|  |  |  |  |
| --- | --- | --- | --- |
| **Student Name:** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | |
| **Teacher:** | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **Date:** | **\_\_\_\_\_\_\_\_\_\_\_** |
| **Test:** | **9\_12 Agriculture AP41 - Horticulture I Test 1** | | |
| **Description:** | **Horticulture I** |  |  |
| **Form:** | **501** |  |  |

**1.00**

|  |  |
| --- | --- |
| **1.** | **Which MOST likely represents the FFA goal to make a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Colors** |
|  | **B.** | **Mission statement** |
|  | **C.** | **Motto** |
|  | **D.** | **Offiicial dress** |

|  |  |
| --- | --- |
| **2.** | **The FFA Career Development Event (CDE) that will help develop knowledge and skills needed to effectively participate in a horticulture organization's business meeting is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Floriculture.** |
|  | **B.** | **Introduction to Horticulture.** |
|  | **C.** | **Nursery/Landscape.** |
|  | **D.** | **Parliamentary Procedure.** |

|  |  |
| --- | --- |
| **3.** | **FFA helps students develop leadership beyond the class and local school chapter.  What is the FIRST level of participation above the chapter level?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Federation** |
|  | **B.** | **National FFA Organization** |
|  | **C.** | **North Carolina FFA Association** |
|  | **D.** | **Region** |

|  |  |
| --- | --- |
| **4.** | **The rising sun is an important part of the FFA emblem because it represents:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Agricultural knowledge and wisdom.** |
|  | **B.** | **Agricultural opportunity and progress.** |
|  | **C.** | **Hard work associated with agriculture.** |
|  | **D.** | **National scope of the FFA.** |

|  |  |
| --- | --- |
| **5.** | **The plow reminds agricultural students and FFA members of what important principle?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Common agricultural interest of all students** |
|  | **B.** | **Knowledge is important to success** |
|  | **C.** | **National scope of the FFA** |
|  | **D.** | **Value of hard work** |

|  |  |
| --- | --- |
| **6.** | **What Brian learns while serving as FFA Chapter Secretary could be used after graduation in horticulture organizations to:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Count money.** |
|  | **B.** | **Prepare budgets.** |
|  | **C.** | **Preside over meetings.** |
|  | **D.** | **Write minutes of meetings.** |

|  |  |
| --- | --- |
| **7.** | **The part of the horticulture instructional program that provides opportunities to develop leadership, teamwork, citizenship, personal growth and career success is the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **FFA.** |
|  | **B.** | **Horticulture knowledge.** |
|  | **C.** | **Plant nursery.** |
|  | **D.** | **Supervised Agricultural Experience.** |

|  |  |
| --- | --- |
| **8.** | **Sue wears a white collared shirt, black shoes, black skirt, FFA scarf and FFA jacket zipped halfway to the top.  What component of  Official FFA dress is she missing?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Black shoes should be brown** |
|  | **B.** | **Jacket should be zipped to the top** |
|  | **C.** | **Shirt should be blue rather than white** |
|  | **D.** | **Skirt should be navy blue** |

|  |  |
| --- | --- |
| **9.** | **Serving as FFA Treasurer can help Juan gain experience that he might later use in an horticulture organizations to:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Cook steaks.** |
|  | **B.** | **Keep financial records.** |
|  | **C.** | **Write minutes of meetings.** |
|  | **D.** | **Write news reports.** |

|  |  |
| --- | --- |
| **10.** | **The eagle is an important part of FFA tradition because it symolizes the national scope of the FFA.  Students MOST likely will find an eagle in the FFA:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Colors.** |
|  | **B.** | **Emblem.** |
|  | **C.** | **Motto.** |
|  | **D.** | **Pledge.** |

|  |  |
| --- | --- |
| **11.** | **Scott prepares and presents a speech to the local homeowners association about his recent trip to the Biltmore gardens. He shares the kinds of flowers, shrubs, and trees that he saw at Biltmore. What are the MAIN purposes for Scott's speech?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Inform and entertain** |
|  | **B.** | **Inform and sell** |
|  | **C.** | **Persuade and entertain** |
|  | **D.** | **Persuade and sell** |

**2.00**

|  |  |
| --- | --- |
| **12.** | **Which principle of parliamentary law helps prevent confusion and makes conducting business easier to understand?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Courtesy is extended to everyone** |
|  | **B.** | **Only one item is addressed at a time** |
|  | **C.** | **Rights of the minority are protected** |
|  | **D.** | **The majority rules on all questions** |

|  |  |
| --- | --- |
| **13.** | **Jordan thinks it is time to close the meeting. To do this, he would move to:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Adjourn.** |
|  | **B.** | **Amend.** |
|  | **C.** | **Lay on the table.** |
|  | **D.** | **Refer to a committee.** |

|  |  |
| --- | --- |
| **14.** | **To conduct official business using well-defined rules and procedures so that all members can participate, the organization uses:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Consensus.** |
|  | **B.** | **Harassment.** |
|  | **C.** | **Parliamentary Procedure.** |
|  | **D.** | **Threats.** |

|  |  |
| --- | --- |
| **15.** | **The president calls for a voice vote on a main motion and announces that the motion passes. If a member wants a counted vote, they should:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Amend the motion.** |
|  | **B.** | **Call for a division.** |
|  | **C.** | **Move to adjourn.** |
|  | **D.** | **Take from the table.** |

|  |  |
| --- | --- |
| **16.** | **Giving all members the opportunity to make, second, discuss and vote on motions is an example of which parliamentary procedure principle?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Only one item is considered at a time** |
|  | **B.** | **Rights of the minority are protected** |
|  | **C.** | **The majority rules** |
|  | **D.** | **The president is the boss** |

|  |  |
| --- | --- |
| **17.** | **The club parliamentarian wants to purchase a parliamentary procedure book that is recognized as the "authority". Which of these should he purchase?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **FFA Advisor's Manual** |
|  | **B.** | **FFA Student Handbook** |
|  | **C.** | **N.C. Pesticide Manual** |
|  | **D.** | **Robert's Rules of Order** |

|  |  |
| --- | --- |
| **18.** | **The MAJOR advantage of using parliamentary procedure in a business meeting is that:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **A small minority can control the meeting.** |
|  | **B.** | **Business is conducted fairly and quickly.** |
|  | **C.** | **Students learn how the courts work.** |
|  | **D.** | **Teachers have more control over meetings.** |

|  |  |
| --- | --- |
| **19.** | **Seth is presenting a speech on the values of composting.  During what phase of the speech will he try to get the attention of the audience so that they will listen with interest?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Bibliography** |
|  | **B.** | **Body** |
|  | **C.** | **Conclusion** |
|  | **D.** | **Introduction** |

|  |  |
| --- | --- |
| **20.** | **In addition to maintaining good eye contact, what will MOST help Silas keep his audience engaged?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Desire to get the speech finished so he can sit down** |
|  | **B.** | **Passion and sincerity he has for the topic** |
|  | **C.** | **Reading the speech from note cards** |
|  | **D.** | **Reading the speech manuscript** |

|  |  |
| --- | --- |
| **21.** | **Tonya moved to sell candy to raise money for scholarships. Adam wants to sell flowers. To change the motion, Adam would move to:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Adjourn.** |
|  | **B.** | **Amend.** |
|  | **C.** | **Appeal.** |
|  | **D.** | **Argue.** |

|  |  |
| --- | --- |
| **22.** | **Prior to the FFA meeting, Emma makes a list of things that will be done during the  business meeting.  Which is she preparing?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Agenda** |
|  | **B.** | **Committee report** |
|  | **C.** | **Minutes** |
|  | **D.** | **Treasurer's report** |

|  |  |
| --- | --- |
| **23.** | **Amber wants to present an idea to be discussed and voted on by other members. The first three words she says in making the main motion are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **"Hello, I am..."** |
|  | **B.** | **"I move that..."** |
|  | **C.** | **"I think we..."** |
|  | **D.** | **"I want to..."** |

|  |  |
| --- | --- |
| **24.** | **Alex believes that Jessica is discussing a motion that is not debatable. To correct this mistake, Alex should:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Call for a division.** |
|  | **B.** | **Move to adjourn.** |
|  | **C.** | **Move to amend.** |
|  | **D.** | **Rise to a point of order.** |

|  |  |
| --- | --- |
| **25.** | **During a business meeting, James moved to enter a float in the homecoming parade. Before action can be taken, the motion must be:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Amended.** |
|  | **B.** | **Defeated.** |
|  | **C.** | **Passed.** |
|  | **D.** | **Seconded.** |

|  |  |
| --- | --- |
| **26.** | **A person who must be skilled in checking horticultural products for diseases, insects and quality is a/an:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Accountant.** |
|  | **B.** | **Inspector.** |
|  | **C.** | **Sales representative.** |
|  | **D.** | **Teacher.** |

|  |  |
| --- | --- |
| **27.** | **Who is responsible for displaying and selling bedding plants?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Garden center employee** |
|  | **B.** | **Greenskeeper** |
|  | **C.** | **Landscape designer** |
|  | **D.** | **Lawn maintenance employer** |

|  |  |
| --- | --- |
| **28.** | **Which type of employee cares for the land area and plants surrounding a business, industry, church or school?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Garden center** |
|  | **B.** | **Golf course** |
|  | **C.** | **Grounds maintenance** |
|  | **D.** | **Nursery** |

|  |  |
| --- | --- |
| **29.** | **Which comes from a Latin word meaning "garden cultivation" and includes vegetables, fruits and ornamental plants?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Agronomy** |
|  | **B.** | **Forestry** |
|  | **C.** | **Horticulture** |
|  | **D.** | **Zoology** |

|  |  |
| --- | --- |
| **30.** | **Which horticulture division includes vegetable production is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Floriculture.** |
|  | **B.** | **Forestry.** |
|  | **C.** | **Olericulture.** |
|  | **D.** | **Turf grass.** |

