2024 Regional Iowa Envirothon Forestry Test - (25 total points)

MATCHING: Match each term to the correct type of prairie ecosystem description. (Questions 1-3)

A. Remnant B. Restoration C. Reconstruction

_____1. A planted prairie. Usually, a planting of grasses and forbs onto land that had the native vegetation removed (i.e. agricultural land). This usually will not have the plant diversity of the other systems described here.

_____2. A pre-settlement native plant community (i.e. prairie). A plant community that has survived on a site to the present day

_____3. A native ecosystem that has been taken over to some degree by another plant community. Management is being used to restore pre-settlement vegetation. This system is often supplemented by planting seeds from plants that may have grown on the site previously and may involve removing a plant community that has taken over since pre-settlement

4. Prairies are an ecosystem that includes
A. flora (grasses and flowering plants or forbs).
B. fauna (vertebrates and invertebrates).
C. soil which has been shaped by frequent fire.
D. more of its living mass, below ground than we can see above ground.
E. all of these are correct.

5. Tree root hairs _____.
A. only function from just a few weeks to up to nearly two years and then are sloughed off
B. grow into large permanent roots
C. mature into structures called mycorrhizae
D. all of these are correct

6. Which hardwood tree species would be identified as having alternate, compound leaves with thorns or spines?
A. Ashes (*Fraxinus sp.)*
B. Black Locust (*Robinia pseudoacacia*)
C. Black Walnut (*Juglans nigra*)
D. all of these are correct

7. What is the best time for pruning arborvitaes, yews, and junipers?
_____.
A. before new growth begins in the late dormant season
B. fall and winter
C. after new growth begins in the spring
D. early summer

8. What is the correct name for this tree species? (see pictures)
A. Ash (*Fraxinus sp.)*
B. Black Locust (*Robinia pseudoacacia*)
C. Black Maple (*Acer nigrum*)
D. Shagbark Hickory (*Carya ovata*)






Source: ISU Publication, SUL-21 --- January 2011

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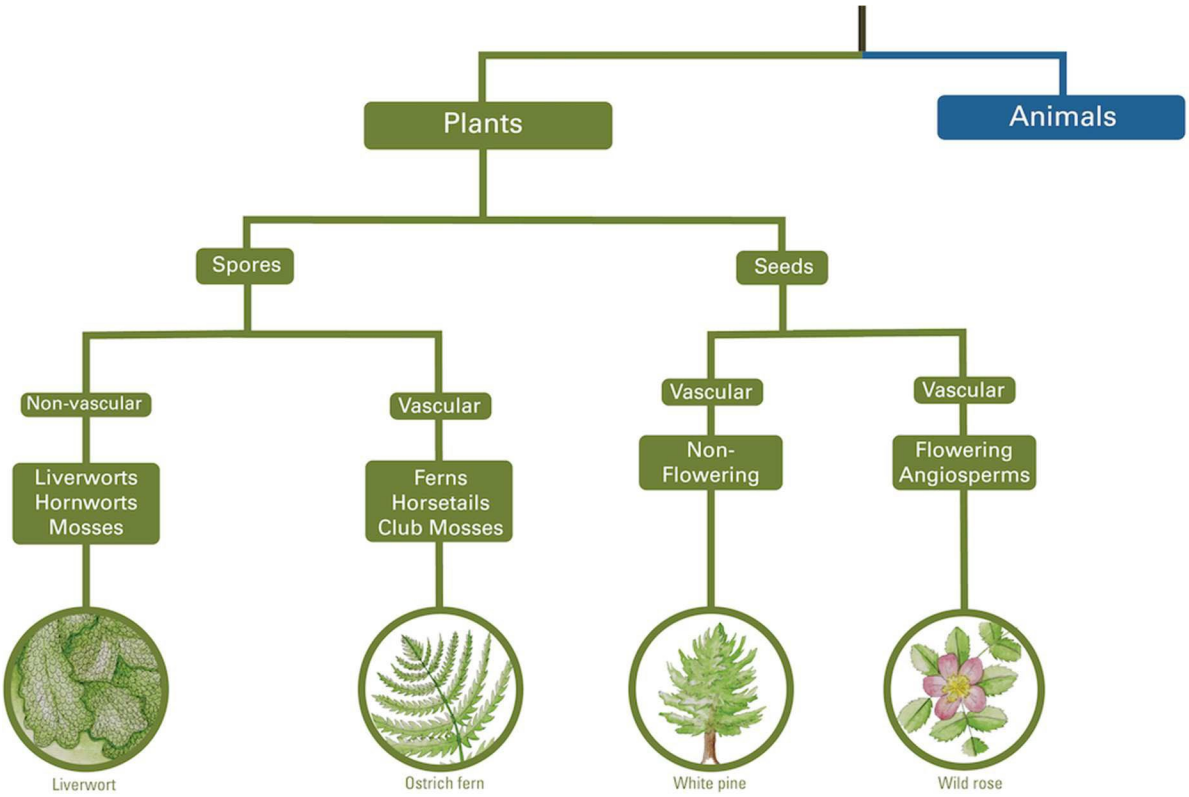
9. Although insects are the most important food source for forest birds in Iowa, the fruits of flowering plants are also an important food source for many bird species. These fruits include soft fleshy fruits, as well as nuts and acorns and are referred to as _____.
A. flora
B. mast
C. mycorrhizae
D. sepal

