

2017 University of Minnesota Winter Invite Floriculture Exam

Mark your answer directly onto your scantron.

- 1) Water clings to the walls of the xylem tubes in stems. This force is called:
 - A) Adhesion
 - B) Choloplastism
 - C) Cohesion
 - D) Respiration
- 2) Which part of the plant flower contains pollen?
 - A) Anther
 - B) Filament
 - C) Ovary
 - D) Ovule
- 3) The major function of root hairs on roots is to:
 - A) Grow into larger roots
 - B) Absorb water and minerals from the soil
 - C) Protect the root as it pushes through the soil
 - D) Keep the root warm
- 4) Monocot stems have the xylem and phloem
 - A) On each side of a cambium layer
 - B) In small bundles scattered through the stem
 - C) Side by side
 - D) Near the outside of the stem
- 5) A soil having equal parts of sand, silt and clay is called:
 - A) An aggregate
 - B) A mixture
 - C) A loam
 - D) Sandy loam
- 6) Gibberellins stimulate growth by
 - A) Stimulating cell enlargement
 - B) Cell elongation
 - C) Cell division
 - D) Hastening ripening
- 7) Producing plants from seed is a type of _____ propagation.
 - A) Asexual
 - B) Bisexual
 - C) Sexual
 - D) Unisexual
- 8) There are three primary ways that heat is lost in a greenhouse. Which of the following is not correct?
 - A) Air leakage
 - B) Solarization
 - C) Conduction
 - D) Radiation
- 9) A process used by growers to produce well branched, compact plants with many flowers is called?
 - A) Stunting
 - B) Compacting
 - C) Pinching
 - D) Potting

- 10) 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
- 11) African violets are typically propagated by:
- A) Leaf cuttings
 - B) Stem cuttings
 - C) Air layering
 - D) Root division
- 12) Where in a floral arrangement should light-colored flowers be placed?
- A) near the top of the flower arrangement.
 - B) near the center of the flower arrangement.
 - C) towards the bottom of the flower arrangement.
 - D) light-colored flowers should not be used as a rule.
- 13) . Which class of pesticides does the Environmental Protection Agency (EPA) consider the MOST dangerous?
- A) Dusts
 - B) General use
 - C) Restricted use
 - D) Sprays
- 14) When flowers look too big for their container, the design principle that was NOT followed is:
- A) Balance.
 - B) Focal point.
 - C) Repetition.
 - D) Rhythm.
- 15) Which flowers are used to add mass?
- A) Baby's breath
 - B) Carnations
 - C) Gladiolus
 - D) Orchids
- 16) Which greenhouse environmental factor is controlled with the humidistat?
- A) Carbon dioxide
 - B) Light
 - C) Moisture
 - D) Temperature
- 17) The loss of water through plant leaves is the process of:
- A) Photosynthesis.
 - B) Respiration.
 - C) Translocation.
 - D) Transpiration.
- 18) The procedures used to break dormancy and to establish some growth before bulbs are brought into a warm room for flowering are called:
- A) Bolting.
 - B) Cooling.
 - C) Forcing.
 - D) Heating.

- 19) Most bedding plants are:
- A) Annuals.
 - B) Biennials.
 - C) Centennials.
 - D) Perennials.
- 20) The four main parts of a completed flower are:
- A) Anthers, filaments, receptacle, stamens.
 - B) Receptacle, ovary, stamens, style.
 - C) Stamens, sepals, pistil, petals.
 - D) Stigma, ovule, style, ovary.
- 21) The term "foot candle" is a unit of measure for
- A) photoperiod.
 - B) light intensity.
 - C) light duration.
 - D) light quality.
- 22) A systemic pesticide controls pests by
- A) systemically killing younger to older pests.
 - B) dissolving into and being moved by plant sap.
 - C) the use of progressively stronger applications of the material.
 - D) preventing insects from molting.
- 23) Percolation is _____.
- A) preparing coffee for your teacher
 - B) movement of nutrients in a plant
 - C) downward movement of water in the soil
 - D) physical arrangement of soil particles
- 24) The process by which the energy of sunlight is converted into chemical energy is known as:
- A) phototropism
 - B) photosynthesis
 - C) photoperiodism
 - D) transpiration
- 25) How many pounds of nitrogen are in a 100 pound bag of 10-15-10?
- A) 10
 - B) 15
 - C) 5
 - D) all of the above
- 26) A shade cloth is pulled over a greenhouse to:
- A) improve bud count
 - B) increase temperature
 - C) elongate stems for taller plants
 - D) decrease sunlight allowed in
- 27) A hue plus gray which is duller than the pure hue, and produces a soft, soothing effect is a:
- A) split complementary
 - B) tone
 - C) shade
 - D) tint

- 28) The soil pH level primarily controls:
- A) soil temperature
 - B) activity of soil-born disease
 - C) moisture absorption by roots
 - D) availability of essential plant nutrients
- 29) Insects are generally most destructive when they are in the:
- A) egg stage
 - B) larval stage
 - C) pupa stage
 - D) none of the above
- 30) A greenhouse cooling system where large exhaust fans draw air through and moisten pad mounted on the opposite end of the structure is called
- A) evaporate cooling
 - B) air conditioning
 - C) humidity cooling
 - D) none of the above
- 31) When plant roots have completely filled its pot and become overly crowded the plant is said to be
- A) over-potted.
 - B) mature.
 - C) over-rooted.
 - D) pot bound.
- 32) The hairpin method of wiring flowers should be used on
- A) Flowers with a large calyx
 - B) Flowers with tubular florets
 - C) Flowers with composite florets
 - D) Only on roses
- 33) The best method for wiring a small chrysanthemum flower is
- A) Clutch wire method
 - B) Hairpin method
 - C) Hook method
 - D) Piercing method
- 34) Jiffy pellets are used :
- A) As a medium for starting plants
 - B) As a fertilizer for young plants
 - C) To ward of animals such as rabbits
 - D) As a defense against damping off
- 35) Which floral design principle is used to accentuate the flowers and colors in the design?
- A) Scale
 - B) Repetition
 - C) Rhythm
 - D) Harmony
- 36) Which floral design principle is used to create a design in proportion to the surrounding area?
- A) Scale
 - B) Repetition
 - C) Rhythm
 - D) Harmony

