**Forestry CDE Bank 2**

**MULTIPLE CHOICE**

1. Which of the following statements is MOST TRUE with respect to forest ecosystems?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | A disease outbreak is likely to cause more damage to a mixed-species ecosystem compared to a single-species plantation. | c. | One natural disaster will not result in a total loss of the timber resource. |
| b. | A single-species plantation is more resistant to insect damage compared to a mixed- species ecosystem. | d. | The more diverse the ecosystem, the more resistant it is to insect damage. |

ANS: D PTS: 1

2. Which tree species is the most tolerant to flooding?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Shortleaf Pine | c. | Red Oak |
| b. | Black Walnut | d. | Green Ash |

ANS: D PTS: 1

3. Which of the following is an accurate portrayal of the stages of succession?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Annual weeds, perennials, shrubs, young trees | c. | Annual weeds, young trees, shrubs, perennials |
| b. | Annual weeds, shrubs, perennials, young trees | d. | Perennials, annual weeds, shrubs, young trees |

ANS: A PTS: 1

4. Of the environmental factors listed below, generally the MOST limiting one for a shade intolerant species is \_\_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Moisture | c. | Soil Quality |
| b. | Sunlight | d. | Temperature |

ANS: B PTS: 1

5. Which of the following site characteristics are less favorable for tree growth?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Deep soil, fine texture, good drainage | c. | Broad ridges and lower slopes |
| b. | Gentle slopes | d. | South and west facing slopes. |

ANS: D PTS: 1

6. One acre contains how many square feet?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 34,650 | c. | 43,600 |
| b. | 43,560 | d. | 36,350 |

ANS: B PTS: 1

7. Name the regeneration system where healthy, large-crowned trees are left and the new stand is established under the partial shade of the older trees.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Clearcut | c. | Shelterwood |
| b. | Seed Tree | d. | Single tree |

ANS: C PTS: 1

8. When planting trees, a spacing of 8 x 8 feet will result in how many trees per acre?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 340 | c. | 889 |
| b. | 680 | d. | 1,210 |

ANS: B PTS: 1

9. The study of insects and their relationship with the forest is called \_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Dendrology | c. | Forest Hydrology |
| b. | Forest Pathology | d. | Forest Entomology |

ANS: D PTS: 1

10. Abnormal tissue growth on trees that is caused by insects or mites is called a \_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Conk | c. | Gall |
| b. | Fungus | d. | Pitch |

ANS: C PTS: 1

11. Defoliators are insects that attack the of the tree.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Bark | c. | Roots |
| b. | Buds | d. | Leaves |

ANS: D PTS: 1

12. Which of the following is true regarding crown fires?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | They almost always start as surface fires. | c. | They are the most common type of forest fires. |
| b. | They are more common in deciduous forests. | d. | They are the slowest spreading of all fires. |

ANS: A PTS: 1

13. Which is NOT a function of those plants growing next to the stream in a riparian forest buffer?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Slow surface water runoff from farm field converting concentrated flow to sheet flow. | c. | Shade the stream and moderate water temperatures. |
| b. | Reduce velocity of over-the-bank floodwaters. | d. | Storage and breakdown of NPS pollutants. |

ANS: A PTS: 1

14. Windbreaks are most effective when oriented at what angle to prevailing or troublesome winds?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 30 degrees | c. | 60 degrees |
| b. | 45 degrees | d. | 90 degrees |

ANS: D PTS: 1

15. The most widely known and used hardwood is

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Ash | c. | Maple |
| b. | Hickory | d. | Oak |

ANS: D PTS: 1

16. What part of a timber sale contract depends upon the harvesting objective?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Preamble | c. | Conditions of payment |
| b. | Description of sale area | d. | Designation of which trees to cut |

ANS: D PTS: 1

17. A standard cord of wood measures .

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 128 cubic feet | c. | 160 cubic feet |
| b. | 128 square feet | d. | 160 square feet |

ANS: A PTS: 1

18. Which of the following species is NOT considered a naturally durable wood?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Eastern Red cedar | c. | Black Walnut |
| b. | White Oak | d. | Cottonwood |

