**5.00**

|  |  |  |
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| **1.** |  | **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.** |

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| --- | --- |
| **2.** | **Which is the BEST growing media if an INORGANIC media is desired?** |

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

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| **3.** | **If Vijay wishes to add weight to keep his gallon nursery stock from blowing over, what should he add to his soiless mix at planting?** |

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

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| **4.** | **Which is a better ORGANIC material for use in a growing media?** |

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

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| **5.** | **Marcy mixes perlite in her soiless mix.  What is perlite?** |

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

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| **6.** | **While the pH of MOST commercial horticulture soiless mixes is neutral, the pH of bark, peat moss and sphagnum moss is:** |

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

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| **7.** | **The high carbon to nitrogen ratio of non- decomposed sawdust and wood shavings affects nitrogen in growing media by:** |

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

|  |  |
| --- | --- |
| **8.** | **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.** |

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| **9.** | **Which is the MOST likely effect of adding perlite to the growing media?** |

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

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| **10.** | **Perlite and vermiculite are MOST likely examples of:** |

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

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| **11.** | **Which is a light-weight inorganic mica mineral capable of absorbing a large amount of water in growing media?** |

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

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| **12.** | **Pedro likes to add compost to condition his soil.  What is compost?** |

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

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| --- | --- |
| **13.** | **Which is the BEST growing media if an INORGANIC media is desired?** |

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

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| **14.** | **A soil test report with a pH of 7.2 is:** |

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

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| **15.** | **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.** |

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| **16.** | **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.** |

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| **17.** | **The MOST desirable soil for non-container outdoor plant production is:** |

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

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| **18.** | **Rory is studying the pH scale.  What number represents neutral?** |

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

|  |  |
| --- | --- |
| **19.** | **What is the percentage of solid soil particles in an ideal soil?** |

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

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| **20.** | **A soil test report will include:** |

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

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| **21.** | **Which is a characteristic of sandy textured soils?** |

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

|  |  |
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| **22.** | **When measuring pH, the higher the soil pH number, the:** |

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

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| **23.** | **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.** |

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| **24.** | **Which pH reading is acid?** |

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

|  |  |
| --- | --- |
| **25.** | **When indicating or measuring pH, the lower the pH number, the:** |

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

|  |  |
| --- | --- |
| **26.** | **Which pH reading is alkaline?** |

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

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| **27.** | **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.** |

|  |  |
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| **28.** | **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:** |

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

|  |  |
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| **29.** | **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.** |

|  |  |
| --- | --- |
| **30.** | **Which soil particles are the SMALLEST?** |

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

|  |  |
| --- | --- |
| **31.** | **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.** |

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| **32.** | **What is the texture of soils that have about equal parts of sand, clay and silt?** |

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

Soil Test Essay

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_\_\_

33. What plant with a snowball like flower turns pink when planted in alkaline soils and turns blue when planted

in acidic soils?

34. What material could be added to an alkaline soil to make it more acidic?

35. What is an advantage of using soilless media in a container to using soil in a container?

36. If I have a container with soilless media, but there is very little drainage or no drain holes, what can I do to better the situation?

37. Whom do I contact for more information on preparing a soil test?

38. What is one thing I can do to improve my soil structure?

39. What is one thing I could do to worsen soil structure?

40. What agency do I send soil samples to?

41. What is in the top layer of a soil profile, called the O horizon?

42. Does organic matter float or sink in a soil particle distribution test (soil shake)?

43. Using the soil textural triangle provided: If I have a soil with 30% clay, 40% sand, and 30% silt, what is my

soil texture?

44. Using the soil textural triangle provided: If I have a soil with 95% clay and 5% sand, what is my soil texture?

45. Using the soil sample provided, do the ribbon test. What soil texture is this? (5 pts)

