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2013 California Envirothon Forestry Station Test Total= 100 points

Please write your team name on the top of EACH page. You may un-staple the test to work on the questions in any order, but pages should be in the correct order when the test is turned in. You may choose to split your team and work on several questions at once or work on them together. With multiple-choice questions, circle the one letter corresponding to the correct answer- unless instructed to circle all that apply (#4 only).

1. The Integrated Hardwood Range Management Program (IHRMP), established in 1986, was a collaborative effort among state resource agencies to address which issue?

(8 points)

a. Declining market demand (merchantable timber/ other wood products) for blue oaks b. Decline in grazeable forage due to vigorous blue oak reproduction and spread

c. Concern that several of the state's native oak species were not regenerating adequately d. Endangered species habitat relationship to oak canopy and associated understory

2. (T/F) Most of the blue oak woodland inCA occurs on state- or federally-owned public land: (4 points)

a. True b. False

3. At what height do unprotected blue oak saplings become relatively resistant to browsing by livestock: .

(2 points)

a. 1meter (3.3 ft)

b. 1.5 meters (4.9 ft)

c. 2 meters (6.5 ft)

d. 2.5 meters (8.2 ft)

4. Of the trees that are common to the SierraN evada Mountains, name the trees that you would expectto find as you go up in elevation from this site (circle all that apply):

(3 points each correct answer *f* minus -2 points each incorrect answer)

a. Ponderosa pine b. Sitka spruce

c. CA Black oak d. Douglas fir

e. Loblolly pine f. Incense cedar g. Coulter pine

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5. You are measuring a grey pine tree with the percent scale side of a clinometer. However, due to the surrounding smaller trees you cannot get a good view to the top of the tree. To get a better view, you measure out 100 feet (horizontal equivalent) downhill from the tree. The reading you get atthe base of the tree is (8%). The reading to the top of the tree is (64%).

(6 Points)

The height of the tree is feet

6. Using the long measuring tool that resembles a wide wooden ruler, measure the Diameter at

Breast Height (DBH) of the tree marked with the pink flagging (estimate to nearest 1/2 inch). (5 Points)

+*1-* 112 or 1inch - 5 points

+*1-* 1or 1-1/2 inches- 4 points

+*1-* 1-1/2 or 2 inches - 3 points

*+I-* 2 or 2-1/2 inches- 2 points

*+I-* 2-1/2 or 3 inches- 1point

The diameter of the tree is inches

7. Using the same measuring tool as above, measure the height of the same tree (the one with pink flagging)

**(5 Points)**

+ /- 1or 2 feet= 5 points

*+I-* 3 or 4 feet- 4 points

*+I-* 5 or 6 feet= 3 points

*+I-* 7 or 8 feet= 2 points

*+I-* 9 or 10 feet= 1 point

The height of the tree is feet

8. What is the name of the forestry measurement tool used in #6 and #7 above?

**(5 points)**

a) Timber Stick

b) Diameter Stick c) Biltmore Stick d) Scribner Stick

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9. Using the clinometer, what is the total height (to the nearest foot) of the tree marked with blue flagging? Use either the percent or topographic scale, making sure to measure out from the correct horizontal distance that is appropriate for either method:

(5 Points)

+/-1or 2 feet- 5 points

*+I-* 3 or 4 feet- 4 points

*+I-* 5 or 6 feet- 3 points

*+I-* 7 or 8 feet- 2 points

*+I-* 9 or 10 feet -1 point

The height of the tree is feet

10. Using the tape measure provided, measure the diameter of the tree with the blue flagging

(measure to nearest 1/10 inch)

(5 points)

+/-1/10 or 2/10 inch- 5 points

*+I-* 3/10 or 4/10 inch- 4 points

*+I-* 5/10 or 6/10 inch- 3 points

*+I-* 7/10 or 8/10 inch- 2 points

*+I-* 9/10 or 1inch -1 point

The diameter of the tree is inches

11. What is the abbreviated name for the tape measure used in #10?

**(4points)**

a) P-tape b) 2-tape c) T-tape d) D-tape

12. Name the silvicultural system that involves partial harvesting, leaving those trees needed to produce sufficient shade to produce a new age class in a moderate microenvironment

**(8 points)**

a) Seedtree

b) Shelterwood

c) Group-Tree Selection d) Single-Tree Selection

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13. Using the *Section* diagram below, provide a detailed legal description for the square immediately to the north of the square indicated by "X: ; (l.points each entry- 9 points max)

*2*

***2-.1'***

l'

- -

I

*X* I

1/4 ofthe 1/4 ofthe\_---c--1/4 of section 24

14. How many acres (assuming this is flat,·level ground) are in: (4 points each - 12 points max)

Ac Ac Ac

|  |  |
| --- | --- |
| X= |  |
| Y= |  |
| Z= |  |

15. Standing at the tree marked with blue flagging, use the compass to measure the declination to the tree with the pink flagging (sight in on the left side ofthe tree at the approximate DBH).

**(5 points)**

*+I-* 1 or 2 degrees= 5 points

+ /- 3 or 4 degrees = 4 points

+ /- 5 or 6 degrees - 3 points

*+(-* 7 or 8 degrees- 2 points

*+I-* 9 or 10 degrees= 1 point

The declination is

degrees

16. Standing at the same tree (blue flagging), se i:h:e clino ·eter to measure the percent slope between your location and the tree with the pink flagging

**(5 points)**

+ /- 1or 2 degrees = 5 points

*+I-* 3 or 4 degrees- 4 points

*+I-* 5 or 6 degrees - 3 points

+*1-* 7 or 8 degrees = 2 points

*+I-* 9 or 10 degrees -1point