|  |  |
| --- | --- |
| **31.** | **The science MOST associated with the study of plants grown for food or beautification is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Agronomy.** |
|  | **B.** | **Forestry.** |
|  | **C.** | **Horticulture.** |
|  | **D.** | **Physics.** |

|  |  |
| --- | --- |
| **32.** | **Compared to entry level jobs, professional careers usually require special license and:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Less education.** |
|  | **B.** | **More manual labor.** |
|  | **C.** | **More outside work.** |
|  | **D.** | **More paper work.** |

|  |  |
| --- | --- |
| **33.** | **The part of the horticulture industry MOST associated with growing, maintaining and processing grapes is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Floriculture.** |
|  | **B.** | **Olericulture.** |
|  | **C.** | **Pomology.** |
|  | **D.** | **Viticulture.** |

|  |  |
| --- | --- |
| **34.** | **Which  is MOST interested in reducing the carbon footprint?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Garden center salesperson** |
|  | **B.** | **Golf course attendant** |
|  | **C.** | **Green industry employee** |
|  | **D.** | **Park ranger** |

|  |  |
| --- | --- |
| **35.** | **As a garden center worker, Julie should:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Be a high school dropout.** |
|  | **B.** | **Be unfriendly to customers.** |
|  | **C.** | **Enjoy working with people and plants.** |
|  | **D.** | **Expect to work in air conditioning.** |

|  |  |
| --- | --- |
| **36.** | **The area of horticulture that includes growing and harvesting flowers and making and selling flower arrangements is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Agronomy.** |
|  | **B.** | **Floriculture.** |
|  | **C.** | **Forestry.** |
|  | **D.** | **Pomology.** |

|  |  |
| --- | --- |
| **37.** | **Which one is responsible for maintaining fairway and greens turf as well as sand traps and irrigation?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Floriculturist** |
|  | **B.** | **Garden center employee** |
|  | **C.** | **Golf course employee** |
|  | **D.** | **Greenhouse worker** |

|  |  |
| --- | --- |
| **38.** | **Joey spent two hours on Saturday pruning a fruit tree although his Supervised Agricultural Experience program is producing bedding plants in his own greenhouse. In which section of the SAE Record would he enter the fruit tree pruning activity?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Analytical** |
|  | **B.** | **Experimental** |
|  | **C.** | **Placement** |
|  | **D.** | **Supplementary** |

|  |  |
| --- | --- |
| **39.** | **What type Supervised Agricultural Experience is Jose doing if he visits a wholesale nursery and shadows employees to learn about careers?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Analytical** |
|  | **B.** | **Entrepreneurship** |
|  | **C.** | **Exploratory** |
|  | **D.** | **Supplementary** |

|  |  |
| --- | --- |
| **40.** | **Joe spent several days landscaping his home to help the appearance and to increase the comfort and value. What Supervised Agricultural Experience is Joe conducting?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Analytical** |
|  | **B.** | **Experimental** |
|  | **C.** | **Improvement** |
|  | **D.** | **Placement** |

|  |  |
| --- | --- |
| **41.** | **Sean is working on the training agreement part of his Supervised Agricultural Experience.  It is signed by himself, parent or guardian, employer or supervisor.  This is part of what type of SAE?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Analytical** |
|  | **B.** | **Entrepreneurship** |
|  | **C.** | **Improvement** |
|  | **D.** | **Placement** |

|  |  |
| --- | --- |
| **42.** | **Which SAE Record heading would be used by Charles if he has an entrepreneurship type Supervised Agricultural Experience?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Hypothesis** |
|  | **B.** | **Review of literature** |
|  | **C.** | **Training agreement** |
|  | **D.** | **Type of enterprise** |

|  |  |
| --- | --- |
| **43.** | **Angela has a part-time job working after school and on Saturdays at a local florist. In what type of Supervised Agricultural Experience is Angela participating?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Analytical** |
|  | **B.** | **Improvement** |
|  | **C.** | **Placement** |
|  | **D.** | **Supplementary** |

|  |  |
| --- | --- |
| **44.** | **If Jerome made an entry in the SAE Record under the "Hypothesis" heading, which type of Supervised Agricultural Experience would he have?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Entrepreneurship** |
|  | **B.** | **Experimental** |
|  | **C.** | **Exploratory** |
|  | **D.** | **Placement** |

|  |  |
| --- | --- |
| **45.** | **Sheri's Supervised Agricultural Experience is to identify an agricultural problem that cannot be solved by experiments.  It does involve designing a plan to investigate and analyze the problem.  What type of SAE is Sheri working on?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Analytical** |
|  | **B.** | **Entrepreneurship** |
|  | **C.** | **Experimental** |
|  | **D.** | **Exploratory** |

|  |  |
| --- | --- |
| **46.** | **Michele is computerizing the production records for a local nursery operation.  This is an example of what type of Supervised Agricultural Experience?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Analytical** |
|  | **B.** | **Entrepreneurship** |
|  | **C.** | **Improvement** |
|  | **D.** | **Placement** |

|  |  |
| --- | --- |
| **47.** | **Carl keeps accurate records including amounts of items bought and sold for his Supervised Agricultural Experience.  What type of SAE is Carl working on?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Analytical** |
|  | **B.** | **Entrepreneurship** |
|  | **C.** | **Improvement** |
|  | **D.** | **Placement** |

**3.01**

|  |  |
| --- | --- |
| **48.** | **Plants that complete their life cycles in two years are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Annuals.** |
|  | **B.** | **Biennials.** |
|  | **C.** | **Centennials.** |
|  | **D.** | **Perennials.** |

|  |  |
| --- | --- |
| **49.** | **The terms annual, biennial and perennial describe plant:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Leaf loss.** |
|  | **B.** | **Life cycle.** |
|  | **C.** | **Production practices.** |
|  | **D.** | **Root type.** |

|  |  |
| --- | --- |
| **50.** | **As part of regular biological processes, a deciduous tree:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Dies each year in the winter.** |
|  | **B.** | **Drops its functional leaves in the dormant season.** |
|  | **C.** | **Keeps its functional leaves in the dormant season.** |
|  | **D.** | **Remains green all the year.** |

|  |  |
| --- | --- |
| **51.** | **Annual plants complete their life cycle in:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **One year.** |
|  | **B.** | **Two years.** |
|  | **C.** | **Three years.** |
|  | **D.** | **Ten years.** |

|  |  |
| --- | --- |
| **52.** | **If a plant is turgid, it is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Drowned and drooping.** |
|  | **B.** | **Pale green or yellow.** |
|  | **C.** | **Swollen with moisture.** |
|  | **D.** | **Wilted from lack of water.** |

|  |  |
| --- | --- |
| **53.** | **In North Carolina, a tree that has no leaves in the winter is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Deciduous.** |
|  | **B.** | **Evergreen.** |
|  | **C.** | **Herbaceous.** |
|  | **D.** | **Turgid.** |

|  |  |
| --- | --- |
| **54.** | **Plants that take three or more years to complete their life cycle are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Annuals.** |
|  | **B.** | **Biennials.** |
|  | **C.** | **Millenniums.** |
|  | **D.** | **Perennials.** |

|  |  |
| --- | --- |
| **55.** | **MOST cool-season grasses grow very little during the hottest months of summer.  What is this condition called?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Dead** |
|  | **B.** | **Dormant** |
|  | **C.** | **Turgid** |
|  | **D.** | **Wilted** |

|  |  |
| --- | --- |
| **56.** | **Marigolds and other warm-season plants grow BEST during:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Early spring.** |
|  | **B.** | **Late fall.** |
|  | **C.** | **Mid summer.** |
|  | **D.** | **Mid winter.** |

|  |  |
| --- | --- |
| **57.** | **Trees that keep their functional leaves throughout the year are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Auxins.** |
|  | **B.** | **Deciduous.** |
|  | **C.** | **Evergreen.** |
|  | **D.** | **Inhibitors.** |

|  |  |
| --- | --- |
| **58.** | **Because trees live many years, they are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Annuals.** |
|  | **B.** | **Biennials.** |
|  | **C.** | **Perennials.** |
|  | **D.** | **Semi-annuals.** |

**3.02**

|  |  |
| --- | --- |
| **59.** | **The plant part that attracts insects for pollination is the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Flower.** |
|  | **B.** | **Leaf.** |
|  | **C.** | **Root.** |
|  | **D.** | **Stem.** |

|  |  |
| --- | --- |
| **60.** | **Anchoring plants, storing food and absorbing water are functions of plant:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Flowers.** |
|  | **B.** | **Fruits.** |
|  | **C.** | **Leaves.** |
|  | **D.** | **Roots.** |

|  |  |
| --- | --- |
| **61.** | **The primary function of plant seeds is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Absorption.** |
|  | **B.** | **Photosynthesis.** |
|  | **C.** | **Plant identification.** |
|  | **D.** | **Sexual reproduction.** |

|  |  |
| --- | --- |
| **62.** | **The edge of a leaf is the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Margin.** |
|  | **B.** | **Midrib.** |
|  | **C.** | **Terminal bud.** |
|  | **D.** | **Veins.** |

|  |  |
| --- | --- |
| **63.** | **What type flower has ONLY male or ONLY female flower parts?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Asexual** |
|  | **B.** | **Complete** |
|  | **C.** | **Incomplete** |
|  | **D.** | **Pretty** |

|  |  |
| --- | --- |
| **64.** | **Which type of root system causes plants to be easier to transplant?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Fibrous** |
|  | **B.** | **Long** |
|  | **C.** | **Sharp** |
|  | **D.** | **Tap** |

|  |  |
| --- | --- |
| **65.** | **The primary function of fruit is to:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Absorb water and nutrients from soil.** |
|  | **B.** | **Carry, nourish and protect seeds.** |
|  | **C.** | **Connect roots to leaves.** |
|  | **D.** | **Manufacture food for the plant.** |

|  |  |
| --- | --- |
| **66.** | **What type bud is on the side of a stem?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Apical** |
|  | **B.** | **Lateral** |
|  | **C.** | **Lentical** |
|  | **D.** | **Terminal** |

