
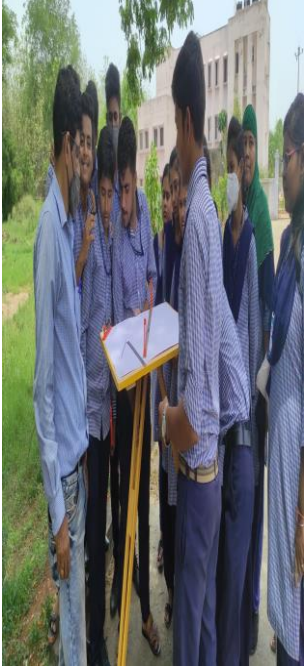



## LAND SURVEY PRACTICE-I

Sl. No.	Name of The Experiment	Photo	List of Equipment
<b>1.0 Linear Measurements, Chaining and Chain Surveying:</b>			<ol style="list-style-type: none"> <li>1. Chain(30,20)</li> <li>2. Tape</li> <li>3. Ranging Rod</li> <li>4. Peg</li> <li>5. Arrow</li> </ol>
1.1	1.1 Testing and adjusting of a metric chain.		
1.2	1.2 Measurement of distance between two points (more than 2 chain lengths apart) with chain including direct ranging.		
1.3	1.3 Setting out different types of triangles, given the lengths of sides with chain and tape.		
1.4	1.4 Measurement of distance between two points by chaining across a sloped ground using stepping method and a clinometer.		
1.5	1.5 Measurement of distance by chaining across a obstacles on the chain line i) a pond ii) a building iii) a stream/ river (in the event of non-availability of stream / river, a pond or lake may be taken, considering that chaining around the same is not possible.		
1.6	1.6 Setting perpendicular offsets to various objects (at least 3) from a chain line using-(1) tape, (2) cross-staff, (3) optical square and comparing the accuracy of the 3 methods		<ol style="list-style-type: none"> <li>1. Chain(30,20)</li> <li>2. Tape</li> <li>3. Ranging Rod</li> <li>4. Peg</li> <li>5. Arrow</li> </ol>
1.7	1.7 Setting oblique offsets to objects (at least 3) from a chain using tape		<ol style="list-style-type: none"> <li>6. cross-staff</li> <li>7. optical square</li> </ol>
<b>2.0 Angular Measurement and Compass Surveying:</b>			
2.1	Testing and adjustment of Prismatic compass and Surveyor's compass.		<ol style="list-style-type: none"> <li>1. Prismatic Compass</li> </ol>
2.2	Measurement of bearings of lines (at least 3 lines) and determination of included angles using Prismatic compass and Surveyor's compass.		<ol style="list-style-type: none"> <li>2. Surveyor Compass</li> </ol>
2.3	Setting out triangles (at least 2) with compass, given the length and bearing of one side and included angles.		<ol style="list-style-type: none"> <li>3. Chain</li> </ol>
2.4	Setting out a closed traverse of 5 sides, using prismatic compass, given bearing		<ol style="list-style-type: none"> <li>4. Tape</li> <li>5. Ranging Rod</li> <li>6. Peg</li> <li>7. Arrow</li> </ol>

	of one line and included angles		
2.5	2.5 Conducting chain and compass traverse surveying in a given plot of area (2plots) and recording data in the field book. (5 to 6 students/groups)		<ol style="list-style-type: none"> <li>1. Prismatic Compass</li> <li>2. Surveyor Compass</li> <li>3. Chain</li> <li>4. Tape</li> <li>5. Ranging Rod</li> <li>6. Peg</li> </ol>
<b>3.0 Map Reading Cadastral Maps &amp; Nomenclature:</b>			<b>Indian Maps</b>
3.1	3.1 Study of direction, Scale, Grid Reference and Grid Square		
3.2	3.2 Study of Signs and Symbols		
3.3	3.3 Cadastral Map Preparation Methodology		
3.4	3.4 Unique identification number of parcel		
3.5	3.5 Positions of existing Control Points and its types		
3.6	3.6 Adjacent Boundaries and Features, Topology Creation and verification.		
<b>4.0 Plane Table Surveying:</b>			
4.1	4.1 Setting up of Plane Table and Plotting five points by radiation method and five inaccessible points by intersection method.		<ol style="list-style-type: none"> <li>1. Plane table</li> <li>2. Alidade</li> <li>3. U-fork</li> <li>4. Box Compass</li> <li>5. Tripod</li> <li>6. Ranging Rod</li> <li>7. Peg</li> </ol>
4.2	4.2 Conducting Plane Table surveying in a given plot of area by traversing (Atleast a 5-sided traverse and locating the objects)		
4.3	4.3 Plane table surveying by Resection method (two point & three point problem method)		
<b>5.0 Theodolite Traversing:</b>			
5.1	5.1 Measurement of horizontal angles (3nos.) by repetition and reiteration method and compare two methods		<ol style="list-style-type: none"> <li>1. Theodolite</li> <li>2. Tripod stand</li> <li>3. Ranging Rod</li> </ol>
5.2	5.2 Prolonging a given straight line with the help of a theodolite		
5.3	5.3 Determination of magnetic bearing of 3 given straight lines		

