

2/4 B.Tech. THIRD SEMESTER

CE3L1

SURVEYING FIELD WORK – I

Credits: 2

Lecture: -

Internal assessment: 25 marks

Lab : 3 periods/week

Semester end examination: 50 marks

Pre-requisites: Surveying

Learning objectives:

- To have firsthand experience of applying surveying methods in practice.

Course outcomes:

After performing the experiments listed in the syllabus, the students will have skills in:

1. Use of various survey equipment like chain, compass, plain table, dumpy level, theodolite, Total Station and Geo Positional System.
2. Surveying and plotting of an area, inaccessible points of an area with Compass.
3. Traversing, fly leveling and contouring.

LIST OF EXPERIMENTS:

1. Survey of an area by chain survey (closed traverse) & Plotting
2. Chaining across obstacles
3. Determination of distance between two inaccessible points with compass.
4. Surveying of a given area by prismatic compass (closed traverse) and plotting after adjustment.
5. Radiation method, intersection methods by plane Table survey
6. Two point and three point problems in plane table survey
7. Traversing by plane table survey
8. Fly leveling (differential leveling)
9. An exercise of L.S and C.S and plotting
10. Two exercises on contouring.

LIST OF MAJOR EQUIPMENTS:

1. Chains, tapes, ranging rods, cross staff, arrows
2. Compasses and Tripods, Optical square.
3. Plane tables, Alidade, Plumbing fork, trough compasses
4. Leveling instruments and leveling staves
5. Box sextants, planimeter.