

COURSE TITLE : SURVEY PRACTICAL - III
COURSE CODE : 4019
COURSE CATEGORY : A
PERIODS/WEEK : 3
PERIODS/SEMESTER: 39
CREDITS : 2

TIME SCHEDULE

Module	Topics	Period
1	Tacheometric survey	10
2	Curve setting	10
3	Total station practice	9
4	Setting out and staking with total station	10
TOTAL		39

COURSE OUTCOME

Sl.	Sub	Student will be able to
1	1	To find the height and distances using tacheometer
	2	Set out curve by different methods
	3	Use total station
2	1	Conduct Survey in a given plot and prepare a report

SPECIFIC OUT COME

Upon completion of the course the student should be able to:

1.1.0 Conduct Tacheometric survey.

- 1.1.1: Explain the principles of stadia tacheometry and tangential tacheometry.
- 1.1.2: Determine the values of stadia constants of the given instrument.
- 1.1.3: Compute the height and distance by stadia tacheometry.
- 1.1.4: Find out the horizontal distance and elevation of objects by stadia tacheometry.
- 1.1.5: Determine the distance and elevation of various objects by tangential tacheometry.
- 1.1.6: Determine the gradient of line joining two points by stadia or tangential method.

2.1.0 To set out simple circular curve.

- 2.1.1: Compute the elements of given circular curve.
- 2.1.2: Set out simple circular curve by offset from long chord.
- 2.1.3: Set out simple circular curve using theodolite from one station.

3.1.0 Use the modern survey instruments such as electronic theodolite , total station, GPS & EDM.

3.1.1: Explain the facilities available in the electronic theodolite, Total station, GPS & EDM.

3.1.2: Carryout the temporary setting of total station and electronic theodolite.

3.1.3: Conduct traversing with total station.

3.1.4: Perform the survey with prism and non prism mode.

3.1.5: Find the remote height, difference in elevation, and distance between objects.

3.1.6: Carry out tacheometry using electronic theodolite.

3.1.7: Determine the co-ordinates of points using GPS.

CONTENT DETAILS

Tacheometric Survey - stadia constants - stadia tacheometry - tangential tacheometry and gradient of lines. Setting out of simple circular curve by linear measurements - using single theodolite.

Modern Survey Instruments : EDM, Electronic theodolite & Total station – Traversing -Determination of area of a plot using total station with and without shifting - prism mode and non prism mode - remote height - contouring - contour map - use of GPS.