

Lesson Plan/ Course Break – up
PCC-CVE-305T-SURVEYING -II

Name of the Faculty	Mr. Harish Kumar
Discipline	B.Tech in Civil Engineering
Semester	V (3rd Year)
Subject	Surveying - II
Lesson Plan Duration	15 Weeks (from September to December 2022)
Work Load (Lecture / Practical) per week (in hrs.)	Lectures – 03

Week	Theory	
	Lecture Day	Topic (Including assignment / Test)
1 st	1	Trigonometrical levelling: introduction
	2	Height and distances-base of the object accessible
	3	Base of object inaccessible, geodetical observation
2 nd	4	Refraction and curvature, axis signal correction
	5	Difference in elevation between two points.
	6	Triangulation: Triangulation systems, classification, strength of figure
3 rd	7	Selection of triangulation stations
	8	Grade of triangulation
	9	Field work of triangulation
4 th	10	Triangulation computations
	11	Introduction to E.D.M. instruments
	12	Survey Adjustment and Treatment of Observations
5 th	13	Types of errors
	14	Definition of weight of an observation,
	15	Most probable values
6 th	16	Law of accidental errors, law of weights
	17	Determination of probable error (different cases with examples)
	18	Principle of least squares
7 th	MINOR TEST-1	
8 th	19	Adjustment of triangulation figures by method of least squares.
	20	Astronomy: Definitions of astronomical terms
	21	Star at elongation
9 th	22	Star at prime vertical star at horizon
	23	Star at culmination
	24	Celestial coordinate systems
10 th	25	Napier's rule of circular parts
	26	Various time systems
	27	Sidereal, apparent, solar

11 th	28	Mean solar time
	29	Equation of time-its cause
	30	Elements of Photo-grammetry: Introduction
12 th	31	Types of photographs
	32	Types of aerial photographs
	33	Aerial camera and height displacements in vertical photographs
13 th	34	Stereoscopic vision and stereoscopies
	35	Height determination from parallax measurement
	36	Flight planning Introduction of remote sensing and its systems:
14 TH	MINOR TEST-2	
15 th	37	Concept of G.I.S and G.P.S.
	38	Basic components
	39	Data input, storage & output