ANS: D PTS: 1

19. In general, wood contains \_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_, and \_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 77% volatile matter, 20% fixed carbon, 2% ash | c. | 70% hydrogen oxide, 25% carbon, 5 % volatile matter. |
| b. | 6% hydrogen, 52% carbon, 43% oxygen. | d. | None of the above. |

ANS: A PTS: 1

20. A \_\_\_\_\_\_\_\_\_\_\_is a region where water from rain and snow are absorbed into the soil.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Biological value | c. | Watershed |
| b. | Shrub layer | d. | Forest floor |

ANS: C PTS: 1

21. Growth in the diameter of a root is \_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Primary growth | c. | Root hairs |
| b. | Secondary growth | d. | Root cap growth |

ANS: B PTS: 1

22. A tensiometer is an instrument that measures the amount of \_\_\_\_\_\_\_\_in the soil.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Fertility | c. | Pressure |
| b. | Dryness | d. | Moisture |

ANS: D PTS: 1

23. An animal with a diet of plants only, is called a \_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Herbivore | c. | Carnivore |
| b. | Predator | d. | Omnivore |

ANS: A PTS: 1

24. Which of these forestry practices is illegal in the United States?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Transplanting | c. | Mechanical Pulping |
| b. | Pruning | d. | Spiking |

ANS: D PTS: 1

25. Some of the best hardwood logs are sawed into thick pieces of high-quality wood for veneers, these pieces are called .

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Flitches | c. | Plywood |
| b. | Veneer | d. | Beam |

ANS: A PTS: 1

26. A hydrapulper is a machine that reduces\_\_\_\_\_\_\_\_ into pulp.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Plastics | c. | Recycled paper |
| b. | Wood particles | d. | Water |

ANS: C PTS: 1

27. Cytoplasm includes all of the cell contents except for the .

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Vacuole | c. | Nucleus |
| b. | Chloroplast | d. | Golgi Body |

ANS: C PTS: 1

28. \_\_\_\_\_\_\_\_\_\_ is the flower organ in which pollen grains develop and mature.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Filament | c. | Stigma |
| b. | Sepals | d. | Anther |

ANS: D PTS: 1

29. When the photosynthesis process is interrupted, the enzyme reacts with oxygen and reverses the process of photosynthesis. This process is called .

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Calvin Cycle | c. | Transpiration |
| b. | Respiration | d. | Dehydration Synthesis |

ANS: B PTS: 1

30. A forest that has been regenerated from the roots, stumps, or branches of other trees is known as a

|  |  |  |  |
| --- | --- | --- | --- |
| a. | High Forest | c. | Medium Forest |
| b. | Low Forest | d. | Old Forest |

ANS: B PTS: 1

31. Which of the following is the MOST significant reason species have become threatened or endangered?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Controlled as pests. | c. | Illegal Killing |
| b. | Pesticides | d. | Landscape Alteration |

ANS: D PTS: 1

32. A problem associated with log skidding and road construction resulting in contamination of surface water is known as \_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Bucking | c. | Situation |
| b. | Scaling | d. | Skidding |

ANS: C PTS: 1

33. This is the most important source of biomass across the globe.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Agricultural crops | c. | Forests |
| b. | Crop residues | d. | Crop processing wastes |

ANS: C PTS: 1

34. If a forested area is cleared to grow crops and then is allowed to revert to its natural ecological environment it is called \_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Primary succession | c. | Pioneer succession |
| b. | Secondary succession | d. | Ecological succession |

ANS: B PTS: 1

35. The hollowed-out interiors of these dead cells become passages for transporting dissolved nutrients to other parts of the tree.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Xylem | c. | Collenchymas |
| b. | Epidermis | d. | Tracheids |

ANS: D PTS: 1

36. This is a method of propagating plants asexually by reproducing entire plants from a single plant cell.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Tissue culture | c. | Layering |
| b. | Sprouting method | d. | Division |

ANS: A PTS: 1

37. Which of the following trees has bi-pinnately compound leaves?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Hickories | c. | Yellow Poplar |
| b. | Mesquites | d. | Pecan |

ANS: B PTS: 1

38. This oval shaped structure contains the hereditary material through which a living organism passes its traits to its offspring.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Cytoplasm | c. | Nucleus |
| b. | Golgi Body | d. | Mitochondria |