- 37) When using a carnation in a corsage, the stem
- A) Should be cut off at the calyx
 - B) Should be cut off $\frac{1}{2}$ inch below the calyx
 - C) Should be cut to the length of the desired finished corsage stem length
 - D) Should be cut only after the corsage is completed
- 38) Chrysanthemums may flower at any time of the year in greenhouses through the appropriate control of:
- A) moisture
 - B) nutrition
 - C) temperature
 - D) photoperiod
- 39) The primary colors are
- A) Red, yellow, and blue.
 - B) Orange, green, violet
 - C) Red, green, and blue
 - D) Blue, orange, and violet
- 40) What is added to acidic soil to raise the pH?
- A) organic matter
 - B) sand
 - C) lime
 - D) a high nitrogen fertilizer

2017 University of Minnesota Winter Invite Floriculture Exam Key

1. A
2. A
3. B
4. B
5. C
6. B
7. C
8. B
9. C
- 10.A
- 11.A
- 12.A
- 13.C
- 14.A
- 15.B
- 16.C
- 17.D
- 18.C
- 19.A
- 20.C
- 21.B
- 22.B
- 23.C
- 24.B
- 25.A
- 26.D
- 27.B
- 28.D
- 29.B
- 30.A
- 31.D
- 32.B
- 33.C
- 34.A
- 35.B
- 36.A
- 37.B
- 38.D
- 39.A
- 40.C

2017 Winter Invite Flower arrangement and propagation questions (5 points each)

Use the Exam 2/Team Section of the scantron

- 1) Large leaves are often removed from a geranium plant in late winter to:
 - A) permit more light to reach young growth
 - B) reduce space requirements
 - C) reduce disease problems
 - D) force the plant to set bud

- 2) Your *Dieffenbachia's* new growth is weak and spindly with large gaps between the leaves. The problem is:
 - A) salt damage
 - B) nitrogen deficiency
 - C) *Botrytis*
 - D) lack of light

- 3) Which statement is true concerning wire and ribbon sizes
 - A) Larger the number the larger the wire and narrower the ribbon
 - B) The larger the number the larger the wire and the wider the ribbon
 - C) The larger the number the smaller the wire and wider the ribbon
 - D) The larger the number the smaller the wire and narrower the ribbon.

- 4) Where the Focal Point of a floral design is located?
 - A) At the outside edge.
 - B) At the top.
 - C) High in the middle portion.
 - D) In the lower center.

- 5) Spanish moss does what for an oasis arrangement?
 - A) Keeps the flowers fresh and healthy
 - B) Makes the colors in the arrangement look more varied
 - C) Covers the visible oasis
 - D) Adds a peasant aroma

For each of the following flowers Indicate basic type of design flower they would be used as.

Answers may be used more than once

- | | |
|---------------------|------------------|
| 6). Chrysanthemums | A. Filler flower |
| 7) Liatris | B. Form flower |
| 8) Waxflowers | C. Line flower |
| 9) Bird of Paradise | D. Mass flower |
| 10) Baby's Breath | |

2017 Winter Invite Flower arrangement and propagation questions Key

- 1) A
- 2) D
- 3) D
- 4) D
- 5) C
- 6) D
- 7) C
- 8) A
- 9) B
- 10) A

2017 Winter Floriculture Problem Solving (10 pts. each)
Use Assessment & Solution Section of scantron

- 1) The chemical most often used commercially for root cuttings is
 - A) Gibberellic acid
 - B) Indoleacetic acid
 - C) Indolebutyric acid
 - D) Talc

- 2) Your orchids 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:
 - A) Spider mites
 - B) Aphids
 - C) Mealy bugs
 - D) Snails and slugs

- 3) These insects are identified by the cottony material found on stems and along leaf veins:
 - A) Aphids
 - B) Mealy bugs
 - C) Spider mites
 - D) Whiteflies

- 4) Mums are propagated by:
 - A) Division.
 - B) Hardwood cuttings.
 - C) Seeds.
 - D) Softwood cuttings.

- 5) To "force" a floriculture crop means to:
 - A) grow plants at times other than their natural outdoor growing season.
 - B) force the rooting of cuttings that will normally not root.
 - C) grow plants in pots at the time they naturally grow outdoors.
 - D) use chemicals to change or alter colors of blossoms.

- 6) You receive a shipment of poinsettias that cost you \$8.00 wholesale. You add a decorative sleeve and ribbon to the pots that cost \$2.25. Figure the retail price of the poinsettias if your markup is 200% of costs.
 - A) \$ 10.25
 - B) \$ 16.00
 - C) \$ 18.25
 - D) \$ 20.50

- 7) You buy a 1 cu. ft. bale of growing media for \$14.24. The bale will fill 14- 6 inch pots with growing media. How much is the cost of the growing media for each pot?
 - A) \$ 1.02
 - B) \$ 1.52
 - C) \$ 1.77
 - D) \$2.37

2017 Winter Floriculture Problem Solving Key

1. C
2. B
3. B
4. D
5. A
6. D
7. A