

NAME: _____

Answer as concisely as possible. Grading is on a 100 point scale with 105 total points possible.

1. *Translate the following words used in plant taxonomic names into English (1 point each, 10 points total)*

grandis:

bifolia:

deltoides:

decidua:

triloba:

montana:

pungens:

cordifolia:

radicans:

carya:

2. *Define the following terms. (1 points each, 4 points total)*

Dendrology:

Tree:

Habit:

Silvics:

Points: _____

3. *Draw a twig and label at least 9 different parts, using correct terminology. Only twig features will earn you any credit. (1 point each, 9 points total)*

4. *List each type of dry fruit, and give one example of a tree with that type of fruit. (1 point each, 12 points total).*

Points: _____

5. Draw a leaf or portion thereof that illustrates each of the following terms related to leaf morphology. Identify the part of the leaf to which the term applies. (2 points each, 10 points total)

EMARGINATE

Part of Leaf:

REVOLUTE

Part of Leaf:

CUNEATE

Part of Leaf:

ORBICULAR

Part of Leaf:

INCISED

Part of Leaf:

6. *You find a flower and see that it is missing stamens, but has all three other major floral parts. (5 points total)*

A) *What are the three major parts it does have? (1 point each)*

B) *Give me two different terms we could use to describe the arrangement of this specific flower? (1 point each)*

7. *Define or draw the following terms related to cones. (1 point each, 4 points total)*

Umbo:

Apophysis:

Scale:

Serotinous:

8. *Distinguish each of the following pairs (2 points each, 6 points total)*

Soft versus hard pines:

White versus red oaks:

True versus pecan hickories:

Points: _____

9. From a taxonomic perspective, distinguish the term SPECIES from SPECIFIC EPITHET. (1 point)

10. Define and distinguish the following acronyms. (1 point each, 4 points total)

spp.

sp.

ssp.

var.

11. Identify the 5 BEST resources, online or offline, you could use to identify an unknown species (1 point each, 5 points total)

12. Identify and correct errors in the scientific and common names in the sentences below. (1 point each, 5 points total)

My favorite species is Bur Oak. Its scientific name is *quercus macrocarpa*. Bur Oak is in the Fagaceae family.

13. Name two types of **dichotomous** keys that are commonly used. (1 point each, 2 points total)

Points: _____

14. Use the below dichotomous key to demonstrate how you would identify a southern magnolia specimen. **Circle** your choices at each step on the far right, and circle the correct species. (12 points total)

- 1. Needle-like or scale-like leaves.....2
- 1. Broad leaves.....4
 - 2. Needles on deciduous branchlets.....species A
 - 2. Needles in fascicles.....3
- 3. Needles in fascicles of 3, < 15 cm longspecies B
- 3. Needles in fascicles of 3, > 15 cm long.....species C
 - 4. Leaf arrangement opposite5
 - 4. Leaf arrangement alternate.....7
- 5. Buds a dark maroon color.....species D
- 5. Buds tan on twigs with tan lenticels.....6
 - 6. Leaves aromatic.....species E
 - 6. Leaves have no distinct aroma.....species F
- 7. Leaves compound.....8
- 7. Leaves simple.....10
 - 8. Prickles present on twigs and leaves.....9
 - 8. Prickles absent on twigs and leaves.....species G
- 9. Leaves singly pinnately compound.....species H
- 9. Leaves tri-pinnately compound.....species I
 - 10. Form most typically a single-stemmed tree.....11
 - 10. Form most typically a multi-stemmed shrub.....14
- 11. Leaves lobed.....12
- 11. Leaves unlobed.....13
 - 12. Bristle tips present on lobes.....species J
 - 12. Bristle tips absent on leaves.....species K
- 13. Leaf back white in color.....species L
- 13. Leaf back rust colored.....species M
 - 14. Leaf has apparent glands on top or bottom surfaces.....15
 - 14. No apparent glands on either top or bottom of leaves.....species N
- 15. Glands are only on the top surface of leaves.....species O
- 15. Glands both above and below the leaf.....species P

15. Use the below dichotomous key to demonstrate how you would identify a devil's walkingstick specimen. **Circle** your choices at each step on the far right, and circle the correct species. (10 points total)

- 1. Needle-like or scale-like leaves.....2
- 1. Broad leaves.....4
 - 2. Needles on deciduous branchlets.....species A
 - 2. Needles in fascicles.....3
- 3. Needles in fascicles of 3, < 15 cm longspecies B
- 3. Needles in fascicles of 3, > 15 cm long.....species C
 - 4. Leaf arrangement opposite5
 - 4. Leaf arrangement alternate.....7

Points: _____

5. Buds a dark maroon color.....species D
5. Buds tan on twigs with tan lenticels.....6
6. Leaves aromatic.....species E
6. Leaves have no distinct aroma.....species F
7. Leaves compound.....8
7. Leaves simple.....10
8. Prickles present on twigs and leaves.....9
8. Prickles absent on twigs and leaves.....species G
9. Leaves singly pinnately compound.....species H
9. Leaves tri-pinnately compound.....species I
10. Form most typically a single-stemmed tree.....11
10. Form most typically a multi-stemmed shrub.....14
11. Leaves lobed.....12
11. Leaves unlobed.....13
12. Bristle tips present on lobes.....species J
12. Bristle tips absent on leaves.....species K
13. Leaf back white in color.....species L
13. Leaf black rust colored.....species M
14. Leaf has apparent glands on top or bottom surfaces.....15
14. No apparent glands on either top or bottom of leaves.....species N
15. Glands are only on the top surface of leaves.....species O
15. Glands both above and below the leaf.....species P
- 16. Create your own indented dichotomous key for the following species using **ONLY TWIG FEATURES**. (6 points) American elm, white fringetree, white ash, Shumard oak, white oak**