ANS: C PTS: 1

39. These soils are high in calcium, magnesium, sodium and potassium and support oaks, hickories, Ponderosa pine and Lodgepole pine.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Humus | c. | Spodosols |
| b. | Ultisols | d. | Alfisols |

ANS: D PTS: 1

40. Heart rot is a type of which is also a disease.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | White rot, biotic | c. | Brown rot, biotic |
| b. | White rot, abiotic | d. | Brown rot, abiotic |

ANS: C PTS: 1

41. How many cords of wood are in a stack of wood 16 ft long by 6 ft high by 4 ft wide?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 1.76 | c. | 3.0 |
| b. | 2.3 | d. | 3.2 |

ANS: C PTS: 1

42. This tree is considered the densest of all trees in North America.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Pignut hickory | c. | Black oak |
| b. | Black walnut | d. | Pecan |

ANS: A PTS: 1

43. This process creates the highest yield of paper but the lowest paper strength.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Chemical pulping | c. | Mechanical pulping |
| b. | Semi chemical pulping | d. | Bleaching before pulping |

ANS: C PTS: 1

44. Which of the following is NOT a basic assumption applied to partial cruses to ensure the accuracy of the results?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Teams of two cruisers work together, one taking measurements, one recording the data. | c. | Enough samples should be tallied to reduce the chance that errors will occur. |
| b. | The sample must be representative of the entire forest. | d. | The plot size should be large enough to tally 15-20 trees per acre. |

ANS: A PTS: 1

45. Which rule for scaling logs considers the amount of wood in the taper of the log from the small end to the large end?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Scribner | c. | International |
| b. | Doyle | d. | None of them |

ANS: C PTS: 1

46. The rule of thumb for calculating the rate of spread is R=W. R=rate of spread and W=wind speed. If the wind is blowing 20 mph what is the rate of spread?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 40 | c. | 200 |
| b. | 80 | d. | 400 |

ANS: D PTS: 1

47. A type of cutting that is used to prevent the spread of a disease or insect problem to other vulnerable trees in an area is called .

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Cleaning operation | c. | Salvage cutting |
| b. | Intermediate cutting | d. | Sanitation cutting |

ANS: D PTS: 1

48. How many square feet are in 2.5 acres?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 25,000 | c. | 87,120 |
| b. | 43,560 | d. | 108,900 |

ANS: D PTS: 1

49. When felling a tree, a \_\_\_\_\_\_\_\_\_removes a wedge of wood from the side where the logger wants the tree to fall.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Back cut | c. | Undercut |
| b. | Over cut | d. | Front cut |

ANS: C PTS: 1

50. Name the regeneration system where mature timber is removed, usually the oldest or largest trees, either as single scattered trees or in small groups at relatively short intervals, commonly 5 to 20 years.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Selection | c. | Seed Tree |
| b. | Clearcut | d. | Shelterwood |

ANS: A PTS: 1

51. If Mr. Fletcher plans to plant 50 acres of Longleaf Pine seedlings on 8 feet x 10 feet intervals. How many seedlings per acre will Mr. Fletcher plant?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 96 | c. | 454 |
| b. | 432 | d. | 545 |

ANS: D PTS: 1

52. What part of a timber sale contract depends upon the property boundaries?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Preamble | c. | Conditions of payment |
| b. | Description of sale area | d. | Designation of which trees to cut |

ANS: B PTS: 1

53. Which of the following is not a surface-rooted species?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Birch | c. | Hickory |
| b. | Lodgepole Pine | d. | Hemlock |

ANS: C PTS: 1

54. The process of consuming carbohydrates and oxygen to obtain energy for the biological processes of life support, growth, and reproduction is called

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Photosynthesis | c. | Transpiration |
| b. | Respiration | d. | Oxidation |

ANS: B PTS: 1

55. If the male and female flower parts occur in separate flowers on the same tree, the species is said to be .

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Dioecious | c. | Carpellate |
| b. | Monoecious | d. | Angiosperms |

ANS: B PTS: 1

56. If you are traveling an azimuth of 265, you are headed in a \_\_\_\_\_\_ direction.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Northwest | c. | Southeast |
| b. | Northeast | d. | Southwest |

