SCIENCE OLYMPIAD FORESTRY 2012

Please Read the Following:

- Use the corresponding answer sheet.
- The questions on this test are based on the **2012 Official Michigan Tree List.**
- This test may be very time-consuming. Make sure you have at least 20-40 minutes to complete the test although it may not take the full time given to you.
- There will be 24 ID questions and 8 extra credit questions.

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You May Use the Following:

- One 8.5" x 11" two-sided page of notes
- Up to two commercially published field guides (you may tab the guides with a limit of 3 words per tab).
- One copy of the 2012 Official Michigan Tree List
- You may write on any of the above.

PLEASE DO NOT WRITE ON THE TEST ITSELF……RECORD ALL YOUR ANSWERS ON THE ANSWER SHEET PROVIDED!!

1. Identify this specimen

A. What is this tree commonly called?

(a) Striped Maple
(b) Poison Sumac
(c) Honey Locust
(d) Eastern Red Cedar

B. In which states would you most likely find this tree?

(a) Arizona and California
(b) Montana and Oklahoma
(c) Pennsylvania and New York
(d) Illinois and Missouri

2. Identify this specimen

A. What type of leaf arrangement does this plant have?

(a) Whorled
(b) Simple
(c) Opposite
(d) Alternate

B. What family is this tree from?

(a) Quassia family
(b) Pine family
(c) Cypress family
(d) Juniper family

3. Identify this specimen

A. The flowers of this tree bloom in:

(a) June
(b) July
(c) April or May
(d) March

I.

II.

III.

IV.

B. **Which photo (I, II, III, or IV) is a picture of the bark of this plant?**

(a) I
(b) II
(c) III
(d) IV

4. Identify this specimen.

A. True or false: This tree is monoecious (male and female flower occur on the same tree)

(a) True
(b) False

B. This tree is a member or which family:

(a) Cashew
(b) Beech
(c) Buckeye
(d) Walnut

5. Identify this specimen.

A. This tree is part of the:

(a) Ash Family
(b) Pecan Family
(c) Elm Family
(d) Dogbane Family

B. The "warts" on the bark of this tree are:

(a) a projection of cork.
(b) a sign of a disease on the bark of the tree.
(c) a fruit on the tree
(d) burrows from insects in the tree

6. Identify this specimen

A. What is this tree commonly called?

(a) Witch-hazel
(b) Flowering Dogwood
(c) Sweetgum
(d) Gingko

B. The shape of the leaves on this tree are considered:

(a) Ovate or elliptical
(b) Deltoid
(c) Linear or rectangular
(d) Orbicular

7. Identify this specimen.

A. Which of the following is NOT true for this tree:

(a) During wet springs, leaf anthracnose is a common cosmetic disease that occurs on the leaves.
(b) An exotic Asian pest, the Emerald Ash Borer, has been known to attack this tree.
(c) This tree is monoecious.
(d) The leaves are opposite, pinnately compound.

B. This tree would be most likely found in:

(a) New York
(b) Minnesota
(c) Oregon
(d) Utah

8. Identify this specimen.

A. The shape of these leaves is:

(a) Orbicular
(b) Obovate
(c) Deltoid
(d) Ovate

B. This tree originated in:

(a) China
(b) Australia
(c) Spain
(d) Canada

9. Identify this specimen.

A. The fruit of this tree is considered a:

(a) berry
(b) drupe
(c) pome
(d) pod

B. True or False: This tree has the largest leaves of any tree in eastern North America.

(a) True
(b) False

10. Identify this specimen

A. What is the common name for this tree?

(a) Chinquapin Oak
(b) Sassafras
(c) Butternut
(d) Siberian Elm

B. Catkins are:

(a) a strand of tiny, unisexual flowers
(b) a type of nut
(c) wood-boring insects
(d) another name for tree bark

11. Identify this specimen.

A. Which one of the following is NOT true about this tree?

(a) It is virtually disease and pest free
(b) The common name of this tree comes from the state is most often found in.
(c) It is highly adaptable to a wide range of soils and moisture levels.
(d) Most parts of the tree emanate a sticky white sap that contains latex when it is wounded or cut.

B. This tree is a native of:

(a) Michigan, Illinois, and Ohio
(b) North Dakota, South Dakota, and Montana
(c) Florida, Louisiana, and Alabama
(d) Arkansas, Texas, and Oklahoma

12. Identify this specimen

A. This tree is the state tree of

(a) Ohio
(b) Tennessee
(c) Virginia
(d) New Hampshire

B. The flowers of this tree resemble

(a) Roses
(b) Peonies
(c) Orchids
(d) Tulips

13. Identify this specimen.

A. The fruit of this tree is considered a

(a) berry
(b) drupe
(c) pome
(d) pod

B. The leaves of this tree can be considered

(a) ovulate
(b) rounded
(c) elliptical
(d) linear

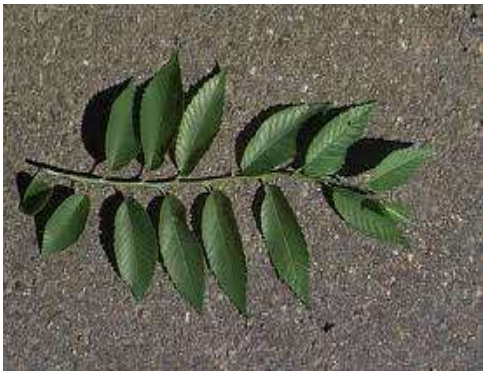
14. Identify this specimen.

