

31046- SURVEYING PRACTICE II

DETAILED SYLLABUS

OBJECTIVE

At the end of the course, Students

- Will have experience in handling surveying equipment's
- Do practical exercises in Theodolite surveying,
- Do Tachometric surveying
- Do surveying using Total station.

LIST OF EXPERIMENTS

PART- A: THEODOLITE SURVEYING

1. Study of a Theodolite - Temporary adjustments – Reading horizontal angles.
2. Measurement of horizontal angle by: a. Reiteration method (not for Exam) b. Repetition method (not for Exam)
3. Determination of distance between two points when their bases are accessible, using Theodolite - Measuring Horizontal angles by repetition method and distances from a Theodolite Station.
4. Determination of distance between two points when their bases are inaccessible, using Theodolite - Measuring Horizontal angles by reiteration method from a baseline.
5. Run closed theodolite traverse - Measuring length, included angles, and bearing at initial station. Plot the traverse.
6. Measurements of vertical angles to different points.
7. Determination of Elevation of an object when the base is accessible.
8. Determination of Elevation of an object when the base is inaccessible by :
 - a. Single plane method
 - b. Double plane method.

PART- B: TACHEOMETRIC SURVEYING

1. Determination of constants of a tachometer.
2. Determination of distance and elevation of points by Stadia tachometry.
3. Determination of gradient between two points (with different elevations) by Stadia tachometry.

4. Determination of distance and elevation of points by Tangential tachometry.

PART- C: TOTAL STATION

1. Study of Total Station – General commands used - Instrument preparation and setting – Reading distances and angles.
2. Measurement of distances and co-ordinates of given points, using Total station.
3. Measurement of altitude of given elevated points, using Total Station.
4. Run closed traverse using Total Station and plotting the traverse.
5. Determination of area of a field / land / College Campus etc. using Total station.