ANS: D PTS: 1

57. Which of the following is a common leaf form?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Dentate | c. | Truncate |
| b. | Incised | d. | Lanceolate |

ANS: D PTS: 1

58. What is the form class of a tree 16 inches in dbh and 12 inches in diameter inside bark at the top of the first 16-foot log?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 75 | c. | 1.33 |
| b. | .075 | d. | 133 |

ANS: A PTS: 1

59. is a method in which the performance of a genotype is tested over a geographic range.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Genetic engineering | c. | Provenance testing |
| b. | Progeny testing | d. | Clone testing |

ANS: C PTS: 1

60. are the fastest spreading of all types of fires.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Crown fires | c. | Surface fires |
| b. | Ground fires | d. | None of the above |

ANS: A PTS: 1

61. Length of darkness influences plant growth. This is known as \_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Geotropism | c. | Photoperiodism |
| b. | Thermotropism | d. | Light Intensity |

ANS: C PTS: 1

62. Which of the following is not a type of veneer?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Sawed | c. | Sliced |
| b. | Scraped | d. | Rotary Cut |

ANS: B PTS: 1

63. Several layers of vegetation found in a forest is called the .

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Strata | c. | Herb layer |
| b. | Canopy | d. | Shrubs |

ANS: A PTS: 1

64. rule assumes 1-inch boards and ¼ inch kerf, makes a liberal allowance for slabs, and disregards taper.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | International Rule | c. | Doyle Rule |
| b. | Doyle-Scribner Rule | d. | Scribner Rule |

ANS: D PTS: 1

65. For which of the following would a fungicide be used?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Aphid | c. | Heart Rot |
| b. | Slime Flux | d. | Nematode |

ANS: C PTS: 1

66. When fuel burns, it reacts with oxygen from the surrounding air releasing heat and generating.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Pyrophoric | c. | Oxidation |
| b. | Pyrolysis | d. | Deflagration |

ANS: C PTS: 1

67. \_\_\_\_\_\_\_\_\_\_ are considered better sources for fuel wood.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Softwoods | c. | Low-density woods |
| b. | Hardwoods | d. | Medium density woods |

ANS: B PTS: 1

68. \_\_\_\_\_\_\_\_\_\_is a small leaf like appendage to a leaf, typically borne in pairs at the base of the leaf stalk.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Stipule | c. | Auxiliary Bud |
| b. | Petiole | d. | Lenticel |

ANS: A PTS: 1

69. When occurs the seed breaks dormancy and begins to sprout.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Fertilization | c. | Germination |
| b. | Pollination | d. | Asexual Reproduction |

ANS: C PTS: 1

70. is a cell structure that gathers excess water and wastes that are discharged through the cell wall.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Mitochondrion | c. | Chloroplast |
| b. | Golgi Apparatus | d. | Vacuole |

ANS: D PTS: 1

71. A sapling is a tree that is more than \_\_\_\_\_\_ in height and up to \_\_\_\_\_\_\_\_\_ in diameter.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 2 ft, 3 in | c. | 3 ft, 4 in |
| b. | 3 ft, 6 in | d. | 1 ft, 2 in |

ANS: D PTS: 1

72. How many board feet are present in a 2-inch thick, 12 inch wide, and 144 inch long board?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 24 | c. | 144 |
| b. | 288 | d. | 32 |

ANS: A PTS: 1

73. An anther is a plant structure found on/in the .

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Leaf | c. | Stem |
| b. | Flower | d. | Root |

ANS: B PTS: 1

74. The first plants to grow naturally in a burned or cleared area are called

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Softwoods | c. | Hardwoods |
| b. | Pioneers | d. | Shrubs |

ANS: B PTS: 1

75. A dicot has cotyledon(s).

|  |  |  |  |
| --- | --- | --- | --- |
| a. | One | c. | Three |
| b. | Two | d. | None |

ANS: B PTS: 1

76. Which of the following is not correct?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Sycamores as aggregate fruit | c. | Maples have samaras |
| b. | Pines have cones | d. | Oaks as indehiscents |

