. Dry Packed
 - c. Bent Neck
 - d. Pulsing

9. The choice of a container, vase, or _____ may depend on physical factors such as the size of the bouquet, the size of the flowers, the mood and color for a design, the shape of the design and the placement for a bouquet.
- Texture
 - Foundation
 - Form
 - Flow
10. A valuable and widely used method for achieving unity is through _____, in which some element of the floral arrangement repeat throughout the design to relate the _____.
- Repetition – parts to one another and to the whole.
 - Repetition – same parts to the surroundings of the design or setting.
 - Repetition – parts to the theme of the venue.
 - Solitude – parts to none of the parts in the design as a whole.
11. A hormone produced and emitted in varying quantities by fruits and vegetables and by decaying plant materials.
- ethylene
 - locavore
 - methane
 - geocarp
12. The portion of the horticulture industry that cultivates and arranges outdoor plant materials to create spaces that are inviting, beautiful and useful to people and the ecosystem.
- silviculture
 - locavore
 - interiorscaping
 - nursery and landscape
13. The cooling, cleaning, sorting, storing, packing and shipping of produce, flowers, and other plant materials.
- postharvest
 - pomology
 - locavore
 - bramble
14. The science, cultivation, processing, storage, and marketing of herbs and vegetables.
- botanist
 - olericulture
 - horticulturist
 - viticulturist
15. The release of water through plant leaves, which then evaporates and helps cool the air.
- transpiration
 - evapotranspiration
 - photosynthesis
 - propagation
16. The thin stalk in the stamen of a flower that supports the anthers.
- stomata
 - pith
 - filament
 - nodes

17. The basic unit of a plant that contains many different organelles that drive plant processes.
 - a. mitochondria
 - b. heterotroph
 - c. cell
 - d. indehiscent

18. What are the parts of a cell that drive the process of respiration and energy transfer?
 - a. Golgi bodies
 - b. mitochondria
 - c. endoplasmic reticulum (ER)
 - d. ribonucleic acid (RNA)

19. Pores in epidermal cells that open to allow for gas exchange and control water loss.
 - a. samara
 - b. stomata
 - c. pome
 - d. guard cells

20. Producing plants from seed is a type of _____ propagation.
 - a. asexual
 - b. bisexual
 - c. sexual
 - d. unsexual

21. Seeds are composed of the
 - a. seed coat, endosperm, and embryonic plant
 - b. seed coat, root, and stem
 - c. eye starch, and seed coat
 - d. root system, starch coat, and seed coat

22. When two separate parent plants are involved in the pollination process, it is known as
 - a. self-pollination
 - b. cross-pollination
 - c. bisexual pollination
 - d. asexual pollination

23. The best answer for soil temperature on average for germinating seeds is?
 - a. 50 to 60 degrees F
 - b. 65 to 70 degrees F
 - c. 75 to 80 degrees F
 - d. 80 to 90 degrees F

24. Which two of the following materials are mixed in the seeding medium to give good drainage and aeration?
 - a. peat moss and vermiculite
 - b. sand and sphagnum moss
 - c. sand and perlite
 - d. perlite and peat moss

25. The date to start seeds is very important because
 - a. there must be greenhouse space made available for them
 - b. seed houses have seeds available only at certain times
 - c. the seeding medium must be ready
 - d. the plants must often be ready for sale or planting at a certain time

26. Nitrogen causes plants to
 - a. produce more flowers and seeds
 - b. resist disease and develop strong roots
 - c. harden off more rapidly
 - d. grown rapidly and develop a dark green color

27. A soil having equal parts of sand, silt and clay is called
 - a. an aggregate
 - b. a mixture
 - c. a loam
 - d. sandy

28. Potassium causes plants to
 - a. produce more flowers and seeds
 - b. resist disease and develop strong roots
 - c. grow much larger than they would otherwise
 - d. grow rapidly and develop a dark green color

29. Lime furnishes the plant food element
 - a. nitrogen
 - b. phosphorus
 - c. potash
 - d. calcium

30. New businesses should realize that is 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

31. 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

32. The acceleration of flowering by manipulation of environmental conditions is known as:
 - a. pulsing
 - b. forcing
 - c. leaching
 - d. after-ripening

33. A method of applying pesticides to plants that can be effectively used in greenhouses, but not outdoors is:
- spraying
 - fumigation
 - dusting
 - soil drenching
34. Leaf petiole cuttings can be used to propagate:
- marigolds
 - chrysanthemums
 - boston ferns
 - African violets
35. Which of the following plant pairs require long night (short day) conditions for flowering?
- Azalea and Rose
 - Carnation and Poinsettia
 - Poinsettia and Chrysanthemum
 - Chrysanthemum and Azalea
36. After removing bedding plants from the greenhouse they should be _____ before planting outside.
- pruned
 - fertilized
 - hardened off
 - pinched
37. Which of the following is not a part of the pistil of a flower?
- stigma
 - style
 - anther
 - ovary
38. The advantage of single-eye (leaf-bud) cuttings is that:
- they produce flowers more quickly
 - they grow faster than stem cuttings
 - they are less likely to become infected with diseases
 - from the same amount of propagation material, they give more plants
39. A greenhouse producer of young seedlings for shipping for finishing by others is referred to as a _____ producer.
- finisher
 - seed
 - plug
 - knot
40. Pot mums in 6-inch pots should average flowering shoots per pot.
- 5 to 10
 - 20 to 30
 - 60 to 80
 - 80 to 100