|  |  |
| --- | --- |
| **67.** | **The openings or stomates in the lower leaf surface are opened and closed by the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Guard cells.** |
|  | **B.** | **Lateral buds.** |
|  | **C.** | **Margins.** |
|  | **D.** | **Xylem.** |

|  |  |
| --- | --- |
| **68.** | **Monocot stems have the xylem and phloem:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **In small bundles scattered through the stem.** |
|  | **B.** | **In ten layers or ten circles.** |
|  | **C.** | **On each side of the cambium layer.** |
|  | **D.** | **On the outside of the stem.** |

|  |  |
| --- | --- |
| **69.** | **Which is part of a stem?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Anther** |
|  | **B.** | **Filament** |
|  | **C.** | **Leaf scars** |
|  | **D.** | **Root cap** |

|  |  |
| --- | --- |
| **70.** | **The part of a flower that develops into a fruit is the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Anther.** |
|  | **B.** | **Filament.** |
|  | **C.** | **Ovary.** |
|  | **D.** | **Petal.** |

|  |  |
| --- | --- |
| **71.** | **The beginning of the food chain for all living things is the process of photosynthesis which takes place in plant:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Flowers.** |
|  | **B.** | **Leaves.** |
|  | **C.** | **Roots.** |
|  | **D.** | **Stems.** |

|  |  |
| --- | --- |
| **72.** | **The green color of leaves is caused by the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Chloroplasts.** |
|  | **B.** | **Epidermis.** |
|  | **C.** | **Guard cells.** |
|  | **D.** | **Margin.** |

**3.03**

|  |  |
| --- | --- |
| **73.** | **Alphonso has a small deciduous tree with heart-shaped leaves, three to five inch long brown bean-type pods and pink-purple colored flowers depending on the season of the year. It is an:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Ajuga.** |
|  | **B.** | **Eastern Red Bud.** |
|  | **C.** | **Eastern White Pine.** |
|  | **D.** | **English Ivy.** |

|  |  |
| --- | --- |
| **74.** | **Gene has an interior plant in his office. The plant is about 4 feet tall and looks similar to a little pine or cedar tree with dark green leaves. It is a/an:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Eastern White Pine.** |
|  | **B.** | **Evergreen Euonymus.** |
|  | **C.** | **Norfolk Island Pine.** |
|  | **D.** | **Weeping Fig.** |

|  |  |
| --- | --- |
| **75.** | **Timothy found an indoor plant for his mother. If the scientific name is Ficus benjamina, what plant is it?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **English Ivy** |
|  | **B.** | **Impatiens** |
|  | **C.** | **Peace Lily** |
|  | **D.** | **Weeping Fig** |

|  |  |
| --- | --- |
| **76.** | **At the back of his lot, Ben observed a large deciduous tree about sixty feet tall and forty feet wide that has narrow green leaves and small acorns. What is the name of this tree?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Eastern White Pine** |
|  | **B.** | **Leyland Cypress** |
|  | **C.** | **Red Maple** |
|  | **D.** | **Willow Oak** |

|  |  |
| --- | --- |
| **77.** | **Rachel has an evergreen ground cover with silvery-blue scale-type leaves. This plant is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Blue Rug Juniper.** |
|  | **B.** | **Hosta.** |
|  | **C.** | **Lirope.** |
|  | **D.** | **Prayer Plant.** |

|  |  |
| --- | --- |
| **78.** | **Jane has a small deciduous tree with deep pink double flowers about 2" across used as an accent plant. The tree is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Helleri Holly.** |
|  | **B.** | **Japanese Flowering Cherry.** |
|  | **C.** | **Norfolk Island Pine.** |
|  | **D.** | **Weeping Fig.** |

|  |  |
| --- | --- |
| **79.** | **Sam found a medium-size deciduous tree that has four trunks or stems with thin sheets of light color bark peeling off each trunk. What is the common name of this tree?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Japanese Barberry** |
|  | **B.** | **Red Maple** |
|  | **C.** | **River Birch** |
|  | **D.** | **Sweetgum** |

|  |  |
| --- | --- |
| **80.** | **At the local restaurant, Crystal saw a hanging basket with large green leaf-like growth that looked similar to a long vein down the middle. It had many little leaf-like structures called fronds, but it had no flowers or seeds. This plant is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Boston Fern.** |
|  | **B.** | **Glossy Abelia.** |
|  | **C.** | **Shasta Daisy.** |
|  | **D.** | **Wax Begonia.** |

|  |  |
| --- | --- |
| **81.** | **What is the scientific name for a Flowering Dogwood?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Acer rubrum** |
|  | **B.** | **Cornus florida** |
|  | **C.** | **Liriope muscari** |
|  | **D.** | **Targetes erecta** |

|  |  |
| --- | --- |
| **82.** | **On each side of a school parking lot, Glenn observed medium-size deciduous trees that have white flowers in spring and reddish purple leaves in autumn. They grow in a symmetrical shape with little or no pruning. These trees are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Border Forsythia.** |
|  | **B.** | **Bradford Pear.** |
|  | **C.** | **Dwarf Burford Holly.** |
|  | **D.** | **Japanese Aucuba.** |

|  |  |
| --- | --- |
| **83.** | **Hugo has a large evergreen shrub with dark green five inch long and two inch wide leaves growing in shade. It has many large flowers. On his last vacation to the North Carolina mountains, he saw some of this type shrub in the edge of the forests. Hugo's shrub is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Catawba Rhododendron.** |
|  | **B.** | **Leyland Cypress.** |
|  | **C.** | **Mungo Pine.** |
|  | **D.** | **Winged Euonymus.** |

|  |  |
| --- | --- |
| **84.** | **An old home has a large evergreen tree with big shiny leaves, white flowers that are 6" to 9" across and cone-like pods with red seeds. What is the common name of the tree?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Japanese Flowering Cherry** |
|  | **B.** | **Japanese Maple** |
|  | **C.** | **Southern Magnolia** |
|  | **D.** | **Sweetgum** |

|  |  |
| --- | --- |
| **85.** | **If Jody wants to learn more about the words used in scientific classification, he would study:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **French.** |
|  | **B.** | **Latin.** |
|  | **C.** | **Russian.** |
|  | **D.** | **Spanish.** |

|  |  |
| --- | --- |
| **86.** | **Morgan has an old tree near her home. The leaves are large and shiny. It has 6" to 9" white flowers, and it is messy under the tree because of the cone-like pods and bright red seeds. This tree is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Japanese Privet.** |
|  | **B.** | **Red Maple.** |
|  | **C.** | **Southern Magnolia.** |
|  | **D.** | **Wax Myrtle.** |

|  |  |
| --- | --- |
| **87.** | **The lawn at the local library has a large deciduous tree about fifty feet tall with leaves that have five to seven lobes and three or four bristle tips on each lobe that turn brilliant red in the autumn. It also has acorns. This tree is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Pin Oak.** |
|  | **B.** | **Red Maple.** |
|  | **C.** | **River Birch.** |
|  | **D.** | **Weeping Fig.** |

|  |  |
| --- | --- |
| **88.** | **What is the common name of an indoor plant with 18" long and ¾" wide leaves with a light greenish line down the midrib of the leaves and has plants developing at the tips of the shoots?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **English Ivy** |
|  | **B.** | **Spider Plant** |
|  | **C.** | **Wax Begonia** |
|  | **D.** | **Weeping Fig** |

|  |  |
| --- | --- |
| **89.** | **Elisha saw a large evergreen tree with clusters of needle-like leaves about four inches long. There were five leaves or needles per cluster. He saw some curving brown cones under the tree. What is the common name of this tree?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Azalea** |
|  | **B.** | **Eastern Red Bud** |
|  | **C.** | **Eastern White Pine** |
|  | **D.** | **Red Maple** |

|  |  |
| --- | --- |
| **90.** | **Patrick saw medium evergreen shrubs with reddish-green 1" long leaves and small clusters or groups of bugle-shaped white flowers that are 1" long. The common name for this plant is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Ajuga.** |
|  | **B.** | **Glossy Abelia.** |
|  | **C.** | **Ivy Leaf Geranium.** |
|  | **D.** | **Japanese Aucuba.** |

|  |  |
| --- | --- |
| **91.** | **The first word in the scientific name of a plant is the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Cultivar.** |
|  | **B.** | **Genus.** |
|  | **C.** | **Species.** |
|  | **D.** | **Variety.** |

|  |  |
| --- | --- |
| **92.** | **An interior plant with large variegated green and cream colored large leaves that are on a thick trunk is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Dumbcane.** |
|  | **B.** | **Japanese Barberry.** |
|  | **C.** | **Norfolk Island Pine.** |
|  | **D.** | **Winged Euonymus.** |

|  |  |
| --- | --- |
| **93.** | **A small deciduous specimen flowering tree that is usually crooked and has white flowers that are really bracts with a brownish color on the tip of each bract is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Catawba Rhododendron.** |
|  | **B.** | **Flowering Dogwood.** |
|  | **C.** | **Leyland Cypress.** |
|  | **D.** | **Pin Oak.** |

|  |  |
| --- | --- |
| **94.** | **Emily saw a medium size deciduous tree that had unusually thin brown bark peeling off several of its stems or trunks. The tree is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Catawba Rhododendron.** |
|  | **B.** | **River Birch.** |
|  | **C.** | **Wax Myrtle.** |
|  | **D.** | **Willow Oak.** |

|  |  |
| --- | --- |
| **95.** | **At the local nursery, Joel found some large evergreen shrubs with leaves that were 1½"to 3" long and about half as wide as their length. He thought it unusual that some shrubs had all green leaves, some had gold around the leaf margins and some had white around the leaf edges. These shrubs are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Eastern Red Bud.** |
|  | **B.** | **Evergreen Euonymus.** |
|  | **C.** | **Lirope.** |
|  | **D.** | **Mondo Grass.** |

