**Part 1: Forest Plot Sampling** **(30 minutes)**

Protocol: Measure all aspects requested below on your assigned plot. Azimuth to each tree should be measured to the tree’s base. Distance to each tree to the tree’s center from the plot center pin.

Then, calculate the stand-level density metrics as listed. Finally, accurately map the locations for each plot tree on the diagram; be sure to label the tree numbers as they were on your plot. Use the space on the back of this sheet to show all of your work in making your calculations.

Plot number: 5 Plot Radius: 10 m Plot Area: 1/32 hectare

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Tree Number** | **Azimuth** | **Distance (0.01 m)** | **DBH (0.1 cm)** | **Live Crown Ratio** |
| 1 | 42 | 8.75 | 30.4 | 95 |
| 2 | 78 | 4.80 | 48.5 | 50 |
| 3 | 125 | 9.50 | 44.1 | 65 |
| 4 | 196 | 6.90 | 25 | 75 |
|  |  |  |  |  |
|  |  |  |  |  |

Metrics:

Trees per hectare: \_\_\_\_128\_\_\_\_\_\_\_\_\_\_

Basal area per hectare (m2): \_\_\_14.7\_\_\_\_\_\_\_\_\_

Median DBH: \_\_\_\_\_37.3\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Average Live Crown Ratio: \_\_\_\_\_71\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 2: GPS Navigation** **(30 minutes)**

Protocol: Using the GPS device provided, follow the steps below to navigate around campus. Make sure that Position format is **UTM UPS** and Map Datum is **NAD83**.Also, the distance should be **Metric** and elevation should be **Feet**.

**Tasks**

1. Walk over to the **Communication Building Sign**. Record the following:

Easting: \_\_\_\_\_\_\_0504263\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Northing: \_\_\_\_\_\_3566155\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Elevation: \_\_\_\_\_\_~2400\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Error: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Navigate to this location: **0504344 3566025**

Describe what you have found:

* + Sign Posting Board

1. Navigate to this location: **0504438 3566160**

Describe what you have found:

* + Emergency phone on quad

1. Navigate to this location: **0504320 3566179**

Describe what you have found:

* + Trash Can

1. What is the azimuth and distance from your last point back to your starting point?
   * 276 deg, 67 m