ANS: A PTS: 1

77. John’s step factor is 2.86 feet. How many steps does John take to measure a distance of 100 feet?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 40 | c. | 35 |
| b. | 39 | d. | 34 |

ANS: C PTS: 1

78. The scientific name for Chestnut Oak is….

|  |  |  |  |
| --- | --- | --- | --- |
| a. | *Quercus velutina* | c. | *Quercus rubra* |
| b. | *Quercus alba* | d. | *Qurercus montana* |

ANS: D PTS: 1

79. \_\_\_\_\_\_\_\_\_\_ is lumber sawn in the horizontal plane, or end surface, of a log.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Plain-sawed wood | c. | End grain-sawed wood |
| b. | Quarter-sawed wood | d. | None are correct |

ANS: C PTS: 1

80. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is formed through meiosis consists of one chromatid from each original chromosome pair.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Haploid cell | c. | Tetrad cell |
| b. | Diploid cell | d. | Mother cell |

ANS: A PTS: 1

81. Pulpwood being processed for paper is debarked then chipped into pieces about \_\_\_\_\_\_\_\_ in size.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 1 | c. | 3 |
| b. | 2 | d. | 4 |

ANS: A PTS: 1

82. To use the \_\_\_\_\_\_\_\_\_\_\_\_\_, a forester pushes or drives the cutting edge through the bark until it reaches wood, then pushes the guard against the tree or log for a measurement.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Bark Gauge | c. | Tree Caliper |
| b. | Increment Borer | d. | Soil Auger |

ANS: A PTS: 1

83. A complete soil profile includes these horizons in what order?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | A, B, C, E, O, R | c. | O, A, E, B, C, R |
| b. | B, A, C, O, E, R | d. | R, O, A, C, E, B |

ANS: C PTS: 1

84. maps are color-enhanced photographic images that show land features.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Orthophoto | c. | Relief |
| b. | Physical | d. | Road |

ANS: C PTS: 1

85. Some kinds of plants maintain their dominance over other plants by releasing chemicals into the area close around them that provide small doses of poison to invading plants. This is called \_\_\_\_\_\_\_ .

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Allelopathic effect | c. | Carbonization process |
| b. | Adaptive behavior | d. | Dentification |

ANS: A PTS: 1

86. The degree of acidity or alkalinity of a soil is expressed in pH values. Which of the following pH values is most acidic?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 8.5 | c. | 5.5 |
| b. | 7.0 | d. | 4.0 |

ANS: D PTS: 1

87. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_is a lengthwise separation of the wood, which usually extends across the rings of annual growth, commonly resulting from stresses set up in wood during seasoning.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Cant | c. | Check |
| b. | Catface | d. | Conk |

ANS: C PTS: 1

88. You tally 9 trees using a 10-factor wedge prism within a plot. What is the basal area in square feet per acre of the trees around that point?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 0.9 | c. | 90 |
| b. | 9 | d. | 10 |

ANS: C PTS: 1

89. If Area = Pi x radius2, then what is the plot radius for 1/5 acre?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 37.25 feet | c. | 58.9 feet |
| b. | 52.6 feet | d. | 66 feet |

ANS: B PTS: 1

90. Which specie and bark type is incorrect?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | American Beech – Smooth | c. | Hickory – Furrowed |
| b. | Eastern White Pine – Blocky | d. | Black Oak – Furrowed |

ANS: B PTS: 1

91. Assume that a cord of firewood costs $150, how much would a stack of wood measuring 4’ x 4’ x 16’ cost?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | $75 | c. | $300 |
| b. | $150 | d. | $450 |

ANS: C PTS: 1

92. How many sections are there in a township?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 1 | c. | 640 |
| b. | 36 | d. | 43,560 |

ANS: B PTS: 1

93. \_\_\_\_\_\_\_\_\_ is the capacity of a tree to develop and grow in the shade while in competition with other trees.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Tracheids | c. | Toughness |
| b. | Reproduction | d. | Tolerance |

ANS: D PTS: 1

94. a reconstituted board containing a high percentage of wood shaving in the central core with layers of wood flakes on either side of the core and fine sawdust near the surface.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Particleboard | c. | Fiberboard |
| b. | OSB | d. | Hardboard |