|  |  |
| --- | --- |
| **96.** | **Neil found a large deciduous tree that has red flowers in early spring before the leaves appeared. In the summer, the leaves are dark green with a gray color under the leaves which have three to five lobes. The bark is light gray. The common name of this tree is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Crape Myrtle.** |
|  | **B.** | **Eastern White Pine.** |
|  | **C.** | **Flowering Dogwood.** |
|  | **D.** | **Red Maple.** |

|  |  |
| --- | --- |
| **97.** | **A large evergreen tree has four to eight inch brown curving cones and needle-like leaves four inches long with five needles per cluster. What is the name of this tree?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Eastern Red Bud** |
|  | **B.** | **Eastern White Pine** |
|  | **C.** | **Evergreen Euonymus** |
|  | **D.** | **Fosteria Holly** |

|  |  |
| --- | --- |
| **98.** | **A deciduous tree with acorns and narrow green leaves that grows about 60 feet high and forty feet wide is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Flowering Dogwood.** |
|  | **B.** | **Norfolk Island Pine.** |
|  | **C.** | **Sweetgum.** |
|  | **D.** | **Willow Oak.** |

|  |  |
| --- | --- |
| **99.** | **Matthew has small deciduous trees with white, pink, red and purple flowers on different trees. Except for the flower color, all the trees look the same including the smooth bark. The trees have many flowers all summer and early fall. These trees are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Crape Myrtle.** |
|  | **B.** | **Evergreen Euonymus.** |
|  | **C.** | **Prayer Plant.** |
|  | **D.** | **Red Maple.** |

|  |  |
| --- | --- |
| **100.** | **An indoor flowering plant grown for hanging baskets and potted plants and has red, white or pink flowers and green leaves that usually have long petioles and is popular for Mother's Day is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Boston Fern.** |
|  | **B.** | **Catawba Rhododendron.** |
|  | **C.** | **Geranium.** |
|  | **D.** | **Japanese Flowering Cherry.** |

|  |  |
| --- | --- |
| **101.** | **David's neighbor has a large evergreen shrub with many large flowers and dark green leaves with smooth margins. The leaves are about 5" long and 2" wide. He has seen plants similar to this growing in shade beside roads in the mountains of North Carolina. This shrub is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Bar Harbor Juniper.** |
|  | **B.** | **Catawba Rhododendron.** |
|  | **C.** | **Japanese Privet.** |
|  | **D.** | **River Birch.** |

|  |  |
| --- | --- |
| **102.** | **A large evergreen tree about 50 feet tall with scale-type leaves and short ½" cones is a specimen plant at church. What is the common name for this tree that looks similar to a cedar tree?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Eastern Red Bud** |
|  | **B.** | **Leyland Cypress** |
|  | **C.** | **Pin Oak** |
|  | **D.** | **Winged Euonymus** |

|  |  |
| --- | --- |
| **103.** | **Lauren has a tall tree near her home. The deciduous tree has dark green star shaped leaves, and it has many prickly balls or burrs on the ground. What is the common name of this tree?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Eastern Red Bud** |
|  | **B.** | **Eastern White Pine** |
|  | **C.** | **River Birch** |
|  | **D.** | **Sweetgum** |

|  |  |
| --- | --- |
| **104.** | **Travis visited his old ball field and found a large evergreen shrub with dark green leaves that are 3" long and 1½" wide with raised veins underneath. It has ¼" dark purple berries with a hard seed inside. This shrub is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Border Forsythia.** |
|  | **B.** | **Day Lily.** |
|  | **C.** | **Japanese Privet.** |
|  | **D.** | **Sprengeri Fern.** |

|  |  |
| --- | --- |
| **105.** | **A large deciduous tree with star-shaped leaves that turn yellow, orange, red and purple in the fall and also has burrs or prickly balls is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Crape Myrtle.** |
|  | **B.** | **Norfolk Island Pine.** |
|  | **C.** | **Sweetgum** |
|  | **D.** | **Winged Euonymus.** |

|  |  |
| --- | --- |
| **106.** | **In the scientific name Ficus elastica ‘Decora' which is a Decora Rubber Plant, the word ‘Decora' is the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Genus.** |
|  | **B.** | **Kingdom.** |
|  | **C.** | **Species.** |
|  | **D.** | **Variety.** |

|  |  |
| --- | --- |
| **107.** | **The scientific name for an azalea is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Cornus florida.** |
|  | **B.** | **Fiscus benjamina.** |
|  | **C.** | **Rhodendron kiusianum.** |
|  | **D.** | **Saintpaulia ionantha.** |

|  |  |
| --- | --- |
| **108.** | **Robin saw some medium sized deciduous shrubs near the school sidewalks. The plants have 1" long leaves, small spines at the leaf nodes and ¼" to ½" red berries. These shrubs are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Helleri Holly.** |
|  | **B.** | **Japanese Barberry.** |
|  | **C.** | **Pin Oak.** |
|  | **D.** | **Prayer Plant.** |

|  |  |
| --- | --- |
| **109.** | **Wayne has a large deciduous shrub with many bright yellow flowers in very early spring. It is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Border Forsythia.** |
|  | **B.** | **Mungo Pine.** |
|  | **C.** | **Parlor Ivy.** |
|  | **D.** | **Shasta Daisy.** |

|  |  |
| --- | --- |
| **110.** | **If Lynwood saw a plant with the word "Pinus" in the scientific name, what kind of plant would it be?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Maple** |
|  | **B.** | **Pine** |
|  | **C.** | **Oak** |
|  | **D.** | **Sweetgum** |

|  |  |
| --- | --- |
| **111.** | **At the border of his lot, Ken observed a medium-size deciduous tree with flowers that also has 1" to 2" diameter fruit and green, red or purple leaves in summer. The tree is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Flowering Crabapple.** |
|  | **B.** | **Mungo Pine.** |
|  | **C.** | **Pin Oak.** |
|  | **D.** | **Willow Oak.** |

|  |  |
| --- | --- |
| **112.** | **Jan saw a tree with the scientific name Acer palmatum. What is the plant's common name?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Eastern White Pine** |
|  | **B.** | **Flowering Dogwood** |
|  | **C.** | **Japanese Maple** |
|  | **D.** | **Pin Oak** |

|  |  |
| --- | --- |
| **113.** | **Evan has a dwarf evergreen shrub about two feet high and two feet wide with dark green mature leaves about ½" to 1" long. New spring growth is light green and the stems are a gray color. This shrub is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Bradford Pear.** |
|  | **B.** | **Dwarf Yaupon.** |
|  | **C.** | **Japanese Maple.** |
|  | **D.** | **Shore Juniper.** |

|  |  |
| --- | --- |
| **114.** | **Alexis has a large evergreen shrub with yellowish-green leaves about 2" to 3" long with serrated margins near the leaf tips. It has clusters of small waxy-gray berries. This shrub is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Bar Harbor Juniper.** |
|  | **B.** | **Glossy Abelia.** |
|  | **C.** | **Wax Myrtle.** |
|  | **D.** | **Willow Oak.** |

|  |  |
| --- | --- |
| **115.** | **Emily saw a plant hanging from a container in her dentist's office, and it had new plants developing at the shoot tips. The 18" long and ¾" wide leaves were green with a light greenish-yellow line down the middle of the leaves. What is the name of this plant?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Shore Juniper** |
|  | **B.** | **Spider Plant** |
|  | **C.** | **Swedish Ivy** |
|  | **D.** | **Weeping Fig** |

|  |  |
| --- | --- |
| **116.** | **Lindsey has some plants at her florist that she bought wholesale to sell at Christmas. Most of the bracts are dark red, but she also has some pink and some white ones. The flowers are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Boston Fern.** |
|  | **B.** | **Fosteria Holly.** |
|  | **C.** | **Poinsettia.** |
|  | **D.** | **Spider Plant.** |

|  |  |
| --- | --- |
| **117.** | **In a scientific name, cv. means:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Center vein.** |
|  | **B.** | **Color variegated.** |
|  | **C.** | **Century five.** |
|  | **D.** | **Cultivar.** |

|  |  |
| --- | --- |
| **118.** | **April has some indoor Christmas season plants with bracts or modified leaves that are red, pink or white on different plants. What is the name of these plants?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Florist Chrysanthemum** |
|  | **B.** | **Geranium** |
|  | **C.** | **Poinsettia** |
|  | **D.** | **Spider Plant** |

|  |  |
| --- | --- |
| **119.** | **Dwarf Yaupon, Helleri Holly and Dwarf Burford Holly are all in the genus called:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Ficus.** |
|  | **B.** | **Ilex.** |
|  | **C.** | **Juniperus.** |
|  | **D.** | **Prunus.** |

|  |  |
| --- | --- |
| **120.** | **Marcus has a medium size deciduous shrub with dark green leaves 1" to 2" long that turn a glowing brilliant red in the fall. It is a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Blue Harbor Juniper.** |
|  | **B.** | **Helleri Holly.** |
|  | **C.** | **Spider Plant.** |
|  | **D.** | **Winged Euonymus.** |

|  |  |
| --- | --- |
| **121.** | **Spencer has deciduous ground cover that has 3" wide and 7" long leaves that grow in a whorled pattern. Some leaves are solid dark green and some are green with yellowish or white color mixed with green. These plants are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Azalea.** |
|  | **B.** | **Hosta.** |
|  | **C.** | **Impatiens.** |
|  | **D.** | **Wax Begonia.** |

