PROGRAMME : CIVIL ENGINEERING **COURSE NAME : LAND SURVEY PRACTICE-I** **COURSE CODE : PR-1** **SEMESTER : 4TH** **PERIODS/WEEK : 7** **TOTAL PERIODS : 105**	**NAME OF THE FACULTY: MANASI PRADHAN** **SESSION : 2020-2021** **DATE : 05-04-2021 to 30.06.2021**

WEEK	CLASS	TOPICS
1	1	Testing and adjusting of a metric chain.
	2	Measurement of distance between two points with chain by direct ranging
2	1	Setting out different types of triangles, given the lengths of sides with chain and tape
	2	Measurement of distance between two points by chaining across a sloped ground using stepping method and a clinometer
3	1	Measurement of distance by chaining across a obstacles on the chain line
	2	Setting perpendicular offsets to various objects
4	1	Setting oblique offsets to objects
	2	Testing and adjustment of Prismatic compass and Surveyor's compass
5	1	Measurement of bearings of lines (at least 3 lines) and determination of included angles using Prismatic compass and Surveyor's compass
	2	Setting out triangles (at least 2) with compass, given the length and bearing of one side and included angles
6	1	Setting out a closed traverse of 5 sides, using prismatic compass, given bearing of one line and included angles and lengths of sides
	2	Conducting chain and compass traverse surveying in a given plot of area and recording data in the field book
7	1	Study of direction, Scale, Grid Reference and Grid Square
	2	Study of Signs and Symbols
8	1	Cadastral Map Preparation Methodology
	2	Unique identification number of parce
9	1	Positions of existing Control Points and its types
	2	Adjacent Boundaries and Features, Topology Creation and verification
10	1	Setting up of Plane Table and Plotting five points by radiation method and five inaccessible points by intersection method.
	2	Conducting Plane Table surveying in a given plot of area by traversing
11	1	Plane table surveying by Resection method
	2	Measurement of horizontal angles (3nos.) by repetition and reiteration method and compare two method
12	1	Prolonging a given straight line with the help of a theodolite, Plotting the traverse from exercise 4.1 and checking the error of closure. Setting out an open traverse with 5 sides and entering the field data 5.6 Plotting the traverse from exercise 4.3 and checking the error of closure
	2	Leveling and Contouring: Making temporary adjustments of Levels 6.2 Determining Reduced Levels of five given points taking staff readings with Levels.Determining the difference of levels between two points by taking staff

		readings form single set up of level, recording the readings in level book and application of Arithmetic check.
13	1	Locating contour points in the given area by direct method / indirect method Conducting block level survey in the given area ,Plotting and drawing contour map of a given area by radial method , Map Interpretation: Interpret Human and Economic Activities.
	2	Basics of Aerial Photography: Film , Focal Length ,Scale ,Types of Aerial Photographs (Oblique, Straight)
14	1	Basics of Photogrammetry, DEM and Ortho Image generation: Photogrammetry, Classification of Photogrammetry ,Aerial Photogrammetry , Terrestrial Photogrammetr
	2	Photogrammetry Process: Acquisition of Imagery using aerial and satellite platform ,Control Survey ,Geometric Distortion in Imagery
15	1	Application of Imagery and its support data , Orientation and Triangulation Stereoscopic Measurement: X-parallax and Y-parallax ,DTM/DEM Generation , Ortho Image Generatio
	2	Theodolite ;Measurement of horizontal angle-revision