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)*

alata:

flexilis:

monophylla:

incana:

biflora:

cordifolia:

grandidentata:

velutina:

concolor:

palustris:

2. *Define the following terms. (2 points each, 8 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 INDEHISCHENT** fruit, and give one example of a tree with that type of fruit. (1 point each, 6 points total).*

5. *List the **best** online resource we discussed in class that you would use for each of the following scenarios. (1 point each, 3 points total)*

Determining if a specific epithet you read in an older textbook has been changed to the name you learned in lab for a tree.

Identifying an unknown specimen you found while vacationing in Georgia.

Writing a technical report for your ecology class on western larch.

Points:_____

6. *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)*

DELTATE

Part of Leaf:

ACUMINATE

Part of Leaf:

AURICULATE

Part of Leaf:

CRENATE

Part of Leaf:

CLEFT

Part of Leaf:

Points:_____

7. *Define or draw the following terms related to cones. (2 points each, 8 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:

9. *From a taxonomic perspective, distinguish the term SPECIES from SPECIFIC EPITHET.* (*2 points*)

10. *Define and contrast the following acronyms. (1 point each, 3 points total)*

spp.

sp.

ssp.

Points:_____

11. *Name one type of **dichotomous** key that is commonly used.* (*1 point total*)

12. *List 5 different orders of forest trees that we discussed in the taxonomy lecture, and provide one fact or example species for each. (2 points each, 10 points total)*

13. *The next two questions feature the same taxonomic key. There are a number of design mistakes intentionally included in this key. Identify those mistakes based on what we discussed in class. Hint: the mistakes are in the design of the key, not in the group of species it was created for or that it only identifies each plant as 'Species A'. (1 point each, 5 points total)*

Points:_____

14. *Use the below dichotomous key to demonstrate how you would identify a shagbark hickory tree.* ***Circle*** *your choices at each step on the far right, and circle the correct species. (8 points total)*

1. Species has broadleaf type leaves……..2
1. Species has needles or scale-like leaves……..3
    2. Species has compound leaves……4
    2. Species has simple leaves……5
3. Species has scale-like leaves……..6
3. Species has needle-like leaves……7
    4. Species has palmately compound leaves……8
    4. Species has pinnately compound leaves……9
5. Species has opposite leaf arrangement……10
5. Species has alternate leaf arrangement……..11
    6. Species has woody cones……12
    6. Species has leathery cones……13
7. Species has 2 or 3 needles per fascicle……..14
7. Species has 5 needles per fascicle……15
    8. Species has square, red to orange terminal buds…… Species A
    8. Species is a woody climbing vine……..Species B
9. Species is odd pinnately compound……..Species C
9. Species is even pinnately compound……Species D
    10. Species has pointed brown terminal buds……Species E
    10. Species has stout twigs……Species F
11. Species has cordate leaf shape……..Species G
11. Species has palmately lobed leaf……..Species H
    12. Species has evergreen foliage……..Species I
    12. Species has deciduous foliage……Species J
13. Cones < 1 cm in diameter……Species K
13. Cones > 1 cm in diameter……..Species L
    14. Species has large, fuzzy white terminal buds……Species M
    14. Species has small, brown terminal buds……..Species N
15. Species has uninodal branching……Species O
15. Species does not have uninodal branching……..Species P

15. *Use the below dichotomous key to demonstrate how you would identify Florida maple specimen.* ***Circle*** *your choices at each step on the far right, and circle the correct species. (8 points total)*

1. Species has broadleaf type leaves……..2
1. Species has needles or scale-like leaves……..3
    2. Species has compound leaves……4
    2. Species has simple leaves……5
3. Species has scale-like leaves……..6
3. Species has needle-like leaves……7
    4. Species has palmately compound leaves……8
    4. Species has pinnately compound leaves……9
5. Species has opposite leaf arrangement……10
5. Species has alternate leaf arrangement……..11

Points:_____

6. Species has woody cones……12
6. Species has leathery cones……13
7. Species has 2 or 3 needles per fascicle……..14
7. Species has 5 needles per fascicle……..15
8. Species has square, red to orange terminal buds…… Species A
8. Species is a woody climbing vine……Species B
9. Species is odd pinnately compound……..Species C
9. Species is even pinnately compound……Species D
10. Species has pointed brown terminal buds……Species E
10. Species has stout twigs……Species F
11. Species has cordate leaf shape……...Species G
11. Species has palmately lobed leaf……..Species H
12. Species has evergreen foliage……..Species I
12. Species has deciduous foliage……Species J
13. Cones < 1 cm in diameter……Species K
13. Cones > 1 cm in diameter……...Species L
14. Species has large, fuzzy white terminal buds……Species M
14. Species has small, brown terminal buds……Species N
15. Species has uninodal branching……Species O
15. Species does not have uninodal branching……..Species P

16. *Create a key for the following species. (8 points)*

white ash longleaf pine Shumard oak live oak southern red oak

Points:_____