**4.01**

|  |  |
| --- | --- |
| **122.** | **The plant process by which all food is manufactured is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Absorption.** |
|  | **B.** | **Photosynthesis.** |
|  | **C.** | **Respiration.** |
|  | **D.** | **Translocation.** |

|  |  |
| --- | --- |
| **123.** | **Vegetative growth is the growth of:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Flowers and fruits.** |
|  | **B.** | **Fruits and roots.** |
|  | **C.** | **Leaves, stems and roots.** |
|  | **D.** | **Roots, seeds and flowers.** |

|  |  |
| --- | --- |
| **124.** | **The byproduct of photosynthesis is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Carbon dioxide.** |
|  | **B.** | **Nitrogen.** |
|  | **C.** | **Oxygen.** |
|  | **D.** | **Water.** |

|  |  |
| --- | --- |
| **125.** | **When compared to the amount of oxygen produced in the process of photosynthesis, the amount of oxygen used in plant respiration is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **About the same.** |
|  | **B.** | **Less.** |
|  | **C.** | **More.** |
|  | **D.** | **Much more.** |

|  |  |
| --- | --- |
| **126.** | **The chemical formula for photosynthesis is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **6CO²+ 6H20 →C6H12O6 + 6O2.** |
|  | **B.** | **C6H12O6 + 6O2 →6CO2 + 6H2O.** |
|  | **C.** | **NH4NO3 + 4H2O → 6NaCl + 4H2O.** |
|  | **D.** | **4P2O5 + 6CO2 →6H2O + 4CaCO3.** |

|  |  |
| --- | --- |
| **127.** | **Plant roots take water from the soil through the process of:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Absorption.** |
|  | **B.** | **Photosynthesis.** |
|  | **C.** | **Reproduction.** |
|  | **D.** | **Respiration.** |

|  |  |
| --- | --- |
| **128.** | **In which stage of growth do plants rest or grow very little?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Dormant** |
|  | **B.** | **Intermediate** |
|  | **C.** | **Juvenile** |
|  | **D.** | **Reproductive** |

|  |  |
| --- | --- |
| **129.** | **When a plant first begins growing from a seed, the stage of growth is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Dormant.** |
|  | **B.** | **Juvenile.** |
|  | **C.** | **Mature.** |
|  | **D.** | **Reproductive.** |

|  |  |
| --- | --- |
| **130.** | **The process of moving synthesized and absorbed food and nutrients within the plant is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Photosynthesis.** |
|  | **B.** | **Respiration.** |
|  | **C.** | **Reproduction.** |
|  | **D.** | **Translocation.** |

|  |  |
| --- | --- |
| **131.** | **Water loss from leaf surface through evaporation is the plant process called:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Absorption.** |
|  | **B.** | **Photosynthesis.** |
|  | **C.** | **Respiration.** |
|  | **D.** | **Transpiration.** |

|  |  |
| --- | --- |
| **132.** | **The MAIN product of photosynthesis is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Carbon dioxide.** |
|  | **B.** | **Nitrogen.** |
|  | **C.** | **Sugar.** |
|  | **D.** | **Water.** |

**4.02**

|  |  |
| --- | --- |
| **133.** | **Before Scott places the tip cuttings in a rooting hormone, he dips them in what to prevent rot?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Fungicide** |
|  | **B.** | **Insecticide** |
|  | **C.** | **Nematicide** |
|  | **D.** | **Pesticide** |

|  |  |
| --- | --- |
| **134.** | **Renee needs about 1,000 petunia plants. If seed germination rate is 50%, which is the minimum number of seeds she should sow?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **50** |
|  | **B.** | **1,000** |
|  | **C.** | **1,200** |
|  | **D.** | **2,000** |

|  |  |
| --- | --- |
| **135.** | **Tracie wants to reduce stress on greenhouse produced seedlings at transplanting time. Before they are removed from the greenhouse, they should be:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Fertilized more.** |
|  | **B.** | **Hardened-off.** |
|  | **C.** | **Misted often.** |
|  | **D.** | **Watered more.** |

|  |  |
| --- | --- |
| **136.** | **Janet wants to use stem cuttings to propagate her prize-winning azaleas.  What is the BEST time of day for Janet to take the cuttings from her azaleas?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Early evening** |
|  | **B.** | **Early morning** |
|  | **C.** | **Late afternoon** |
|  | **D.** | **Mid-day** |

|  |  |
| --- | --- |
| **137.** | **Dave has a bag of fescue that has a seed germination rate of 80%.  He can expect:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **20 out of 80 seeds to germinate.** |
|  | **B.** | **20 out of 100 seeds to germinate.** |
|  | **C.** | **80 out of 100 seeds to germinate.** |
|  | **D.** | **All seeds to germinate.** |

|  |  |
| --- | --- |
| **138.** | **Homer is careful to study the temperature, moisture and seed viability for the plants he plans to grow.  These are factors that affect:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Germination rates.** |
|  | **B.** | **Hardwood cuttings.** |
|  | **C.** | **Softwood cuttings.** |
|  | **D.** | **Tree grafts.** |

|  |  |
| --- | --- |
| **139.** | **Victor wants to join a new variety of pecan tree to some rootstock he has grown from seeds. Which propagation method should he use?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Grafting** |
|  | **B.** | **Hardwood cuttings** |
|  | **C.** | **Layering** |
|  | **D.** | **Softwood cuttings** |

|  |  |
| --- | --- |
| **140.** | **Samantha is cutting the iris rhizome in sections.  This method of asexual propagation in which plants are broken or cut into smaller pieces or clumps and are planted to form new plants is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Division.** |
|  | **B.** | **Grafting.** |
|  | **C.** | **Layering.** |
|  | **D.** | **Seeding.** |

|  |  |
| --- | --- |
| **141.** | **Jenny needs to construct some beds to use for rooting azalea cuttings. How deep should the rooting media be?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **1 inch** |
|  | **B.** | **4 inches** |
|  | **C.** | **12 inches** |
|  | **D.** | **24 inches** |

|  |  |
| --- | --- |
| **142.** | **Neil is planning to sexually propagate some plants. Which plant parts should he purchase?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Leaves** |
|  | **B.** | **Roots** |
|  | **C.** | **Seeds** |
|  | **D.** | **Stems** |

|  |  |
| --- | --- |
| **143.** | **Caroline is careful to use tissue culture in laboratory conditions that are aseptic.  Therefore, the laboratory environment is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Dirty.** |
|  | **B.** | **Humid.** |
|  | **C.** | **Pretty.** |
|  | **D.** | **Sterile.** |

|  |  |
| --- | --- |
| **144.** | **Andrew has selected a unique azalea plant. The propagation method that he can use to rapidly increase the number of identical plants is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Grafting.** |
|  | **B.** | **Leaf cuttings.** |
|  | **C.** | **Seeding** |
|  | **D.** | **Tissue culture.** |

|  |  |
| --- | --- |
| **145.** | **If Megan is using the biotechnology process of cloning, she is trying to:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Change the genetic structure of DNA.** |
|  | **B.** | **Genetically engineer bacteria.** |
|  | **C.** | **Make an exact copy of a plant.** |
|  | **D.** | **Make a plant become resistant to drought.** |

|  |  |
| --- | --- |
| **146.** | **Christy enjoys trench layering her prize winning azalea.  One advantage she likes of trench layering is that:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Each exposed section will contain a new bud.** |
|  | **B.** | **New plants will form at each node along the stem.** |
|  | **C.** | **Only one inch of bark has to be removed.** |
|  | **D.** | **Soil has to be mounded up around the plant.** |

|  |  |
| --- | --- |
| **147.** | **Jacob learns a disadvantage of propagating using cuttings is that when cuttings are removed from the parent plant, the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Cuttings' absorption process stops.** |
|  | **B.** | **Cuttings are cut off from their source of water.** |
|  | **C.** | **Parent plant needs more light.** |
|  | **D.** | **Parent plant needs additional fertilizer.** |

|  |  |
| --- | --- |
| **148.** | **Jennifer is using "Rootone" on her poinsettia cuttings.  She knows that an advantage of using  hormones on cuttings is that they:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Aid in photosynthesis.** |
|  | **B.** | **Decrease water needs.** |
|  | **C.** | **Keep the leaves from dropping.** |
|  | **D.** | **Speed root development.** |

|  |  |
| --- | --- |
| **149.** | **Vickie is making leaf cuttings. She must be certain that she cuts the leaf:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Margin.** |
|  | **B.** | **Petiole.** |
|  | **C.** | **Stomate.** |
|  | **D.** | **Vein.** |

|  |  |
| --- | --- |
| **150.** | **Hannah is hardening-off some tomatoes starting in the greenhouse.  Which will she reduce to hardening-off her plants?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Fertilizer and air** |
|  | **B.** | **Humidity and water** |
|  | **C.** | **Lime and phosphate** |
|  | **D.** | **Soil and fertilizer** |

|  |  |
| --- | --- |
| **151.** | **Chris is interested in producing the most new plants in the shortest time period.  What is the best propagation method for him to accomplish his goal?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Budding** |
|  | **B.** | **Cuttings** |
|  | **C.** | **Grafting** |
|  | **D.** | **Tissue culture** |

|  |  |
| --- | --- |
| **152.** | **Callie is propagating her African violet by taking leaf cuttings.  She is confident that leaf cuttings will work because she is using:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Axillary buds.** |
|  | **B.** | **Herbaceous plants.** |
|  | **C.** | **Stem tissue.** |
|  | **D.** | **Woody plants.** |

|  |  |
| --- | --- |
| **153.** | **Jamie has a tray of marigold she starts from seed.  She transplants the seedlings from the seedling flat to cell packs when the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **First mature roots appear.** |
|  | **B.** | **First true leaves are on the plant.** |
|  | **C.** | **Plants are two weeks old.** |
|  | **D.** | **Seedlings are 6 inches tall.** |

