

Advanced Horticulture Knowledge

Horticulture · Practice Test · 20 Questions

1. Which process involves the movement of water from the soil into the root system due to lower water potential in the roots?

- A) Transpiration
- B) Osmosis
- C) Photosynthesis
- D) Respiration

2. What is the primary function of the plant hormone gibberellin in commercial horticulture?

- A) Inducing fruit ripening
- B) Promoting stem elongation
- C) Inhibiting weed growth
- D) Stimulating root formation

3. Which soil horizon is primarily composed of organic matter in various stages of decomposition?

- A) O Horizon
- B) A Horizon
- C) B Horizon
- D) C Horizon

4. In plant propagation, what is the specific biological purpose of 'scarification' for seeds?

- A) Adding nutrients to the seed coat
- B) Removing pathogens from the surface
- C) Breaking physical dormancy of the seed coat
- D) Increasing light sensitivity

5. Which macronutrient is primarily responsible for vigorous leaf growth and the production of chlorophyll?

- A) Phosphorus
- B) Potassium
- C) Nitrogen
- D) Calcium

6. What type of plant life cycle completes its entire development from seed to seed in exactly two growing seasons?

- A) Annual
- B) Perennial
- C) Biennial
- D) Ephemeral

7. Which pruning technique involves removing a large branch back to its point of origin or to a lateral branch large enough to assume dominance?

- A) Heading back
- B) Thinning cut
- C) Pinching
- D) Disbudding

8. What is the term for the biological mechanism where a plant responds to the length of day or night to initiate flowering?

- A) Phototropism
- B) Photoperiodism
- C) Thigmotropism
- D) Gravitropism

9. Which greenhouse environmental factor is measured using a hygrometer?

- A) Light intensity
- B) Soil pH
- C) Relative humidity
- D) Carbon dioxide concentration

10. What is the function of the cambium layer in woody plants?

- A) Transporting mineral nutrients
- B) Protecting the inner vascular tissue
- C) Producing secondary xylem and phloem
- D) Storing excess starch

11. Which of the following is a common symptom of a plant experiencing chlorosis?

- A) Rapid fruit drop
- B) Yellowing of leaves due to lack of chlorophyll
- C) Excessive wilting during the night
- D) Rapid elongation of internodes

12. What is the primary reason for 'hardening off' greenhouse-grown transplants before moving them outdoors?

- A) To acclimatize plants to lower humidity and higher light intensity
- B) To induce early flowering
- C) To remove dormant insects
- D) To increase the soil nutrient density

13. Which component of the soil texture triangle represents the smallest soil particle size?

- A) Sand
- B) Silt
- C) Clay
- D) Loam

14. In sexual reproduction of flowering plants, where does the pollen grain land to initiate fertilization?

- A) Stamen
- B) Ovary
- C) Stigma
- D) Sepal

15. What is the horticultural term for the practice of growing plants in a nutrient-rich water solution without soil?

- A) Aeroponics
- B) Aquaponics
- C) Hydroponics
- D) Geoponics

16. Which plant tissue is responsible for the transport of sugars (photosynthates) from leaves to the rest of the plant?

- A) Xylem
- B) Phloem
- C) Epidermis
- D) Cortex

17. What does the N-P-K number on a fertilizer bag represent?

- A) Nitrogen, Phosphorus, Potassium
- B) Nitrogen, Potassium, Phosphorus
- C) Nitrate, Phosphate, Kelp
- D) Nitrogen, Protein, Potassium

18. Which type of grafting involves joining a scion of one plant to the rootstock of another to combine desirable traits?

- A) Layering
- B) Budding
- C) Division
- D) Cutting

19. What is the main role of mycorrhizal fungi when associated with plant roots?

- A) Causing disease in the root system
- B) Increasing the surface area for nutrient and water uptake
- C) Producing toxic substances to deter herbivores
- D) Preventing pollination

20. What is the specific term for the loss of water vapor from the aerial parts of a plant, primarily through the stomata?

- A) Guttation
- B) Transpiration
- C) Respiration
- D) Photosynthesis