ANS: A PTS: 1

95. Axial parenchyma cells originate from the cambium forming a network of \_\_\_\_\_\_\_\_\_ cells around the tree. They transport sugars (food) to the parenchyma cells within the growth ring, and they store starch.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Living | c. | Segmented |
| b. | Dead | d. | Guard |

ANS: A PTS: 1

96. Pick the correct definition of habitat structure?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Characteristics of the natural environment such as sunlight, temperature, moisture, and wind | c. | The shrubs, young trees, and plants near the forest floor |
| b. | Physical characteristics of the natural environment, such as how many trees there are, how tall they are, and what species they are | d. | Animal or plant species that live in areas that have just had a large disturbance that removed much of the canopy, such as an extreme weather event like a windstorm or a clear-cut timber harvest |

ANS: B PTS: 1

97. What job title is being described?

A(n)\_\_\_\_\_\_\_samples water from a stream to make sure that it is safe.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Volunteer | c. | Ecologist |
| b. | Naturalist | d. | Logger |

ANS: C PTS: 1

98. What word matches this definition?

The amount of sky obscured by the leaves and branches of the top layer of trees in the forest, measured as a percent.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Clear cut | c. | Ground cover |
| b. | Early successional | d. | Canopy cover |

ANS: D PTS: 1

99. The trunk of a tree is considered which of the following?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Internode | c. | Crown |
| b. | Bole | d. | Root |

ANS: B PTS: 1

100. Which of the following is false about cambium cells?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Cambium cells live between wood and bark cells and are visible only with a magnifying glass | c. | Cambium cells divide forming wood cells toward the center of the tree and bark cells toward the outside |
| b. | Cambium growth widens tree trunks, limbs, and roots | d. | Cambium cells carry food made in the leaves to the twigs, branches, trunk, and roots |

ANS: D PTS: 1

101. Which of the following is not an artificial reproductive method?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Pruning | c. | Cuttings |
| b. | Budding and Grafting | d. | All of the above are artificial reproductive methods |

ANS: A PTS: 1

102. Oxygenic photosynthesis occurs in the \_\_\_\_\_\_\_\_\_ located in the plant cell and absorbs blue and red wavelengths of lights.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Mitochondrion | c. | Nucleus |
| b. | Golgi Apparatus | d. | Chloroplast |

ANS: D PTS: 1

103. Axial parenchyma cells originate from the \_\_\_\_\_\_\_\_\_forming a network of living cells around the tree. They transport sugars (food) to the parenchyma cells within the growth ring, and they store starch.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Heartwood | c. | Sapwood |
| b. | Cambium | d. | Seriate |

ANS: B PTS: 1

104. A leaf \_\_\_\_\_\_\_\_is the space or indentation between the lobes of a leaf blade.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Sinus | c. | Apex |
| b. | Margin | d. | Midrib |

ANS: A PTS: 1

105. Which species of wood can be used to produce ax handles?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Sycamore | c. | Bald Cypress |
| b. | White Birch | d. | Hickory |

ANS: D PTS: 1

106. Which of the following statements is not true about monocots?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Monocot seeds have one cotyledon. | c. | Monocot leaves have parallel venation. |
| b. | Monocot flower parts come in multiples of 4 and 5. | d. | Monocots have scattered vascular bundles in the stem. |

ANS: B PTS: 1

107. Which of the following is an accurate portrayal of the stages of succession?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Annual weeds, perennials, shrubs, young trees | c. | Annual weeds, young trees, shrubs, perennials |
| b. | Annual weeds, shrubs, perennials, young trees | d. | Perennials, annual weeds, shrubs, young trees |

ANS: B PTS: 1

108. Which is NOT a function of those plants growing next to the stream in a riparian forest buffer?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Slow surface water runoff from farm fields converting concentrated flow to sheet flow. | c. | Shade the stream and moderate water temperatures. |
| b. | Reduce velocity of over-the-bank floodwaters. | d. | Storage and breakdown of NPS pollutants. |

ANS: A PTS: 1

109. Which rule for scaling logs considers the amount of wood in the taper of the log from the small end to the large end?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Scribner | c. | International |
| b. | Doyle | d. | None of them |