**5.00**

|  |  |  |
| --- | --- | --- |
| **154.** |  | **Suzie likes to use a commercial blend of horticulture soil. She can depend on the pH of the product being:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Acidic.** |
|  | **B.** | **Alkaline.** |
|  | **C.** | **Basic.** |
|  | **D.** | **Neutral.** |

|  |  |
| --- | --- |
| **155.** | **Which is the BEST growing media if an INORGANIC media is desired?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Bark** |
|  | **B.** | **Compost** |
|  | **C.** | **Peat moss** |
|  | **D.** | **Vermiculite** |

|  |  |
| --- | --- |
| **156.** | **If Vijay wishes to add weight to keep his gallon nursery stock from blowing over, what should he add to his soilless mix at planting?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Bark** |
|  | **B.** | **Peat moss** |
|  | **C.** | **Perlite** |
|  | **D.** | **Vermiculite** |

|  |  |
| --- | --- |
| **157.** | **Which is a better ORGANIC material for use in a growing media?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Bark** |
|  | **B.** | **Perlite** |
|  | **C.** | **Styrofoam beads** |
|  | **D.** | **Vermiculite** |

|  |  |
| --- | --- |
| **158.** | **Marcy mixes perlite in her soiless mix.  What is perlite?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Bark from a pecan tree** |
|  | **B.** | **Dead plant material** |
|  | **C.** | **Natural volcanic rock** |
|  | **D.** | **Product of seaweed** |

|  |  |
| --- | --- |
| **159.** | **While the pH of MOST commercial horticulture soiless mixes is neutral, the pH of bark, peat moss and sphagnum moss is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Acid.** |
|  | **B.** | **Alkaline.** |
|  | **C.** | **Basic.** |
|  | **D.** | **Neutral.** |

|  |  |
| --- | --- |
| **160.** | **The high carbon to nitrogen ratio of non- decomposed sawdust and wood shavings affects nitrogen in growing media by:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Acting as a fertilizer.** |
|  | **B.** | **Increasing availability for plant use.** |
|  | **C.** | **Making it unavailable for plant use.** |
|  | **D.** | **Stimulating plant growth.** |

|  |  |
| --- | --- |
| **161.** | **The pH test on a soil sample determines the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Acidity or alkalinity.** |
|  | **B.** | **Air and water movement.** |
|  | **C.** | **Amount of nitrogen.** |
|  | **D.** | **Salinity or salt content.** |

|  |  |
| --- | --- |
| **162.** | **Which is the MOST likely effect of adding perlite to the growing media?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Decreases drainage** |
|  | **B.** | **Increases drainage** |
|  | **C.** | **Increases weight** |
|  | **D.** | **Makes media acid** |

|  |  |
| --- | --- |
| **163.** | **Perlite and vermiculite are MOST likely examples of:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Hydroponics.** |
|  | **B.** | **Organic growing media.** |
|  | **C.** | **Soil growing media.** |
|  | **D.** | **Soilless growing media.** |

|  |  |
| --- | --- |
| **164.** | **Which is a light-weight inorganic mica mineral capable of absorbing a large amount of water in growing media?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Bark.** |
|  | **B.** | **Compost.** |
|  | **C.** | **Leaf mold.** |
|  | **D.** | **Vermiculite.** |

|  |  |
| --- | --- |
| **165.** | **Pedro likes to add compost to condition his soil.  What is compost?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Clayey soil** |
|  | **B.** | **Decayed organic matter** |
|  | **C.** | **Vermiculite** |
|  | **D.** | **Volcanic rock** |

|  |  |
| --- | --- |
| **166.** | **Which is the BEST growing media if an INORGANIC media is desired?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Leaf mold** |
|  | **B.** | **Perlite** |
|  | **C.** | **Sawdust** |
|  | **D.** | **Wood shavings** |

|  |  |
| --- | --- |
| **167.** | **A soil test report with a pH of 7.2 is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Extremely acid.** |
|  | **B.** | **Extremely alkaline.** |
|  | **C.** | **Mildly acid.** |
|  | **D.** | **Mildly alkaline.** |

|  |  |
| --- | --- |
| **168.** | **Zoey prefers to use a soiless horticultural mix for his greenhouse because the mix:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Comes from the garden.** |
|  | **B.** | **Has a lot of weight.** |
|  | **C.** | **Is cheap.** |
|  | **D.** | **Is sterile.** |

|  |  |
| --- | --- |
| **169.** | **Wendy has problems getting flowers to grow in one of her flower beds. If she wants to send a soil sample to the laboratory to get recommendations to correct her problem, she should take cores or slices of soil from:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **All the flower beds.** |
|  | **B.** | **All the flower beds except problem one.** |
|  | **C.** | **The entire lawn.** |
|  | **D.** | **The problem flower bed.** |

|  |  |
| --- | --- |
| **170.** | **The MOST desirable soil for non-container outdoor plant production is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Clay.** |
|  | **B.** | **Loam.** |
|  | **C.** | **Sand.** |
|  | **D.** | **Silt.** |

|  |  |
| --- | --- |
| **171.** | **Rory is studying the pH scale.  What number represents neutral?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **3** |
|  | **B.** | **5** |
|  | **C.** | **7** |
|  | **D.** | **9** |

|  |  |
| --- | --- |
| **172.** | **What is the percentage of solid soil particles in an ideal soil?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **5.** |
|  | **B.** | **20.** |
|  | **C.** | **50.** |
|  | **D.** | **90.** |

|  |  |
| --- | --- |
| **173.** | **A soil test report will include:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Cost of fertilizer.** |
|  | **B.** | **Cost of lime.** |
|  | **C.** | **Recommended planting time.** |
|  | **D.** | **Suggested fertilizer rate.** |

|  |  |
| --- | --- |
| **174.** | **Which is a characteristic of sandy textured soils?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **High moisture-holding capacity** |
|  | **B.** | **High nutrient-holding capacity** |
|  | **C.** | **Low moisture-holding capacity** |
|  | **D.** | **Small packed together soil particles** |

|  |  |
| --- | --- |
| **175.** | **When measuring pH, the higher the soil pH number, the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Less alkaline.** |
|  | **B.** | **More acidic.** |
|  | **C.** | **More alkaline.** |
|  | **D.** | **More neutral.** |

|  |  |
| --- | --- |
| **176.** | **Compared to other layers of a typical soil profile, the amount of organic matter in the O horizon is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **About the same.** |
|  | **B.** | **Less.** |
|  | **C.** | **More.** |
|  | **D.** | **None.** |

|  |  |
| --- | --- |
| **177.** | **Which pH reading is acid?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **3.5** |
|  | **B.** | **7.0** |
|  | **C.** | **8.0** |
|  | **D.** | **9.5** |

|  |  |
| --- | --- |
| **178.** | **When indicating or measuring pH, the lower the pH number, the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Less acid.** |
|  | **B.** | **More acidic.** |
|  | **C.** | **More alkaline.** |
|  | **D.** | **More neutral.** |

|  |  |
| --- | --- |
| **179.** | **Which pH reading is alkaline?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **1.0** |
|  | **B.** | **3.0** |
|  | **C.** | **6.0** |
|  | **D.** | **9.0** |

|  |  |
| --- | --- |
| **180.** | **A typical soil profile has at LEAST three layers in this order starting at the soil surface:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Bedrock, subsoil and topsoil.** |
|  | **B.** | **Subsoil, topsoil and bedrock.** |
|  | **C.** | **Topsoil, bedrock and subsoil.** |
|  | **D.** | **Topsoil, subsoil and bedrock.** |

|  |  |
| --- | --- |
| **181.** | **Mark needs to take some soil samples from his lawn and some from a field where he grows vegetables. Compared to the field samples, his samples from the lawn should be taken:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **About 2 inches deeper.** |
|  | **B.** | **About 8 inches deeper.** |
|  | **C.** | **About 2 inches shallower.** |
|  | **D.** | **At the same depth.** |

|  |  |
| --- | --- |
| **182.** | **Clayey textured soils are characterized by:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Being loose and single grain.** |
|  | **B.** | **Having high moisture-holding capacity.** |
|  | **C.** | **Having large soil particles.** |
|  | **D.** | **Having low moisture-holding capacity.** |

|  |  |
| --- | --- |
| **183.** | **Which soil particles are the SMALLEST?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Clay** |
|  | **B.** | **Rocks** |
|  | **C.** | **Sand** |
|  | **D.** | **Silt** |

|  |  |
| --- | --- |
| **184.** | **Most flowers, shrubs and lawn grasses grow best in a pH ranging from:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **1.0 to 2.5.** |
|  | **B.** | **3.0 to 5.0.** |
|  | **C.** | **5.5 to 7.0.** |
|  | **D.** | **7.5 to 9.0.** |

|  |  |
| --- | --- |
| **185.** | **What is the texture of soils that have about equal parts of sand, clay and silt?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Clayey** |
|  | **B.** | **Loamy** |
|  | **C.** | **Sandy** |
|  | **D.** | **Silty** |

**6.00**

|  |  |  |  |
| --- | --- | --- | --- |
| **186.** |  |  | **Which elements do plants need in the SMALLEST amounts?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Macronutrients** |
|  | **B.** | **Micronutrients** |
|  | **C.** | **Primary elements** |
|  | **D.** | **Secondary elements** |

|  |  |
| --- | --- |
| **187.** | **Suzie selects a fertilizer that will promote good green growth for the leaves and stems of her houseplants.  The fertilizer will MOST likely contain the primary element:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Chlorine.** |
|  | **B.** | **Copper.** |
|  | **C.** | **Nitrogen.** |
|  | **D.** | **Zinc.** |

|  |  |
| --- | --- |
| **188.** | **If a plant has a phosphorus deficiency, a symptom that usually appears is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Cupped or curled leaf tips.** |
|  | **B.** | **Purplish color in older leaves.** |
|  | **C.** | **Rotting fruit on young plants.** |
|  | **D.** | **Yellow leaves with green veins.** |

|  |  |
| --- | --- |
| **189.** | **Which of these groups are micronutrients?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Carbon, hydrogen and oxygen** |
|  | **B.** | **Copper, manganese and zinc** |
|  | **C.** | **Nitrogen, phosphorus and potassium** |
|  | **D.** | **Sulfur, magnesium and water** |

|  |  |
| --- | --- |
| **190.** | **Almost every nutrient deficiency causes a plant to:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Have dark green leaves.** |
|  | **B.** | **Have purplish color leaves.** |
|  | **C.** | **Look unhealthy.** |
|  | **D.** | **Wilt early in the morning.** |

|  |  |
| --- | --- |
| **191.** | **Calcium, magnesium and sulfur are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Macronutrients.** |
|  | **B.** | **Micronutrients.** |
|  | **C.** | **Primary elements.** |
|  | **D.** | **Secondary elements.** |

