

PRACTICE EXAM 4

HORT 201

- 1) Microspores are derived from or develop from ____.
 - a) the egg
 - b) microspore mother cells
 - c) pollen grains
 - d) megaspore mother cells
- 2) All plants can be propagated by sexual propagation.
 - a) true
 - b) false
- 3) If a plant produces a seed by apomixis, is the plant that grows from the seed a hybrid?
 - a) yes
 - b) no
- 4) What type of fertilization do flowering plants (e.g. higher plants) possess?
 - a) single fertilization
 - b) pollination
 - c) double fertilization
 - d) stigmatation
 - e) deposition
- 5) The egg and sperm nuclei are also called _____.
 - a) sex cells
 - b) diploid nuclei
 - c) gametes
 - d) partners
 - e) significant others
- 6) Which of the following is not a stage in seed germination?
 - a) activation of metabolism
 - b) digestion of stored food
 - c) cell division
 - d) imbibition
 - e) union of gametes
- 7) Where would you find the egg in the ovule?
 - a) in the embryo
 - b) in the zygote
 - c) in the nucleus
 - d) in the embryo sac
 - e) in the megaspore
- 8) What part of the flower contains the pollen grains?
 - a) megasporangia
 - b) embryo sac
 - c) anther
 - d) ovary
 - e) pistil
- 9) What phase of growth does a plant have to be exhibiting in order to flower?
 - a) adult phase
 - b) pre-puberty phase
 - c) juvenile phase
 - d) post-puberty phase
- 10) Have we proven the concept that every cell in a plant has the genetic potential to reproduce the entire plant?
 - a) yes
 - b) no

- 11) If I discover a very unique looking youpon shrub in my yard and propagate it by cuttings to produce thousands of young plants, then that population or group of plants would be an example of _____.
 a) a clone
 b) apomixis
 c) parthenocarpy
 d) cousins
 e) a hybrid
- 12) Holly seeds have immature embryos, and if I want to make them germinate I could _____.
 a) expose them to red light
 b) use cold scarification
 c) soak them in water
 d) scarification them
 e) excise their embryos and put them in tissue culture
- 13) What type of dormancy is hard seed coat dormancy of seeds?
 a) quiescence
 b) rest
- 14) Tomato seeds will not germinate in the fruit and must be extracted and cleaned in order for them to germinate because of inhibitors in the flesh of the fruit. What is the advantage of this?
 a) to assure germination in the spring only
 b) acts as a rain gauge
 c) prevents vivipary
 d) measures depth of planting
 e) spreads germination over more than one growing season
- 15) What is the most common type of seed dormancy?
 a) quiescence due to lack of water
 b) rest due to lack of cold
 c) quiescence due to too high temperature
 d) rest due to photoperiod
- 16) Which of the following is not a way to minimize water loss by cuttings?
 a) place in humidity chamber
 b) spray with antitranspirants
 c) place in a cool, humid place
 d) use an intermittent mist system
 e) all are methods that are used
- 17) If you have a variegated monocot plant where only the very edge of the leaf is white, which layer is most likely mutated?
 a) L-I
 b) L-II
 c) L-III
 d) L-IV
- 18) Would you predict that a chimera could be propagated true-to-type by layering?
 a) yes
 b) no
- 19) _____ stimulates adventitious shoots and _____ stimulates adventitious roots of cuttings.
 a) auxin / cytokinin
 b) cytokinin / auxin
 c) gibberellic acid / cytokinin
 d) gibberellic acid / auxin
- 20) For nutrient mist, apply ____ of any complete, soluble fertilizer, such as 20-20-20, per ____ of water.
 a) 2-6 oz / 10 gal
 b) 2-6 oz / 100 gal
 c) 2-6 lb / 10 gal
 d) 2-6 lb / 100 gal