ANS: C PTS: 1

110. \_\_\_\_\_\_\_ is an obligate parasite, and while trees usually do not die from the infestation, their growth is restricted.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Slime Flux | c. | Nematode |
| b. | Rust | d. | Heart Rot |

ANS: B PTS: 1

111. A \_\_\_\_\_\_\_is formed through meiosis consisting of one chromatid from each original chromosome pair.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Haploid cell | c. | Tetrad cell |
| b. | Diploid cell | d. | Mother cell |

ANS: A PTS: 1

112. Which of the following does not influence the color of soil?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Amount of organic matter | c. | Minerals in the soil |
| b. | Drainage of the soil | d. | Amount of silt |

ANS: D PTS: 1

113. include damage caused to trees by conditions such as drought, heat, cold and other conditions, they are not contagious, but they may affect many trees in an area.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Abiotic diseases | c. | Fungus |
| b. | Biotic diseases | d. | Parasites |

ANS: A PTS: 1

114. When felling a tree with a chainsaw the back cut \_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | is placed below the undercut | c. | should be level with the bottom of the open face notch |
| b. | should be placed on the same level as the undercut | d. | should cut straight through the notch |

ANS: C PTS: 1

115. How many square feet are in 5.5 acres?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 425,000 | c. | 187,120 |
| b. | 243,560 | d. | 239,580 |

ANS: D PTS: 1

116. Mr. Fletcher plans to plant 50 acres of Longleaf Pine seedlings on 8 feet x 10 feet intervals. How many seedlings per acre will Mr. Fletcher plant?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 96 | c. | 454 |
| b. | 432 | d. | 545 |

ANS: D PTS: 1

117. If the male and female flower parts occur in separate flowers on the same tree, the species is said to be .

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Dioecious | c. | Carpellate |
| b. | Monoecious | d. | Angiosperms |

ANS: B PTS: 1

118. What is the form class of a tree 24 inches in dbh and 18 inches in diameter inside bark at the top of the first 16-foot log?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 75 | c. | 1.33 |
| b. | .075 | d. | 133 |

ANS: A PTS: 1

119. Length of darkness influences plant growth. This is known as \_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Geotropism | c. | Photoperiodism |
| b. | Thermotropism | d. | Light Intensity |

ANS: C PTS: 1

120. For which of the following would an insecticide be used?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Aphid | c. | Heart Rot |
| b. | Slime Flux | d. | Nematode |

ANS: A PTS: 1

121. In the rectangular survey system developed by Thomas Jefferson, \_\_\_\_\_\_\_

run north to south.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Principal Meridians | c. | Secondary Meridians |
| b. | Primary Meridians | d. | Guide Meridians |

ANS: A PTS: 1

122. How many board feet are present in 20 boards 5/4 inches thick, 12 inches wide, and 144 inches long?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 24 | c. | 3600 |
| b. | 300 | d. | 240 |

ANS: B PTS: 1

123. \_\_\_\_\_\_\_\_ is a lengthwise separation of the wood, which usually extends across the rings of annual growth, commonly resulting from stresses set up in wood during seasoning.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Cant | c. | Check |
| b. | Catface | d. | Conk |

ANS: C PTS: 1

124. You tally 8 trees using a 10-factor wedge prism within a plot. What is the basal area in square feet per acre of the trees around that point?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 0.8 | c. | 80 |
| b. | 8 | d. | 10 |

ANS: C PTS: 1

125. If Area = Pi x radius2, then what is the plot radius for 1/10 acre?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 37.25 feet | c. | 58.9 feet |
| b. | 52.6 feet | d. | 66 feet |

ANS: A PTS: 1

126. Which species and bark type is incorrect?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | American Beech – Smooth | c. | Hickory – Warty |
| b. | Eastern White Pine – Scaly | d. | Black Oak – Furrowed |

ANS: C PTS: 1

127. Assume that a cord of firewood costs $150, how much would a stack of wood measuring 4’ x 4’ x 14’ cost?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | $75 | c. | $263 |
| b. | $150 | d. | $450 |

ANS: C PTS: 1

128. The best planting method for waterlogged soils is

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Pit planting | c. | Berm planting |
| b. | Mound planting | d. | Dibble planting |

