

Fundamentals of Horticulture

Horticulture · Answer Key · 20 Questions

1. Which essential plant nutrient is primarily responsible for promoting healthy green leaf growth?

A) Nitrogen

B) Phosphorus

C) Potassium

D) Calcium

2. What is the primary function of the stomata on the underside of a leaf?

A) Absorbing soil nutrients

B) Gas exchange

C) Anchoring the plant

D) Storing starch

3. In soil science, which particle size is the smallest?

A) Sand

B) Silt

C) Clay

D) Gravel

4. What is the process by which plants convert sunlight into chemical energy?

A) Respiration

B) Transpiration

C) Photosynthesis

D) Germination

5. Which botanical term describes a plant that completes its life cycle in exactly one growing season?

A) Perennial

B) Biennial

C) Annual

D) Deciduous

6. What pH range is generally considered ideal for most garden plants?

A) 3.0 to 4.5

B) 6.0 to 7.0

C) 9.0 to 10.5

D) 11.0 to 12.0

7. Which part of the plant is primarily responsible for absorbing water and minerals from the soil?

- A) Stem
- B) Flower
- C) Leaf

D) Root

8. What is the term for the method of propagating plants using stem, leaf, or root pieces?

- A) Grafting

B) Cuttings

- C) Layering
- D) Budding

9. Which of these is considered a 'macronutrient' required by plants in large amounts?

- A) Iron
- B) Zinc

C) Magnesium

- D) Manganese

10. What is the primary purpose of 'mulching' in a vegetable garden?

- A) To increase soil acidity

B) To prevent weed growth and retain moisture

- C) To improve pollination rates
- D) To kill soil-borne insects

11. Which group of plants is known for their ability to 'fix' nitrogen in the soil?

A) Legumes

- B) Grasses
- C) Cacti
- D) Ferns

12. What does the term 'deciduous' mean in relation to trees and shrubs?

- A) They stay green all year
- B) They produce fruit in winter

C) They shed their leaves annually

- D) They are drought-resistant

13. Which tool is most appropriate for pruning thin, woody branches?

A) Rake

B) Secateurs

C) Shovel

D) Hoe

14. What is the main role of xylem tissue within a plant?

A) Transporting sugars

B) Transporting water

C) Storing protein

D) Protecting the bark

15. What is the term for the growth of a plant toward a light source?

A) Geotropism

B) Thigmotropism

C) Phototropism

D) Hydrotropism

16. Which type of soil is characterized by its gritty texture and rapid drainage?

A) Clay

B) Loam

C) Sand

D) Peat

17. What is the botanical name for the ripened ovary of a flowering plant?

A) Seed

B) Fruit

C) Flower

D) Embryo

18. Which environmental factor most significantly triggers the germination of most seeds?

A) Wind

B) Moisture

C) Soil depth

D) Insects

19. What is the primary benefit of crop rotation in a garden?

A) Improving soil structure and reducing pest buildup

B) Increasing the height of plants

C) Making the soil more alkaline

D) Preventing the need for sunlight

20. Which gas do plants primarily take in from the atmosphere during photosynthesis?

- A) Oxygen
- B) Nitrogen
- C) Carbon dioxide**
- D) Hydrogen