10. What species of forest bird is pictured below?
A. Red-headed woodpecker
B. Red-tailed hawk
C. Scarlet tanager
D. Black-winged Redbird
E. Baltimore Oriole



11. The wild rose is a _____. (see diagram)

A. non-flowering, vascular, seed producing plant
B. flowering, vascular, seed producing plant
C. non-flowering, non-vascular, spore producing plant
D. non-flowering, vascular, spore producing plant
E. flowering, non-vascular, seed producing plant



12. What species of tree produces these seeds that are enclosed in a fruit that has wings? (see picture)

A. ash
B. elm
C. maple
D. oak



13. When prairie once dominated the Iowa landscape, this was the only tree species commonly found growing in this grassland habitat. This same species was also the most common tree in Iowa savannas, where widely-spaced trees were mixed with prairie plants. What species of tree was this?
A. bur oak
B. red oak
C. silver maple
D. sugar maple

14. Trees often occupy low areas along streams and rivers which are known as _____areas.
A. riparian
B. savanna
C. understory
D. upland

15. _____result in trees being more abundant in the east, southeast, and northeast parts of the state of Iowa.
A. Invasive species and rainfall
B. Johnny Appleseed and rainfall
C. Rainfall and topography
D. Topography and invasive species

16. Iowa savannas are described as
A. prairie mixing with forest in transitional areas where trees are widely spaced
B. areas that often have only 20-25 trees per acre
C. hosting a tremendous diversity of plant and animal species
D. having many bur oak that is well-adapted for surviving dry seasons and prairie fires
E. all of these are correct

17. What is the animal that eats a wide variety of foods including berries, insects, small animals, carrion, and dead animals and is Iowa's only marsupial?
A. eastern mole
B. squirrels
C. raccoons
D. Virginia opossums

18. Managing wildlife populations such as _____, through regulated hunting seasons ensures these animals are not overharvested and helps prevent problems in the forest caused by overpopulation, such as over browsing tree seedlings or forest wildflowers.
A. white-tailed mice, rabbits and wild turkeys
B. white-tailed deer, rabbits and wild turkeys
C. white-tailed deer, raccoons and pheasants
D. Virginia opossums, white-tailed deer and pheasants

19. Which of the following is a forest stewardship practice that can improve growing conditions and overall plant health in a stand of trees?
A. vine removal and tree and shrub planting
B. elimination of grazing and weed tree removal
C. prescribed fire and crop tree release
D. all of these

20. What is the name of this invasive shrub that threatens Iowa forests? (see picture)
A. barberry
B. burning bush
C. common buckthorn
D. honeysuckle



21. In Iowa, most of the larger forested areas and tree plantings associated with farmsteads and city canopies are _____.
A. managed by the Governor's Council of Forestry
B. managed by the USDA Forest Service
C. part of state and federal park system
D. privately owned
E. owned by county conservation boards

22. Which of the following is NOT a place where trees are commonly found in Iowa?
A. Windbreaks
B. Woodlots
C. Riparian areas along rivers
D. Well managed prairie remnants
E. Urban areas

23. What is the name for this spring ephemeral that is commonly found in Iowa's forests? (see picture).
A. bloodroot
B. Dutchman's breeches
C. hepatica
D. wild red columbine



24. Through a process called _____, large areas of timber are broken up, or fragmented, into the patchwork of smaller forests which are more common today than in the past. This increases the effects of invasive plants, wind damage, and chemical damage. This also impacts the quality of habitat for wildlife that need large unbroken forests.
A. parcellation
B. frilling
C. Setophaga cerulea
D. silviculture

25. How many trees would be planted on one acre, if the trees are spaced 10 feet apart in rows that are spaced 15 feet apart? (one acre = 43,560 sq. ft.)
A. 174
B. 290
C. 1,742
D. 2,900
E. 17,420