41. There are three primary ways that heat is lost in a greenhouse. Which of the following is not correct?
- air leakage
 - solarization
 - conduction
 - radiation
42. 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?
- designer pot
 - standard pot
 - azalea pot
 - bulb pot or pan
43. A process used by growers to produce well branched, compact plants with many flowers is called?
- stunting
 - compacting
 - pinching
 - potting
44. Cut carnations are classified into two groups:
- floral and greenhouses
 - standards and miniatures
 - premium and discount
 - none of the above
45. Your foliage plants are facing a pest problem. The buds, flowers, and tender new growth are pitted or stunted. Tiny insects are often invisible. A sticky fluid secreted by the insects provides a medium for growth of sooty mold and attracts ants. The most likely candidates are:
- spider mites
 - aphids
 - mealybugs
 - snails and slugs
46. These insects are identified by the cottony material found on stems and along leaf veins.
- aphids
 - mealybugs
 - spider mites
 - whiteflies
47. Where is a floral arrangement should light-colored flowers be placed?
- near the top or outside edges of the flower arrangement
 - near the center of the flower arrangement
 - towards the bottom of the flower arrangement
 - light-colored flowers should not be used as a rule.
48. A _____ color scheme is made up of 4 total colors, the two colors on each side of a complimentary color on the color wheel.
- Complementary
 - Split-complementary
 - Double split-complementary
 - Polychromatic or tetrad

49. Fungus disease are spread by small seed like structures called
- a. spores
 - b. roots
 - c. pollen
 - d. nematodes
50. _____ 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

2021 Minnesota FFA Floriculture CDE

Problem Solving Exam- Place answers in the Exam 2/Team section

Directions: Select the best answer for each question and mark your selection on the scantron provided. Mark answers in the **Exam 2** section located in the lower right hand side on the front of your scantron.

Problem Solving- Disorders and Treatments

1. This pest makes irregular holes in plant tissue with their rasping mouthparts. They can kill young seedlings by completely eating them.

- A. Aphids**
- B. Scale**
- C. Slugs**
- D. Fungus gnats**



2. This deficiency causes Interveinal chlorosis of young leaves. In late stages, the leaf blade may lose nearly all pigment taking on a white appearance and finally turning necrotic.

- A. Damping off**
- B. Iron deficiency**
- C. Nitrogen deficiency**
- D. Phosphorus deficiency**



3. Mildew: This disease causes mold that is white/gray in color. The flat mold grows along the top surface of the leaf. The cultural control that would help to prevent or control this disease would be:

- A. Reduce relative humidity**
- B. Correct or adjust watering**
- C. Increase air temperature**
- D. Reduce soil temperature**



Flower design, plant selection

4. Your FFA chapter is planning to sell one dozen red rose vases for Mother's Day to raise funds to attend the State Convention. Students want to make \$20 profit from each bouquet they sell. Using the following wholesale prices for the appropriate recipe, determine a retail price point that would allow for the fundraising project.

Your design needs:

Vases \$ 30 for a case of 4 vases	1 vase
Roses \$ 50 per bunch of 25 stems	12 Roses
Leather Leaf Fern \$5 per bunch	½ bunch fern
Baby's Breath Filler Flower \$ 10 per bunch	½ bunch filler

- A. \$51.50
- B. \$55.00
- C. \$59.00
- D. \$66.50

5. As a Burpee Seed salesperson a customer asks for recommendations on what tomato varieties to grow for the spring market. The customer wants seven varieties that meet the following criteria:

- 4 Indeterminate varieties
- 3 Determinate varieties
- 5 Slicer type varieties
- All varieties should have at least verticillium and some fusarium wilt tolerance

Use the Burpee Information Sheet Provided

Which group of tomato varieties would include all of the above recommendations?

Group A

Atlas	Burpee Big Boy	Early Girl	Delicious
Big Beef	Oh Happy Day F ₁	Champion II	

Group B

Better Boy	Brandywine Red	Big Beef	Champion II
Celebrity	Early Girl	Super Steak Hybrid	

Group C

Better Boy	Celebrity	Burpee's Big Boy	Bush Early Girl
Beefsteak	Homeslice F ₁	BushSteak F ₁	

