FORESTRY STATION

Instructions: You have one (1) hour to complete the following questions. Partial credit may be awarded on some questions, so BE THOROUGH! If you need additional space, write on the back of the sheet and number your answers.

pts

1(a). Provide the common name for the trees labeled #1-#4. *[3 pts each for total of 12]*

#1 _____

#2 _____

#3 _____

#4 _____

1(b). These trees are typical of what forest type? *[3 pts]*

_____

2. Provide the information requested below for the tree labeled #5. Measurement equipment is available from the station monitor and a volume table and current market values are provided on the last page of this test packet. Be sure to include units (meters, acres, etc.). *[4 pts each for total of 16]*

a. DBH _____

b. Total Height _____

c. Volume _____

d. Value _____

3(a). This forested area shows recent fire damage. List two (2) pieces of evidence or signs of fires. *[2 pts each for total of 4]*

1. _____

2. _____

Page 1 Subtotal _____

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Page 1 _____ + Page 2 _____ + Page 3 _____ = Point Total for Forestry _____

Page 4 _____ = Point Total for Special Topic _____

pts

3(b). List three (3) positive and three (3) negative impacts that a major disturbance like fire could have on this site. In your answer you may want to consider tree species distribution, successional stages, understory plants, wildlife, soils, and overall forest health. *[2 pts each for total of 12]*

Positive 1. _____

2. _____

3. _____

Negative 1. _____

2. _____

3. _____

4(a). This area is typical of uneven-aged hardwood forests in central and eastern Oklahoma. Is this forest being actively managed for wood products? *[2 pts]*

YES NO (please circle your answer)

4(b). List two (2) reasons for your answer in question 4(a). *[3 pts each for total of 6]*

1. _____

_____

2. _____

_____

4(c). You have been asked to advise the Research Station on 1,000 acres of forested land similar to this area. List your management recommendations with respect to a specific product, use or environmental benefit and explain why you chose it. *[16 pts]*

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pts

5(a). What tree species accounts for the highest volume of commercially harvested wood products in Oklahoma? *[3 pts]*

5(b). Which region of Oklahoma has the most commercial timberland? *[3 pts]*

5(c). What harvesting method and regeneration system are commonly used on commercial or industrial timberland in the area in Question 5(b)? *[3 pts]*

Harvesting Method _____

Regeneration System _____

6(a). Clearcutting, diameter limit cuts, seed tree cuts and shelterwood cuts have been practiced by foresters for over a century with sound scientific evidence for their use. However, the general public and environmental protection groups dislike some of these practices and have protested heavily to limit or eliminate their use on public lands. List two (2) reasons for opposing these harvesting methods. *[3 pts each for total of 6]*

1. _____

2. _____

6(b). When public perception and science disagree about forest management on <u>public land</u>, managers often must resolve the conflict. Should one perspective be weighted more heavily? *[2 pts]*

YES NO (please circle your answer)

6(c). List three (3) reasons why you chose your answer in Question 6(b). *[4 pts each for total of 12]*

1. _____

2. _____

3. _____

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pts

7(a). Current predictions of global climate change and water availability suggest that human influence on the climate will result in increasing temperatures, longer growing seasons and less available water throughout the United States. Briefly describe the impact these changes may have on forest distribution, forest health and forest growth levels in Oklahoma. *[7 pts]*

7(b). If less water is available in the next 2-3 decades because of global climate change, we will have to make decisions about how best to use limited water supplies. One way to reduce water usage is to harvest trees thereby reducing evapotranspiration rates. Do you think this is an effective method for increasing available water during a shortage? Why or why not? List two (2) results of widespread tree removal on global climate other than its effect on available water. *[8 pts]*

7(c). Climate modeling, a common technique used for predicting the climate months to decades into the future, focuses on defining dozens of individual variables such as land use, forest change, oceanic temperature patterns, etc. Often these variables can not be defined to an absolute amount and are estimated. What effect does this estimation have on the resulting predictions? Does this estimation have the same effect based on the length of time (months vs. decades) for the prediction? Explain. *[10 pts]*

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