



2022 REGIONAL ENVIROTHON

Forestry Test (25 total points)

INSTRUCTIONS: Write your answers on the Respondent Sheet.

MATCHING: Match the term to the description that best fits.

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|------------------------|-----------------------|-------------------------|
| A. Xylem | F. Heartwood | K. Secondary Succession |
| B. Cambium | G. Root cap | L. Meristem |
| C. Bark | H. Silviculture | M. Alternate |
| D. Sapwood | I. Phloem | N. Opposite |
| E. Species composition | J. Primary Succession | O. Trunk |

- _____ Main support of the tree and tree growth; it contains transport vessels for water, nutrients, and sugars
- _____ Found just below the bark; transport water and nutrients up the tree
- _____ Transports sugars from leaves to roots and other parts of the plant
- _____ Area of growth
- _____ Region of tissue expansion that occurs at the tips of both twigs and roots
- _____ Where new soil is formed and vegetation must start from a new substrate; can be caused by flooding
- _____ Where a disturbance clears vegetation, but existing soils and seed sources still exist on the site; this can be caused by fires
- _____ Science of controlling the establishment, growth, composition, health, and quality of forests and woodlands
- _____ Measurement of the different types of trees located within a particular area
- _____ Branching pattern unique to trees such as maple, ash, dogwood, and buckeye

MULTIPLE CHOICE: Select the best possible answer from those provided.

- The native insect two-lined chestnut borer (*Agrilus bilineatus*) is an example of _____.
 - An invasive pest
 - Abiotic factor
 - Biotic factor
 - A parasite

12. Which of the following trees has compound leaves?
- Sugar maple (*Acer saccharum*)
 - Red oak (*Quercus rubra*)
 - Grey dogwood (*Cornus racemosa*)
 - Green ash (*Fraxinus pennsylvanica*)
13. The living outermost portion of a woody stem or branch is _____.
- Heartwood
 - Pith
 - Growth rings
 - Sapwood
14. Trees provide the following benefits, EXCEPT for _____.
- Increasing storm water
 - Reducing energy costs
 - Improving air quality
 - Intercepting rainfall
15. What are some of the abiotic factors affecting the growth of trees?
- Bacteria
 - Wind
 - Water
 - Fungi
 - Sunlight
 - All of the above
 - B, C, & E
16. Which one of the following trees disperse their seed using wind?
- Cottonwood
 - Cherries
 - Walnuts
 - Oaks
17. Forest composition changes with soil type, elevation, and slope aspect. Which slopes will have tree species adapted to hot and dry conditions?
- South and West
 - East and South
 - North and East
 - West and North
18. Community tree inventories provide which of the following data?
- Species diversity
 - Maintenance recommendations
 - Tree prices
 - Both A & B

19. Black walnut, red oak, and white ash trees are all considered _____.
- Softwoods
 - Canopy trees
 - Hardwoods
 - Conifers

MATCHING: Match the term to the description that best fits.

- White Oak
- Red Oak
- Black Walnut
- Kentucky Coffeetree
- Silver Maple
- Sugar Maple
- Eastern Red Cedar
- Eastern White Pine
- Blue Spruce

- _____ Produces short, wide seed pods. The seeds were previously steeped to make a drink by Indigenous cultures
- _____ Produces a samara seed and is found naturally in bottomland forests; bats often shelter under its loose bark
- _____ Is only evergreen native to all parts of Iowa, and despite its name is actually a Juniper
- _____ Second in lumber value and is used for making barrels of various kinds, but a higher value is derived from the seed that is used by over 45 species of wildlife in Iowa
- _____ Has doubly compound leaves and produces a large nut. The roots produce toxins which can deter tomatoes, lilac, and apples if planted nearby
- _____ Has light green needles that come in bundles of 5 and are soft and flexible

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