|  |  |
| --- | --- |
| **192.** | **A nutrient deficiency occurs when a plant is getting:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **All the nutrients needed to live and grow.** |
|  | **B.** | **Enough light to make food for itself.** |
|  | **C.** | **Less nutrients than it needs to live and grow.** |
|  | **D.** | **Too many nutrients or too much of a nutrient.** |

|  |  |
| --- | --- |
| **193.** | **The three primary nutrients necessary for plant growth are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Boron, calcium and iron.** |
|  | **B.** | **Chlorine, sulfur and zinc.** |
|  | **C.** | **Magnesium, manganese and molybdenum.** |
|  | **D.** | **Nitrogen, phosphorus and potassium.** |

|  |  |
| --- | --- |
| **194.** | **Which is MOST true of macronutrients?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **All six are listed on the fertilizer label** |
|  | **B.** | **Present in the soil in the smallest amounts** |
|  | **C.** | **Used by the plants in large amounts** |
|  | **D.** | **Used by the plants in small amounts** |

|  |  |
| --- | --- |
| **195.** | **What is the function of nitrogen in plant growth?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Make seeds** |
|  | **B.** | **Produce healthy green color** |
|  | **C.** | **Produce a yellow color in leaves** |
|  | **D.** | **Stimulate early root formation** |

|  |  |
| --- | --- |
| **196.** | **When a plant has yellow leaves caused by a nutrient deficiency, the condition is called:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Chlorosis.** |
|  | **B.** | **Defoliation.** |
|  | **C.** | **Necrosis.** |
|  | **D.** | **Respiration.** |

|  |  |
| --- | --- |
| **197.** | **Which nutrient do plants need in the GREATEST quantity?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Calcium** |
|  | **B.** | **Nitrogen** |
|  | **C.** | **Sulfur** |
|  | **D.** | **Zinc** |

|  |  |
| --- | --- |
| **198.** | **Sue uses a fertilizer that promotes early formation and growth of roots and increases the plant's hardiness and disease resistance vigor. Her fertilizer will MOST likely contain what primary element?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Boron** |
|  | **B.** | **Chlorine** |
|  | **C.** | **Phosphorus** |
|  | **D.** | **Zinc** |

|  |  |
| --- | --- |
| **199.** | **If Jackie wants to combine watering and fertilizing in her commercial greenhouse, she would need to use a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Drop-type spreader.** |
|  | **B.** | **Fertilizer injector.** |
|  | **C.** | **Handheld rotary spreader.** |
|  | **D.** | **Sprinkling can.** |

|  |  |
| --- | --- |
| **200.** | **Most commercial chemical fertilizers are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Animal matter fertilizers.** |
|  | **B.** | **Incomplete fertilizers.** |
|  | **C.** | **Inorganic fertilizers.** |
|  | **D.** | **Organic fertilizers.** |

|  |  |
| --- | --- |
| **201.** | **The analysis of a fertilizer shows the percent by weight of:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Boron, calcium and water.** |
|  | **B.** | **Carbon, hydrogen and oxygen.** |
|  | **C.** | **Nitrogen, phosphorus and potassium.** |
|  | **D.** | **Zinc, sulfur and iron.** |

|  |  |
| --- | --- |
| **202.** | **Bill uses a fertilizer spreader to cover his entire nursery soil. The fertilization method he is using to spread or apply the granular fertilizer is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Banding.** |
|  | **B.** | **Broadcasting.** |
|  | **C.** | **Foliar spraying.** |
|  | **D.** | **Sidedressing.** |

|  |  |
| --- | --- |
| **203.** | **Which is MOST true of soluble fertilizers?  Soluble fertilizers dissolve in:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Air.** |
|  | **B.** | **Ammonia.** |
|  | **C.** | **Hydrogen.** |
|  | **D.** | **Water.** |

|  |  |
| --- | --- |
| **204.** | **Sandi needs to drill holes about fifteen inches deep, put granular fertilizer in the holes and cover the holes under her peach trees. Which fertilization method does she need to use?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Banding** |
|  | **B.** | **Foliar spraying** |
|  | **C.** | **Perforating** |
|  | **D.** | **Sidedressing** |

|  |  |
| --- | --- |
| **205.** | **Neil is placing a band of fertilizer on each side of seeds he is sowing. He needs to be certain that the seeds are not in the fertilizer and that the fertilizer is NOT directly below the seeds to prevent:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Damage to plants.** |
|  | **B.** | **Nutrient deficiencies.** |
|  | **C.** | **Rapid growth.** |
|  | **D.** | **Water absorption.** |

|  |  |
| --- | --- |
| **206.** | **Which is the analysis of an incomplete fertilizer?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **5-10-10** |
|  | **B.** | **10-10-10** |
|  | **C.** | **15-0-14** |
|  | **D.** | **20-10-20** |

|  |  |
| --- | --- |
| **207.** | **Nina wants to fertilize and irrigate her plants at the same time. Which fertilization method should she use?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Banding** |
|  | **B.** | **Broadcasting** |
|  | **C.** | **Fertigation** |
|  | **D.** | **Perforating** |

|  |  |
| --- | --- |
| **208.** | **Ginger sees symptoms of a micronutrient deficiency in the bedding plants. Which fertilization method should she use to quickly address this problem?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Banding** |
|  | **B.** | **Foliar spraying** |
|  | **C.** | **Perforating** |
|  | **D.** | **Topdressing** |

|  |  |
| --- | --- |
| **209.** | **An advantage of organic fertilizer is that it:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Improves the physical condition of soil.** |
|  | **B.** | **Is sterile.** |
|  | **C.** | **Leaches quickly through the soil.** |
|  | **D.** | **Releases into the soil rapidly.** |

**7.00**

|  |  |  |
| --- | --- | --- |
| **210.** |  | **Lee and Julia just bought a town home with limited garden space.  What would be the BEST type of garden for Lee and Julia?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Container** |
|  | **B.** | **Flat bed** |
|  | **C.** | **Roof top** |
|  | **D.** | **Vertical** |

|  |  |
| --- | --- |
| **211.** | **On her terrace, Donna created a garden in a washtub.  What type of garden structure did she use?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Container** |
|  | **B.** | **Raised bed** |
|  | **C.** | **Roof top** |
|  | **D.** | **Vertical** |

|  |  |
| --- | --- |
| **212.** | **Cathy and Chris incorporated windbreaks in their garden design.  What type of garden structure did they use?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Container** |
|  | **B.** | **Raised bed** |
|  | **C.** | **Roof top** |
|  | **D.** | **Vertical** |

|  |  |
| --- | --- |
| **213.** | **Juan and Maria want to plant a vertical garden.  What should they do prior to planting their garden?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Check the local ordinances for rules and regulations** |
|  | **B.** | **Incorporate windbreaks into the garden design** |
|  | **C.** | **Make it accessible for the elderly or handicapped** |
|  | **D.** | **Watch the sun movement before planting** |

|  |  |
| --- | --- |
| **214.** | **When David and Vicki constructed their garden, they wanted a garden that would not take up space in their yard, use as little weight as possible and incorporate windbreaks into the garden design.  What type of garden structure did they use?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Container** |
|  | **B.** | **Raised bed** |
|  | **C.** | **Roof top** |
|  | **D.** | **Vertical** |

|  |  |
| --- | --- |
| **215.** | **Walt built a garden structure that was easy for his elderly father to access and convenient to water and harvest.  What type of garden structure did he build?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Container** |
|  | **B.** | **Raised bed** |
|  | **C.** | **Roof top** |
|  | **D.** | **Vertical** |

|  |  |
| --- | --- |
| **216.** | **The local school for handicapped children wants to establish a garden.  Which would be the BEST type for the school?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Container** |
|  | **B.** | **Flat bed** |
|  | **C.** | **Raised bed** |
|  | **D.** | **Roof top** |

|  |  |
| --- | --- |
| **217.** | **Ruthie created a garden on her deck using a whiskey barrel.  What type of garden structure did she use?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Container** |
|  | **B.** | **Raised bed** |
|  | **C.** | **Roof top** |
|  | **D.** | **Vertical** |

|  |  |
| --- | --- |
| **218.** | **Jamal is researching gardening.  He has decided the one that fits his situation best is one he can sit on concrete and is typically made of wood.  What type of structure would he use?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Container** |
|  | **B.** | **Flat bed** |
|  | **C.** | **Raised bed** |
|  | **D.** | **Roof top** |

|  |  |
| --- | --- |
| **219.** | **Carl is researching gardening.  He has decided the one that best fits his situation is the most traditional way to plant; rows with a two foot gap between each row.  The BEST type of garden structure for Carl to use is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Container.** |
|  | **B.** | **Flat bed.** |
|  | **C.** | **Raised bed.** |
|  | **D.** | **Roof top.** |

|  |  |
| --- | --- |
| **220.** | **What type of gardening structure would the Carpenters use to save valuable garden space?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Container** |
|  | **B.** | **Raised bed** |
|  | **C.** | **Roof top** |
|  | **D.** | **Vertical** |

|  |  |
| --- | --- |
| **221.** | **While checking his garden, Leon noticed insects on the underside of the leaves.  He should:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Add more fertilizer to this garden.** |
|  | **B.** | **Ignore the problem.** |
|  | **C.** | **Practice non-chemical methods to control pests.** |
|  | **D.** | **Water his garden more.** |

|  |  |
| --- | --- |
| **222.** | **Alan wants to plant cool season seeds in his garden.  He should plant:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Beans.** |
|  | **B.** | **Cabbage.** |
|  | **C.** | **Corn.** |
|  | **D.** | **Cucumbers.** |

|  |  |
| --- | --- |
| **223.** | **Beau wants to plant carrot, radish and turnip seeds in his garden.  What month would he plant his seeds?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **February** |
|  | **B.** | **May** |
|  | **C.** | **July** |
|  | **D.** | **August** |