- 21) ____ is a type of propagation where roots are induced to be formed on the plant part after it is detached from the parent plant.
- a) cutting
 - b) layering
 - c) grafting
 - d) division
 - e) no propagation technique does this
- 22) When we make a cut in layering, we are trying to selectively cut the ____.
- a) xylem
 - b) cambium
 - c) phloem
 - d) periderm
- 23) What type of layering covers the stem in multiple places along the stem (i.e., the stem is laid along the ground and some portions are buried while other portions are left exposed)?
- a) repetitive layer
 - b) simple layer
 - c) serpentine layer
 - d) tip layer
 - e) none of these types use this stem placement
- 24) If you pile soil around the base of a shrub to induce roots to form at the base of the limb, this would be called ____ layering.
- a) simple
 - b) tip
 - c) mound
 - d) submerged
 - e) none of these are correct because it would kill the stem
- 25) Which of the following is not an advantage or use of grafting?
- a) get disease resistance of stock
 - b) produces a hybrid
 - c) by-passes juvenile phase
 - d) change variety
- 26) The top part of a graft is called the ____.
- a) scion
 - b) interstock
 - c) stock
 - d) cutting
- 27) The first step in graft union formation is ____.
- a) cambium formation
 - b) callus formation
 - c) union of gametes
 - d) xylem and phloem formation
- 28) What type of grafting is used to repair a damaged bark at the base of a tree?
- a) brace
 - b) side
 - c) bridge
 - d) inarching
 - e) cleft
- 29) For which of the following are the stock and scion of equal size?
- a) splice
 - b) cleft
 - c) bark inlay
 - d) notch
 - e) patch
- 30) What is the type grafting when all the limbs on an entire tree are grafted?
- a) approach
 - b) cleft
 - c) top working
 - d) splice
 - e) side

- 31) What is the name of the grafting method where the top of the stock is cut-off, the bark is peeling back on the side, and a scion is inserted under the bark?
- a) approach
 - b) side
 - c) bark inlay
 - d) splice
 - e) bridge
- 32) All budding methods require the bark to be slipping.
- a) true
 - b) false
- 33) What type of budding removes a partial ring from around the stock?
- a) patch
 - b) flute
 - c) ring
 - d) chip
 - e) I
- 34) Which of the following **IS NOT** an objective or advantage of pruning?
- a) dwarfing
 - b) invigoration
 - c) safety
 - d) increase productivity
 - e) all are objectives or advantages of pruning
- 35) To properly prune a large limb on a tree, where is the first cut made?
- a) on the top of the limb about 6 inches out
 - b) flush with the trunk
 - c) on the bottom of the limb about 6 inches out
- 36) Narrow crotch angles are better than wide crotch angles.
- a) true
 - b) false
- 37) Very drastic pruning is called _____?
- a) heading-back
 - b) root pruning
 - c) dehorning
 - d) disbudding
 - e) thinning-out
- 38) To make the canopy of a tree more dense, what pruning technique should be used?
- a) thinning-out
 - b) dehorning
 - c) heading-back
 - d) disbudding
 - e) scalping
- 39) To make the canopy of a shrub more less dense, what pruning technique should be used?
- a) thinning-out
 - b) hedging
 - c) lopping
 - d) destemming
 - e) scalping
- 40) When is the best time to prune trees that do not flower?
- a) in late summer
 - b) in late spring
 - c) after the cold of winter, but before new growth in the spring
- 41) If I prune a shrub in my front yard to look like a sculpture of me, it would be called a(an) _____.
- a) topiary
 - b) espalier
 - c) manicuring
 - d) sculpturing

KEY

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|-----|---|-----|---|
| 1) | b | 26) | a |
| 2) | b | 27) | b |
| 3) | b | 28) | c |
| 4) | c | 29) | a |
| 5) | c | 30) | c |
| 6) | e | 31) | c |
| 7) | d | 32) | b |
| 8) | c | 33) | b |
| 9) | a | 34) | e |
| 10) | a | 35) | c |
| 11) | a | 36) | b |
| 12) | e | 37) | c |
| 13) | a | 38) | c |
| 14) | c | 39) | a |
| 15) | a | 40) | c |
| 16) | e | 41) | a |
| 17) | a | 42) | a |
| 18) | a | 43) | a |
| 19) | b | 44) | a |
| 20) | b | 45) | d |
| 21) | a | 46) | a |
| 22) | c | 47) | a |
| 23) | c | 48) | d |
| 24) | c | 49) | e |
| 25) | b | 50) | a |