Subject		Surveying-I (PC/CE/33-T)	Semester 3rd
Week	**Lecture Day**	**Topic (Including Assignment/Test)**	**Date**
1	1	Introduction to Surveying: Definition, importance, Objectives, History of surveying and mapping,	
	2	Importance, Maps and maps Numbering systems, Maps, Scale, Principles of survey,	
	3	Classification of surveys, different techniques of surveying. Chain Surveying: Ranging	
	4	Chaining, Offsets, Errors in Chaining	
2	5	Corrections to length measured with a tape. Compass Surveying: Purpose of compass surveying	
	6	Comparison of compass surveying and chain surveying	
	7	Dip, Magnetic Declination, **W.C.B., Q.B.**, and R.B	
	8	Plane Table Surveying: Introduction to plane table surveying, principle, instruments, working operations, setting up the plane table, centering, leveling, Orientation	
3	9	methods of plane table survey, danger circle, Lehmann‟s Rules, errors in plane tabling.	
	10	Leveling: definitions of terms used in leveling, different types of levels, parallax, staves, adjustments, bench marks, classification of leveling,	
	11	booking and reducing the levels, rise and fall method, line of collimation method, errors in leveling,	
	12	permanent adjustments, Two peg test, reciprocal leveling,	
4	13	Corrections to curvature and refraction, cross sections and longitudinal leveling	
	14	Trigonometrically Leveling: Introduction, height and distances-base of the object accessible	
	15	base of object inaccessible	
	16	Geodetical observation, refraction and curvature	
5	17	axis signal correction,	
	18	difference in elevation between two points	
	19	Contours: Definition, representation of reliefs	
	20	horizontal equivalent, contour interval	
6	21	characteristics of contours, methods of contouring,	
	22	contour gradient, uses of contour maps	
	23	Numericals	
	24	Theodolite and Theodolite Traversing: Theodolites, temporary adjustment of theodolite,	
7	25	Minor Test 1	
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8	29	measurement of angles, repetition and reiteration method	
	30	measurement of angles, repetition and reiteration method	
	31	Numericals	
	32	measurement of angles, repetition and reiteration method	
	33	traverse surveying with theodolite, checks in traversing,	

9	34	adjustment of closed traverse, examples.	
	35	Tacheometry: Uses of tacheometry, principle of tacheometric surveying,	
	36	instruments used in tacheometry	
10	37	systems of tacheometric surveying	
	38	stadia system fixed hair method,	
	39	determination of tacheometric constants	
	40	Numericals	
11	41	tangential systems, examples	
	42	Curves: Classification of curves, elements of simple circular curve,	
	43	location of tangent points-chain and tape methods,	
	44	instrumental methods, examples of simple curves.	
12	45	Numericals	
	46	Transition Curves-Length and types of transition curves, length of combined curve,	
	47	length of combined curve examples	
	48	Numericals	
13	49	Vertical Curves: Necessity and types of vertical curves.	
	50	Numericals	
	51	Triangulation: Triangulation systems, classification,	
	52	strength of figure	
14	53	Minor Test 2	
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15	57	selection of triangulation stations,	
	58	grade of triangulation, field work of triangulation,	
	59	triangulation computations	
	60	Numericals	