|  |  |
| --- | --- |
| **224.** | **Paul planted broccoli plants in his garden.  These plants are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Any season.** |
|  | **B.** | **Cool season.** |
|  | **C.** | **Summer season.** |
|  | **D.** | **Warm season.** |

|  |  |
| --- | --- |
| **225.** | **What plants should Paul plant in his spring garden?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Broccoli, lettuce and spinach** |
|  | **B.** | **Kale, lettuce and spinach** |
|  | **C.** | **Okra, broccoli and onions** |
|  | **D.** | **Tomatoes, peppers and squash** |

|  |  |
| --- | --- |
| **226.** | **Julie planted lettuce and spinach plants in her garden.  These plants are:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Any season.** |
|  | **B.** | **Cool season.** |
|  | **C.** | **Non seasonal.** |
|  | **D.** | **Warm season.** |

|  |  |
| --- | --- |
| **227.** | **Henry found the best time to plant his onion sets is in the:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Fall.** |
|  | **B.** | **Spring.** |
|  | **C.** | **Summer.** |
|  | **D.** | **Winter.** |

|  |  |
| --- | --- |
| **228.** | **Claudia wants to plant her garden in February.  What type of seeds would she plant?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Beans and corn** |
|  | **B.** | **Cabbage and collards** |
|  | **C.** | **Carrots and radish** |
|  | **D.** | **Okra and cucumbers** |

|  |  |
| --- | --- |
| **229.** | **Willie has established a fall vegetable garden from seed.  What would you find growing in his garden?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Broccoli** |
|  | **B.** | **Corn** |
|  | **C.** | **Cucumbers** |
|  | **D.** | **Okra** |

|  |  |
| --- | --- |
| **230.** | **Matilda planted peppers and squash in her vegetable garden.  What time of year did she plant?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Early winter** |
|  | **B.** | **Fall** |
|  | **C.** | **Late winter** |
|  | **D.** | **Summer** |

|  |  |
| --- | --- |
| **231.** | **Trevor planted okra plants in his vegetable garden.  What time of year did he plant?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Fall** |
|  | **B.** | **Spring** |
|  | **C.** | **Summer** |
|  | **D.** | **Winter** |

**8.00**

|  |  |
| --- | --- |
| **232.** | **Caroline finds aphids on her plant.  She is MOST concerned the aphids will damage her plants by:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Chewing.** |
|  | **B.** | **Piercing and sucking.** |
|  | **C.** | **Rasping and sucking.** |
|  | **D.** | **Sponging.** |

|  |  |
| --- | --- |
| **233.** | **Insects with toothed jaws that bite and tear their food have what type of mouth parts?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Chewing** |
|  | **B.** | **Grinding** |
|  | **C.** | **Multiple** |
|  | **D.** | **Sucking** |

|  |  |
| --- | --- |
| **234.** | **Jana finds insects on her bedding plants.  She knows they are insects because of their:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Single body region and eight legs.** |
|  | **B.** | **Multiple body regions and hundred legs.** |
|  | **C.** | **Three body regions and six legs.** |
|  | **D.** | **Four body regions and twenty legs.** |

|  |  |
| --- | --- |
| **235.** | **A sponging type insect MOST likely damages a plant by:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Carrying disease from other plants.** |
|  | **B.** | **Chewing on the leaves.** |
|  | **C.** | **Piercing the leaves and sucking sap from the plant.** |
|  | **D.** | **Rasping the foliage and sucking sap from the plant.** |

|  |  |
| --- | --- |
| **236.** | **When insects are worms or caterpillars, what is their stage of development?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Adult** |
|  | **B.** | **Egg** |
|  | **C.** | **Fly** |
|  | **D.** | **Larva** |

|  |  |
| --- | --- |
| **237.** | **Athena waters her tomato plants and notices tiny holes in the leaves.  Which insect MOST likely caused the damage?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Beetles** |
|  | **B.** | **Cutworms** |
|  | **C.** | **Houseflies** |
|  | **D.** | **Thrips** |

|  |  |
| --- | --- |
| **238.** | **Which stage of development is MOST likely missing when an insect goes through incomplete metamorphosis?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Egg** |
|  | **B.** | **Nymph** |
|  | **C.** | **Pupa** |
|  | **D.** | **Adult** |

|  |  |
| --- | --- |
| **239.** | **Marcel notices the leaves of his bedding plants are damaged by a chewing insect.  Which insects are MOST likely responsible for the damage?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Aphids** |
|  | **B.** | **Butterflies** |
|  | **C.** | **Grasshoppers** |
|  | **D.** | **Thrips** |

|  |  |
| --- | --- |
| **240.** | **Joey attracts butterflies to his garden.  He knows they cause little or no damage to his plants.  The basis for his opinion is MOST likely butterflies have what type of mouth parts?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Chewing** |
|  | **B.** | **Piercing-sucking** |
|  | **C.** | **Rasping-sucking** |
|  | **D.** | **Siphoning** |

|  |  |
| --- | --- |
| **241.** | **Insects can be distinguished from spiders because insects have:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **2 body sections.** |
|  | **B.** | **6 legs.** |
|  | **C.** | **8 legs.** |
|  | **D.** | **No wings.** |

|  |  |
| --- | --- |
| **242.** | **Viruses, fungi and bacteria are types of:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Diseases.** |
|  | **B.** | **Flowers.** |
|  | **C.** | **Insects.** |
|  | **D.** | **Plants.** |

|  |  |
| --- | --- |
| **243.** | **Sally reads that for a plant to contract a disease it must have a:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Ailment.** |
|  | **B.** | **Dry soil.** |
|  | **C.** | **Insect problem.** |
|  | **D.** | **Pathogen.** |

|  |  |
| --- | --- |
| **244.** | **Diseases are common with horticultural crops because MOST plants are grown in high moisture and at warm temperatures which make a favorable:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Acidity.** |
|  | **B.** | **Environment.** |
|  | **C.** | **Genetics.** |
|  | **D.** | **Repellant.** |

|  |  |
| --- | --- |
| **245.** | **Brad read online that bacteria are what type of microorganisms:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Double celled.** |
|  | **B.** | **General.** |
|  | **C.** | **Particular.** |
|  | **D.** | **Single celled.** |

|  |  |
| --- | --- |
| **246.** | **Fernando notices that his plants have quickly turned brown and look as though they had been burned.  What disease MOST likely caused the problem?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Bacterial blight** |
|  | **B.** | **Damping off** |
|  | **C.** | **Leaf spot** |
|  | **D.** | **Mildew** |

|  |  |
| --- | --- |
| **247.** | **Rosa found distorted patterns of mottled colors varying from dark green, light green, yellow and white on the young leaves of her plants. This condition caused by viruses is:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Canker.** |
|  | **B.** | **Damping off.** |
|  | **C.** | **Mosaic.** |
|  | **D.** | **Smut.** |

|  |  |
| --- | --- |
| **248.** | **Carl reads that tobacco mosaic virus can also attack:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Corn.** |
|  | **B.** | **Radishes.** |
|  | **C.** | **Rubber plants.** |
|  | **D.** | **Tomatoes.** |

|  |  |
| --- | --- |
| **249.** | **After Paula smoked a cigarette during her break at work, her boss made sure she washed her hands before handling the tomato plants.  What could she spread to the tomato plants?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Damping off** |
|  | **B.** | **Leaf spot** |
|  | **C.** | **Mildew** |
|  | **D.** | **Mosaic virus** |

|  |  |
| --- | --- |
| **250.** | **Pam thinks her seedlings have a damping off problem. If this is the problem, what symptoms should she see?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Circular black spots on upper leaf surface** |
|  | **B.** | **Rusty growth on upper leaf surface of seedlings** |
|  | **C.** | **Seedlings rotting off at soil level** |
|  | **D.** | **White coating on plant leaves** |

**9.00**

|  |  |
| --- | --- |
| **251.** | **Aimee uses traps in her garden to:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Check pest population.** |
|  | **B.** | **Classify pests.** |
|  | **C.** | **Fumigate pests.** |
|  | **D.** | **Restrict pests.** |

|  |  |
| --- | --- |
| **252.** | **Which is MOST true of a chemical that kills all the plants and not just one specific kind of weed?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Non-restricted pesticide** |
|  | **B.** | **Non-selective herbicide** |
|  | **C.** | **Restricted pesticide** |
|  | **D.** | **Selective herbicide** |

|  |  |
| --- | --- |
| **253.** | **Which is required on every chemical label?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Active ingredients** |
|  | **B.** | **Name of person who developed the chemical** |
|  | **C.** | **Retail and wholesale prices** |
|  | **D.** | **Year the chemical was first developed** |

|  |  |
| --- | --- |
| **254.** | **If the chemical label has the word POISON, it will also have this symbol:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Red flag.** |
|  | **B.** | **Skull and crossbones.** |
|  | **C.** | **Stop sign.** |
|  | **D.** | **Yield sign.** |

|  |  |
| --- | --- |
| **255.** | **Which signal word on a pesticide label indicates the LEAST toxic chemical?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Caution** |
|  | **B.** | **Danger** |
|  | **C.** | **Restricted** |
|  | **D.** | **Warning** |

|  |  |
| --- | --- |
| **256.** | **Which word(s) on a chemical label indicate(s) the GREATEST hazard to humans?** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Caution** |
|  | **B.** | **Danger** |
|  | **C.** | **Keep out of reach of children** |
|  | **D.** | **Warning** |

|  |  |
| --- | --- |
| **257.** | **The reentry statement on a chemical label states how long you must wait after applying the chemical before:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **People can enter the treated area.** |
|  | **B.** | **The pesticide will enter the pest's body.** |
|  | **C.** | **The treated pest will come back.** |
|  | **D.** | **You treat the area again.** |

|  |  |
| --- | --- |
| **258.** | **The statement of practical treatment on a chemical label states how to:** |

|  |  |  |
| --- | --- | --- |
|  | **A.** | **Help a poisoned person.** |
|  | **B.** | **Properly treat an infested area.** |
|  | **C.** | **Use the chemical safely.** |
|  | **D.** | **Wear protective clothing.** |