

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)*

pubescens:

betula:

nigra:

nyssa:

deltoides:

monophylla:

sempervirens:

grandis:

serrulata:

rubens:

2. *Define the following terms. (2 points each, 10 points total)*

Dendrology:

Tree:

Silvics:

Habit:

Distribution:

Points: _____

3. We talked about two primary types of primary growth in trees. (5 points total)

A) What is primary growth? (1 point)

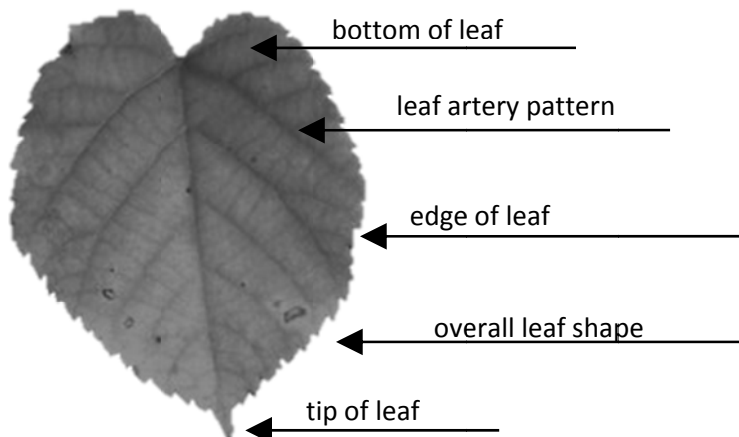
B) What are the two types of primary growth? (1 points each)

C) Compare and contrast the two types of primary growth. (2 points)

4. Label the photo below with at least 5 different parts of a leaf, using correct terminology (not the terminology used in #5). Only leaf features will earn you any credit. (1 point each, 5 points total)



5. Identify the specific morphological term (e.g. deltoid, entire, truncate, cuneate) describing each part of the leaf below indicated and annotated by the arrow. (1 point each, 5 points total)



Points: _____

6. *Draw and label a diagram of a twig in winter condition. Identify as many features as you can (1 point each, 10 points total).*
7. *You find a flower and see that it is missing a pistil, but has all three other major floral parts. (5points 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)*
8. *Compare and contrast hypogeal and epigeal germination. Include an example of one tree species for each mechanism of germination. (2 points)*

9. Complete the table below. Some examples have been given. You fill in the remaining blank cells. (1/2 point per cell, 10 points total)

Complexity	Compound Type	Dry / Fleshy	Term describing if dry fruit split	Name of Fruit Type	Example of Species with this Fruit Type		
Compound	Multiple	Not applicable (N/A)	N/A	N/A			
	Aggregate						
Simple	N/A			Achene			
					<i>Acer</i> spp.		
					Fabaceae		
			N/A			Pome	
							Cherries
							Trifoliolate orange

10. Draw and label a diagram of a pine cone, identifying as many features as you can (5 points)

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

Soft versus hard pines:

White versus red oaks:

True versus pecan hickories:

Hardwoods versus softwoods:

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

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

My favorite species is Red Maple. Its scientific name is *acer rubrum*. Red Maple is in the Aceracea family.

Points: _____

14. Use the below dichotomous key to demonstrate how you would identify a Florida maple specimen.

Circle your choices at each step on the far right, and circle the correct species. (8 points total)

- 1. Needle-like or scale-like leaves.....2
- 1. Broad leaves.....6
 - 2. Needles awn-like or on deciduous branchlets.....3
 - 2. Needles in fascicles.....4
- 3. Needles awn-like, cones < 1 cm in diameter and bluish when mature.....species A
- 3. Needles on deciduous branchlets, cones > 1 cm in diameter and brown when mature.....species B
 - 4. Needles in fascicles of 2 or 3, < 12 cm longspecies C
 - 4. Needles in fascicles of 3, occasionally 4, > 12 cm long.....5
- 5. Cones < 15 cm long, buds brownish.....species D
- 5. Cones > 15 cm long, buds silver-grey.....species E
 - 6. Leaf arrangement opposite or whorled.....7
 - 6. Leaf arrangement alternate.....11
- 7. Leaves compound.....8
- 7. Leaves simple.....10
 - 8. Vine.....species F
 - 8. Tree.....9
- 9. Leaf scar curves around lateral buds.....species G
- 9. Leaf scar circular and below lateral buds.....species H
 - 10. Terminal bud rounded, leaves 3-lobed, fruit matures in spring.....species I
 - 10. Terminal bud pointed, leaves usually 5-lobed, fruit matures in summer.....species J
- 11. Leaves compound.....12
- 11. Leaves simple.....13
 - 12. Typically 5 leaflets, terminal buds elongated.....species K
 - 12. Typically 7 leaflets, terminal buds squat.....species L
- 13. Leaves lobed.....species M
- 13. Leaves unlobed.....species N

15. Use the below dichotomous key to demonstrate how you would identify a river birch specimen.

Circle your choices at each step on the far right, and circle the correct species. (8 points total).

- 1. Needle-like or scale-like leaves.....2
- 1. Broad leaves.....6
 - 2. Needles awn-like or on deciduous branchlets.....3
 - 2. Needles in fascicles.....4
- 3. Needles awn-like, cones < 1 cm in diameter and bluish when mature.....species A
- 3. Needles on deciduous branchlets, cones > 1 cm in diameter and brown when mature.....species B
 - 4. Needles in fascicles of 2 or 3, < 12 cm longspecies C
 - 4. Needles in fascicles of 3, occasionally 4, > 12 cm long.....5
- 5. Cones < 15 cm long, buds brownish.....species D
- 5. Cones > 15 cm long, buds silver-grey.....species E
 - 6. Leaf arrangement opposite or whorled.....7
 - 6. Leaf arrangement alternate.....11
- 7. Leaves compound.....8
- 7. Leaves simple.....10

Points: _____

- 8. Vine.....species F
- 8. Tree.....9
- 9. Leaf scar curves around lateral buds.....species G
- 9. Leaf scar circular and below lateral buds.....species H
 - 10. Terminal bud rounded, leaves 3-lobed, fruit matures in spring.....species I
 - 10. Terminal bud pointed, leaves usually 5-lobed, fruit matures in summer.....species J
- 11. Leaves compound.....12
- 11. Leaves simple.....13
 - 12. Typically 5 leaflets, terminal buds elongated.....species K
 - 12. Typically 7 leaflets, terminal buds squat.....species L
- 13. Leaves lobed.....species M
- 13. Leaves unlobed.....species N

16. Use the below dichotomous key to demonstrate how you would identify a shortleaf pine 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 palmate or pinnately 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 rounded red terminal buds.....Species F
- 11. Species has chordate 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, nondescript terminal buds.....Species N
- 15. Species has uninodal branching.....Species O
- 15. Species does not have uninodal branching.....Species P

Points: _____