*Birzeit University*

*Faculty of Engineering and Technology*

*Civil Engineering Department*

SURVEYING Lab ENCE316

Experiment name: Mapping using Total station

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Note : The coordinate for traverse points near University theatre.

**Group A**

| Point | Easting (m) | Northing (m) | Elevation (m) |
|-------|-------------|--------------|---------------|
| A1    | 167483.455  | 152085.730   | 775.560       |
| A2    | 167441.751  | 152139.187   | 772.743       |

Azimuth A1-A2 =

**Group B**

| Point | Easting (m) | Northing (m) | Elevation (m) |
|-------|-------------|--------------|---------------|
| B5    | 167580.866  | 152085.214   | 783.959       |
| B4    | 167571.167  | 152151.186   | 781.069       |

Azimuth B5 - B4  =

**Group C**

| Point | Easting (m) | Northing (m) | Elevation (m) |
|-------|-------------|--------------|---------------|
| C5    | 167568.063  | 152085.684   | 782.884       |
| C4    | 167570.385  | 152152.550   | 781.094       |

Azimuth C5 - C4  =

**Group D**

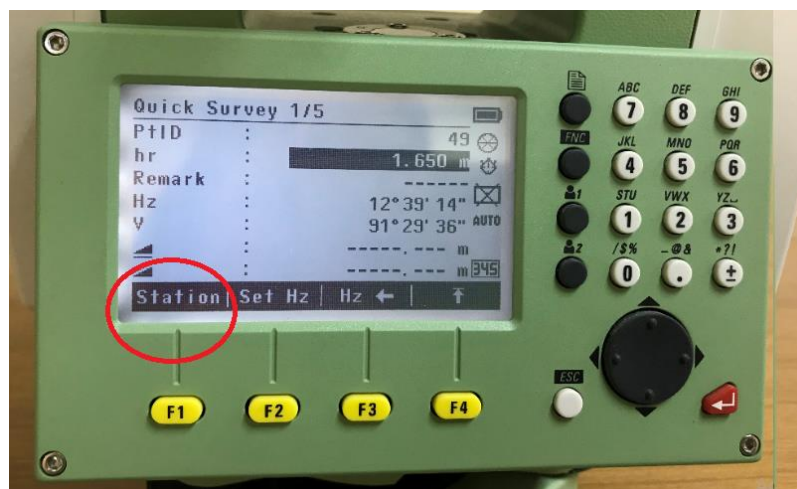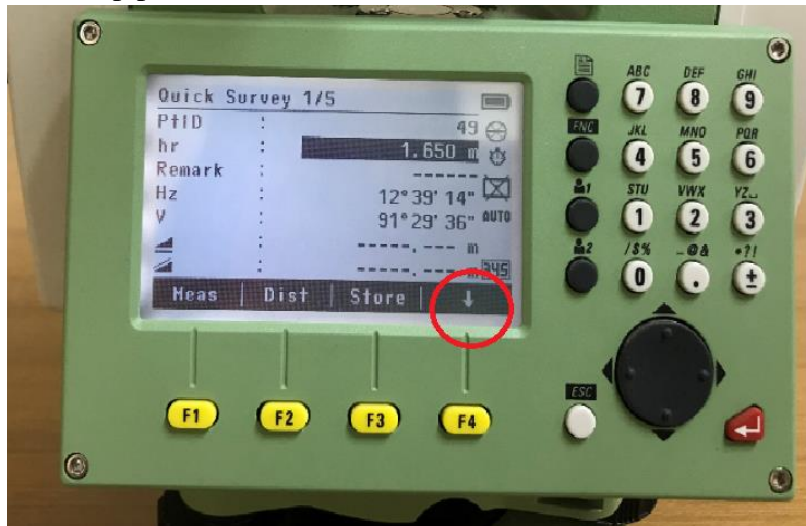| Point | Easting (m) | Northing (m) | Elevation (m) |
|-------|-------------|--------------|---------------|
| D1 | 167489.119 | 152087.082 | 776.097 |
| D2 | 167444.531 | 152135.986 | 772.930 |

Azimuth D1-D2 =

➤ How to start Mapping?
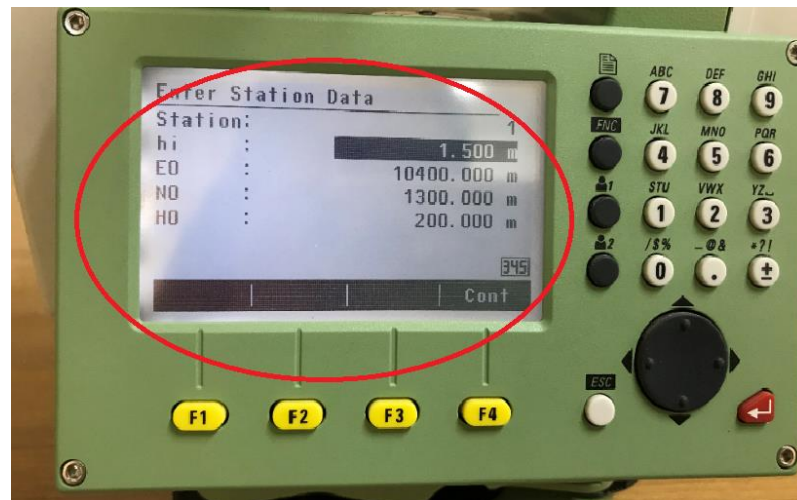1) You have to insert the following Data in the total station:
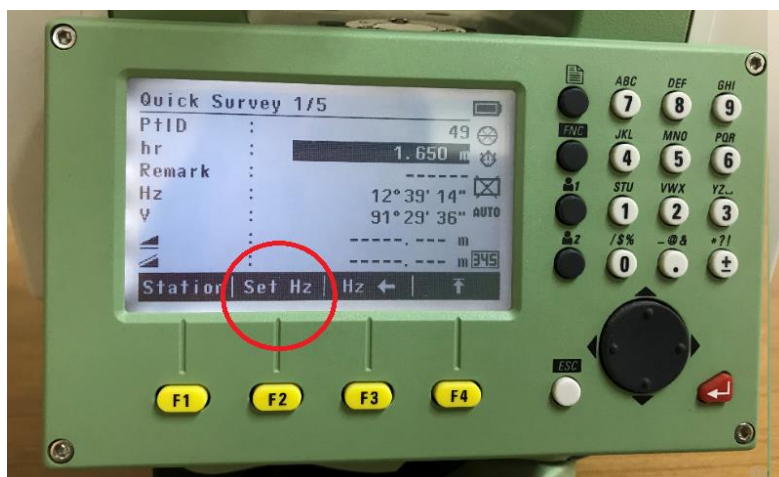  • Height of reflector (hr) : from the main screen (Q-Survey)

- Height of instrument (hi) : station → insert hi
- Coordinates for setup point ($E_0$, $N_0$, $H_0$) : station → insert $E_0$, $N_0$, $H_0$ → cont

2) Direct the total station toward the targeting point (Point with reflector)
   Azimuth: set Hz then insert the calculated azimuth





3) Measure , and check the coordinate of targeted point

- ➢ Submission requirement
    1- Copy of data and sketch
    2- Map for working area ( A3 Paper )