ANS: B PTS: 1

129. Opposite of succession is called:

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Secondary succession | c. | Retention |
| b. | Tertiary succession | d. | Retrogression |

ANS: D PTS: 1

130. Which of the following is the correct way to write a legal description of a land Parcel:

|  |  |  |  |
| --- | --- | --- | --- |
| a. | S 16, T4N, R2E, NE 1/4 of SE ¼ | c. | NW 1/4 of SW 1/4, S16, T4N, R2E |
| b. | R2E, S16, T4N, NW 1/4 of SW ¼ | d. | NE 1/4 of Se 1/4, R2E, T4N, S16 |

ANS: C PTS: 1

131. A method of natural control of forest insect pests include(s):

|  |  |  |  |
| --- | --- | --- | --- |
| a. | allowing predators of the insect to control them | c. | spraying with insecticide after the trees are felled |
| b. | logging the infested tree | d. | none are correct |

ANS: A PTS: 1

132. The distinctive feature of topographic maps is the \_\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | location of forest land | c. | location of roads and waterways |
| b. | location of landmarks | d. | shape or contour of the land |

ANS: D PTS: 1

133. The use of a counter (back) fire is what type of forest fire control?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Direct | c. | Prescribed |
| b. | Indirect | d. | Triangulation |

ANS: B PTS: 1

134. The decline in value of a fixed asset due to wear and tear from use is called:

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Declination | c. | Depreciation |
| b. | Depletion | d. | Diminishing returns |

ANS: C PTS: 1

135. On a topographic map which of the following is a dark, heavy line with an elevation figure?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | contour index | c. | contour line |
| b. | contour interval | d. | horizontal control station |

ANS: A PTS: 1

136. An azimuth reading of 196 degrees would convert to a bearing of \_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 96 degrees south | c. | S 16 degrees W |
| b. | 196 degrees SW | d. | 16 degrees SW |

ANS: C PTS: 1

137. Merchantable height is that height from the stump to \_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | a specified minimum top diameter | c. | that point which is 2/3 the total height of the tree |
| b. | half-way between the first branch and the top of the tree | d. | the very top of the tree |

ANS: A PTS: 1

138. Light distribution can affect tree form, resulting in \_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | greater development of the tree on the side exposed to the most sunlight | c. | a tall, spindly tree because of exposure to the sun |
| b. | less growth on the side of the tree exposed to the most sunlight | d. | a short, overtopped tree because of exposure to the sun |

ANS: A PTS: 1

139. Seed formation depends on the amount of reserve \_\_\_\_\_\_\_ and nitrogenous materials in a tree.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Fatty acids | c. | Proteins and amino acids |
| b. | Carbohydrates | d. | Oxygen |

ANS: B PTS: 1

140. The term \_\_\_\_\_\_\_\_ is used to describe the physical expression of an inherited tree trait that can be measured and observed.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | genotype | c. | physical map |
| b. | genetic map | d. | phenotype |

ANS: D PTS: 1

141. The damage done by the gypsy moth is when it is in the \_\_\_\_\_\_\_stage.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Adult | c. | Egg |
| b. | Pupae | d. | Larva |

ANS: D PTS: 1

142. Adult insects have 6 legs, adult mites have \_\_\_\_\_ legs.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 2 | c. | 6 |
| b. | 4 | d. | 8 |

ANS: D PTS: 1

143. Abnormal growth on trees that is caused by insects or mites is often called\_\_\_\_\_\_\_\_.

|  |  |  |  |
| --- | --- | --- | --- |
| a. | Galls | c. | Whirls |
| b. | Conks | d. | Scales |

ANS: A PTS: 1

144. How many acres are in an area 25 chains long by 20 chains wide?

|  |  |  |  |
| --- | --- | --- | --- |
| a. | 0.5 acres | c. | 50 acres |
| b. | 5 acres | d. | 500 acres |

ANS: C PTS: 1

145. Trees are planted along city streets to help increase .

|  |  |  |  |
| --- | --- | --- | --- |
| a. | gas removal and particulate collection | c. | temperatures of sidewalks and road surfaces |
| b. | summer air temperatures | d. | wind velocity |

ANS: A PTS: 1