Sample Forestry Test Questions   **Team #**_____

1.   Identify the numbered trees

a) _____   b)   _____

c   _____   d)   _____

e) _____   f)   _____

g) _____   h)   _____

2. a) Measure the height and diameter of tree A (use correct units)
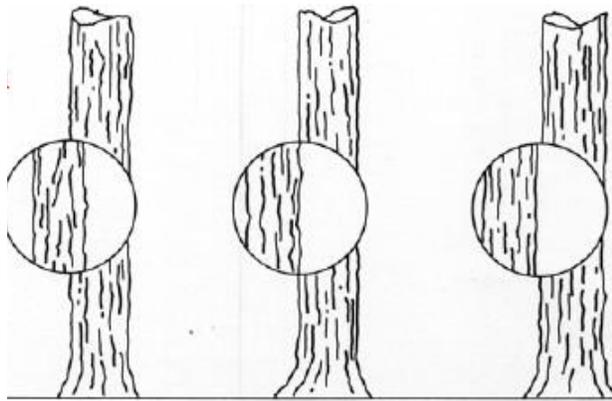
            Height   _____

            Diameter   _____

b) What instrument was used to measure the height?   _____

c) What instrument was used to measure the diameter? _____

3.

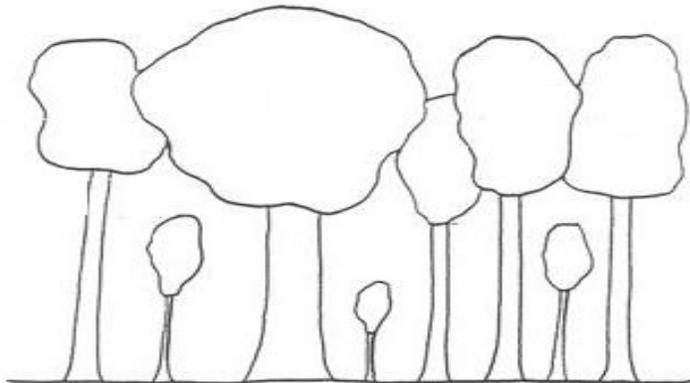   _____   _____   _____

 a) Looking through a wedge prism when doing a forest inventory cruise you will see images
similar to the three above. Indicate, on the line provided, if the tree is IN, OUT or
BORDERLINE.

b) Give one strategy to handle borderline trees in a forest inventory cruise.

_____

4. Indicate the crown class for each tree in the diagram below. The crown classes include:

        D   Dominant

        C   Co-dominant

        I   Intermediate

        S   Suppressed

     ___   ___   ___   ___ ___   ___ ___ ___

5. A landowner has a 10 hectare or 25 acre stand of mature old field white spruce that he/she wants to cut. He/she has decided to plant at a (2 x 2 metre or 6 x 6 foot) spacing. The cost of trees is $300.00/thousand seedlings and the landowner plans on doing the planting.

    a. How many trees will he/she need to buy to plant his harvested area?

    _____

    b) What will be the cost per hectare or cost per acre to plant the harvested area?

    _____

    c) Give two other expenses that the landowner is likely to incur if he/she wants his/her plantation to be successful.

    _____

    _____

6. Indicate the shade tolerance (intolerant, intermediate, tolerant) of the following tree species.

    Tamarack (*Larix laricina*)   _____

    Beech (*Fagus grandifolia*)   _____

    White pine (*Pinus strobus*)

7. A wedge prism with a basal area factor of 2m^2/ha was used to carry out a forest inventory survey of a 10 hectare stand of mixed hardwood/softwood. Data was recorded from 5 points in the stand. The table below gives the tree tally. Use the attached volume table to assist you with your answers.

Sample Point	bF	rS	wS	sM	rM	Total
1	2	4	3	2	1	
2	1		1	2	1	
3			2	2	1	
4	1	1	2	2	1	
5	1		2	2	1	
BA						
Volume						
Avg ht (m)	18	18	18	20	20	

Use the information provided to answer the following questions (use correct units).

a) What is the basal area per hectare for the red spruce (rS) _____

b) What is the total basal area per hectare? _____

c) What would the total basal area per hectare be is a if a prism of basal area factor of 1m²/ha was used? _____

8.   a) There are _____ square meters in one hectare

   b) The basal area of a tree with a 20 cm diameter is _____

   c) The provincial trees for the province of New Brunswick is _____

9. Forest managers have can use a wide variety of silviculture treatments to manage the forest or improve the quality or value of the trees being grown. Choose the correct method or system that defines the treatment that is described.

Silviculture treatments: pruning, clearcut, selection management, seed tree cut, shelterwood, sanitation cut, precommercial thinning

a)   Improve the value of pole-size red pine trees   _____

b)   Create uneven-aged stands   _____

c)   Regenerate white pine under a white pine stand by gradually opening up the crown canopy

                                                            _____

d)   Create an even-aged stand   _____

e)   Remove diseased or insect infested trees   _____

f)   Reduce the density of dense 2-5 metre tall stands from 35 000 stems/hectare to 2500 stems/hectare   _____

10. You have just finished measuring the height of three trees that were located on hilly terrain. All measurements were taken with a hypsometer (Suunto) and you were standing at the correct distance from the tree. The table below gives the readings that were taken directly from the number scale of the Suunto. What are the heights of the three trees that you measured? (6 points)

Tree #	Reading at top of tree	Reading at base of tree	Height of tree
1	+ 15	- 2	_____
2	+ 25	+ 6	_____
3	- 1	- 15	_____