

Chapters 4, 5 & 6: Plant Problem Solving Quiz

(revised 11/2025)

Covers: Virginia Commonwealth Extension - 2023 Master Gardener Handbook - Chapter 4 - Plant Pathology, Pages 95-108 (Questions 1-7)

Virginia Commonwealth Extension - 2023 Master Gardener Handbook - Chapter 5 - Abiotic Stress Effects on Plant Growth and Development, Pages 109-127 (Questions 8-9)

Virginia Commonwealth Extension - 2023 Master Gardener Handbook - Chapter 6 - Diagnosing Plant Damage, Pages 128-190 (Questions 10-12)

Question
<p>1. A plant disease is any disturbance that prevents the normal development of a plant and reduces its economic or aesthetic value.</p> <p>A. True B. False</p>
<p>2. Root galls or swollen root tips are common symptoms of</p> <p>A. fungi B. bacteria C. viruses D. nematodes</p>
<p>3. Which of the following is true about general chlorosis?</p> <p>A. It occurs when a plant produces too much chlorophyll. B. It is sometimes referred to as leaf drop. C. It is caused by nutrient deficiencies, root problems, nematodes D. It only appears on leaf edges.</p>
<p>4. Which of the following is NOT a cultural practice used to reduce disease causing pathogens?</p> <p>A. Planting only CERTIFIED AS DISEASE FREE seed or planting stock B. Crop Rotation - Rotating plants with a species of plant that is not a host for a particular pathogen to prevent buildup of that pathogen over the years C. Sanitation - disinfecting tools to prevent spread of plant disease D. Using furrow and flood irrigation practices</p>

5. Which of the following conditions is **not** necessary for plant disease to occur?

- A. Active pathogen
- B. Susceptible host
- C. Environment suitable for the pathogen to infect the plant
- D. Eradication of inoculum

6. The most common organic control used against disease is

- A. insecticidal soap
- B. mineral fungicides, such as copper and sulfur
- C. NEEM oil
- D. certified organic penetrant pesticides

7. Which of the following is an example of measures to effectively control plant disease by avoiding attack?

- A. Keep host and pathogen out of striking distance from each other.
- B. Reduce or eradicate inoculum.
- C. Reduce or eliminate chances of infection using both chemical and cultural protection.
- D. All of the above

8. Abiotic stresses are caused by another living organism, whereas, biotic stress is caused by the physical/chemical environment.

- A. True
- B. False

9. Herbicides are either applied to soils (pre-emergence) to control newly germinating seedlings or directly to shoots and foliage (post-emergence) to control already established growing plants. The mode of action of a herbicide refers to how the chemical affects the physiology, biochemistry, and development of the plant.

- A. True
- B. False

10. When using a model for diagnosing plant damage, the first step in the process is to _____.

- A. Define the problem
- B. collect plant specimens
- C. look for nonuniform damage patterns
- D. contact your local extension agent

11. When attempting to distinguish among living factors that may be causing plant damage, a close examination of the symptoms and signs is required. Symptoms are a modified appearance of the affected plant, such as necrotic tissue, chlorosis, cankers, galls and leaf distortion. Signs might include:

- A. visual observation of insects on the plant
- B. Insect egg masses
- C. honeydew or sooty mold on the tree bark
- D. spores
- E. mite webbing
- F. all of the above

12. Using the diagnostic key in Chapter 6, what is/are the possible cause(s) for a disease on apple trees with the following symptoms: spots have light tan centers and brown borders, large, rotted spots with black pimply structures appear on fruit, and cankers with black pimply structures may appear on twigs?

- A. Alternaria Blotch (fungal disease)
- B. Cedar Apple Rust (fungal disease)
- C. Scab (fungal disease)
- D. Frogeye leaf spot, also called black rot (fungal disease)