Group D

Atlas	Celebrity	Homeslice F ₁	Big Beef
Better Boy	Champion II	Early Girl	

Calculations, Safety, Labels

6. You are preparing the wholesale floral order for a large event. The company needs 50 centerpieces for the dinner tables. Each centerpiece will include 6 sunflowers. Sunflowers come in a bunch of 5 stems. How many bunches will you need to order from the wholesaler for the event?
- A. 50
 - B. 60
 - C. 72
 - D. 84
7. A local florist is offering a Mother's Day special on a vase flower arrangement. They get a special discount if the order is placed one week before Mother's Day. The florist receives 150 orders but only 125 were placed one week before Mother's Day. The normal retail price for the vase arrangement is \$40 and the early discount is 25%. How much can the flower shop expect in gross sales from the Mother's Day vase flower sale?
- A. \$4,350.00
 - B. \$4,500.00
 - C. \$4,750.00
 - D. \$6,000.00
8. As a buyer for Gold Brothers Greenhouses you need to order Sun-gro growing mix for the spring crops. You have the following list of how many pots/baskets/inserts are planned for the growing season:
- 850 – 4 inch geranium pots
 - 480 – 6 inch azalea pots
 - 320 – 8 inch azalea pots
 - 310 – 10 inch baskets with saucers
 - 270 – 1203 inserts

Using the Sun-gro information sheet (on the back of the Burpee sheet), how many bags of potting soil do you need to order? You must purchase whole bags so round you answer to a full bag.

- A. 65 bags
- B. 70 bags
- C. 75 bags
- D. 80 bags

(OVER for questions 9 and 10)

9. Valentine's Day should be the most profitable day of the year for a florist. On average most profit margins average between 200 and 300 percent. Using the below wholesale cost of materials how much would you charge for a bud vase to achieve a 250% profit above the cost of the materials?

		Total Cost
1 – Bud Vase	\$1.00/each	_____
3 – Leatherleaf	\$.10/each	_____
3 – Roses	\$1.50/each	_____
1 – Baby's Breath Stem	\$.75/each	_____
1 – Bow	\$.50/each	_____
1 – card	\$.07/each	_____

- A. \$17.12**
- B. \$19.42**
- C. \$24.92**
- D. \$28.62**

10. A local Garden Center is running a 15% Off Sale on all bedding flowers. This is the Garden Center normal price sales information:

Marigolds / \$1.75 per six pack
 Petunias / \$2.25 per six pack
 Impatiens / \$2.50 per four pack
 Gerber Daisies / \$4.50 each

A customer needs 42 individual Petunias, 18 individual Marigolds, 32 individual Impatiens, and 10 individual Gerber Daisies. If the sales tax is 6.3%, what is the total cost to the customer. Round up to the nearest cent.

- A. \$73.10**
- B. \$77.71**
- C. \$80.78**
- D. \$89.31**

2021 Minnesota State Virtual Practicum- use Solution & Assessment Section- 10 points Each.

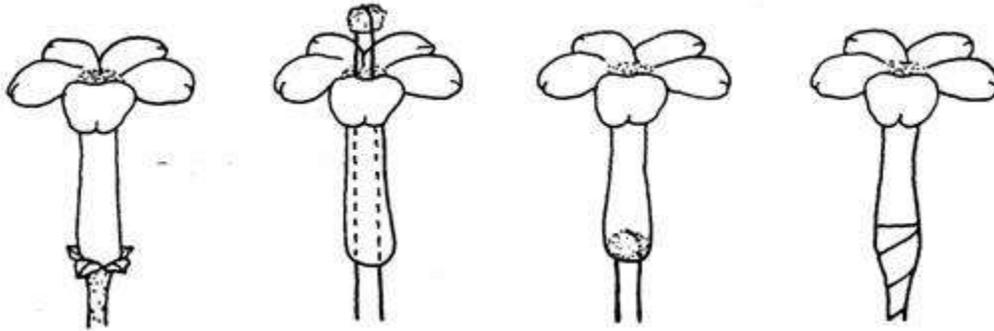


Use the above picture to answer the following questions. Use the following letters to answer each question.

1. Of the four corsages which of the 4 would be judged to be the bottom pair placing based on the 6 principles of floral design and the 4 design elements. A.#1, #2 B. #1, #3 C. #1, #4 D. #2, #4
2. Of the four corsages which would be the best for Valentine’s Day based on the 6 principles of floral design and the 4 design elements?
A. #1 B. #2 C. #3 D. #4
3. Which of 4 examples is actually worn on the correct wrist considering they are all right handed?
A. #1 B. #2 C. #3 D. #4
4. Which of the corsages uses leatherleaf a green.
A. #1 B. #2 C. #3 D. #4

Choose A - for True, B for False for the next question concerning the picture above.

5. The main flowers used for the wrist corsages pictured are roses.



6. These flowers are stephanotis showing the proper method of wiring. What is the name of this type of wiring?

- A. Insertion B. Hairpin C. Clutch D. Cross Pierce



7. The major concern with the above corsages is:

- A. Color Scheme B. Proportion C. Unity D. Focal Point



8. The form of the wrist corsage above is:

- A. Circular
- B. Symmetrical Triangle
- C. Asymmetrical Triangle
- D. Diagonal

9. If this corsage was priced at \$38.75 and labor was 35% of the total cost. The labor price for this would be?

- A. \$11.27
- B. \$12.96
- C. \$13.07
- D. \$13.56



10. Which color scheme is represented by the corsage above?

- A. Triadic
- B. Monochromatic
- C. Complimentary
- D. Analogous