A. What is this tree commonly called?

(a) Slippery Elm
(b) Shumard Oak
(c) Quaking Aspen
(d) Black Spruce

B. What type of tree is this?

(a) deciduous
(b) coniferous
(c) amorphous
(d) none of the above



15. Identify this specimen.

A. This tree is native to

(a) Hawaii
(b) South Africa
(c) Central Asia
(d) Australia

B. What is this tree commonly called?

(a) American Elm
(b) Siberian Elm
(c) Slippery Elm
(d) None of the above

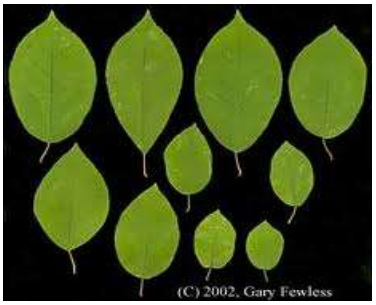
16. Identify this specimen.

A. The foliage of this tree turns red in

(a) Spring (b) Summer
(c) Winter (d) Fall

B. Which nut is this plant a family of?

(a) peanut
(b) cashew
(c) almond
(d) pistachio



17. Identify this specimen.

A. This species is considered a(n)

(a) angiosperm
(b) gymnosperm
(c) endosperm
(d) conifer

B. This specimen is from the class of

(a) monocots
(b) dicots
(c) tricots
(d) None of the above

18. Identify this specimen.

A. This tree could be considered

(a) Semi-deciduous
(b) marcescent
(c) evergreen
(d) deciduous

B. The fruit of this tree is a type of

(a) pod
(b) achene
(c) capsule
(d) key

19. Identify this specimen.

A. The leaf shape of this tree is considered

(a) lobed
(b) obtuse
(c) deltoid
(d) whorled

B. The leaf venation of this tree is considered

(a) arcuate
(b) palmate
(c) parallel
(d) pinnate

20. Identify this specimen.

A. What type of fruit does this plant have?

(a) achene
(b) This plant has no fruit.
(c) drupe
(d) berry

B. Which description of this plant's leaf fits the best?

(a) Palmetely compound
(b) Palmately lobed
(c) Pinnately compound
(d) Pinnately lobed

21. Identify this specimen.

A. What type of fruit does this tree produce?

(a) acorn
(b) pod
(c) achene
(d) capsul

B. How would you characterize the shape of the leaves?

(a) Elliptical to lanceolate
(b) Bipinnately compound
(c) Spatulate to cordate
(d) Ovate to oblong

22. Identify this specimen.

A. This is the state tree of

(a) Minnesota
(b) Connecticut
(c) Pennsylvania
(d) New Hampshire

B. Where is this tree typically found?

(a) Rocky ridges, ravines, and hillsides
(b) Cold and dry tundra/taiga areas
(c) Stream banks and floodplains
(d) Coniferous forests

23. Identify this specimen.

A. How many needles typically appear per fascicle?

(a) 3
(b) 4
(c) 5
(d) 6

B. This is the state tree of

(a) Vermont
(b) Rhode Island
(c) New York
(d) Maine

24. Identify this specimen

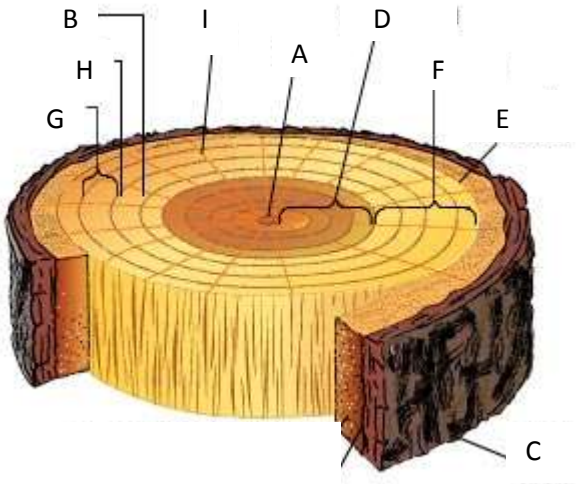
A. What color does this tree's leaves turn in the fall?

(a) Reddish orange
(b) brown
(c) stays green
(d) Yellow

B. How would you describe the venation of the leaves?

(a) Longitunal
(b) Pinnate
(c) Parallel
(d) Dichotomous

General Tree Knowledge- Extra Credit



Use the diagram above to answer questions 26-28.

25. What is the name of part A?
    a. Pith
    b. Outer Bark
    c. Secondary phloem
    d. Sapwood

26. What is the name of part B?
    a. Early wood
    b. Vascular cambium
    c. Secondary phloem
    d. Heartwood

27. Part C is composed of:
    a. small cells with thick walls
    b. resin
    c. dead tissue
    d. xylem

Match the part of the leaf with the correct description.

_____ 28. Petiole	A. A rib-like vessel in the blade of the leaf, usually off the midrib.
_____ 29. Margin	B. The central vein of the leaf.
_____30. Vein	C. Attaches the leaf blade to the stem.
_____ 31. Midrib	D. A space or indentation between the lobes.
_____ 32. Sinus	E. This can have small serrations, points or pockets.