

Lesson Plan

Name of the Faculty: Arun

Discipline: CIVIL Engineering

Semester: IIIrd

Subject: Surveying-I

Work Load (Lecture/Practical) per week (in hours): Lectures- , Practicals-

Week	Theory		Practical	
	Lecture day	Topic (including assignment/test)	Practical day	Topic
1 st	1 st	Fundamental Principles of Surveying	1 st	To plot a traverse of a given area by chain surveying & also locate offsets
	2 nd	Definition of surveying		
	3 rd	objects, classification		
	4 th	fundamental principles		
2 nd	5 th	methods of fixing stations	2 nd	To plot a traverse of a given area with the help of a compass and a chain
	6 th	Measurement of distances		
	7 th	Direct measurement		
	8 th	instruments for measuring distance		
3 rd	9 th	instruments for making stations	3 rd	To work out relative elevations of various points on the grounds by performing profile or by fly leveling
	10 th	chaining of line		
	11 th	errors in chaining		
	12 th	tape corrections examples		
4 th	13 th	Compass and Chain Traversing	4 th	To plot a longitudinal section and cross section of given alignment
	14 th	Methods of traversing		
	15 th	instruments for measurement of angles-prismatic		
	16 th	surveyor's compass		
5 th	17 th	bearing of lines	5 th	To determine the difference in elevations of two points by reciprocal leveling
	18 th	local attraction, examples		
	19 th	UNIT 1 TEST		
	20 th	Leveling		
6 th	21 st	Definition of terms used in leveling	6 th	To plot a contour map of given area.
	22 nd	types of levels and staff		
	23 rd	temporary adjustment of levels		
	24 th	principles of leveling		
7 th	25 th	reduction of levels	7 th	To determine the position of station occupied by plane table using three point
	26 th	booking of staff readings		
	27 th	Contour Definition, representation of reliefs		

	28 th	horizontal equivalent		problem
8 th	29 th	contour interval, characteristics of contours	8 th	To determine the position of station occupied by plane table using two point problem
	30 th	methods of contouring, contour gradient		
	31 st	uses of contours maps		
	32 nd	Plane table, methods of plane table surveying		
9 th	33 rd	radiation, intersection, traversing and resection	9 th	Use of a tangent clinometer with plane table
	34 th	two point and three point problems		
	35 th	UNIT 2 TEST		
	36 th	Theodolite and Theodolite Traversing		
10 th	37 th	Definition of Theodolites	10 th	To determine the position of station occupied by plane table using three point
	38 th	temporary adjustment of theodolite		
	39 th	measurement of angles, repetition and reiteration method		
	40 th	traverse surveying with theodolite		
11 th	41 st	checks in traversing, adjustment of closed traverse, examples	11 th	To determine the position of station occupied by plane table using two point problem
	42 nd	Uses of tacheometry, systems of tacheometric surveying-stadia system fixed hair method		
	43 rd	principle of tacheometric surveying		
	44 th	instruments used in tacheometry		
12 th	45 th	determination of tacheometric constants, tangential systems, examples	12 th	Use of a tangent clinometer with plane table
	46 th	UNIT 3 TEST		
	47 th	Classification of curves		
	48 th	elements of simple circular curve		
13 th	49 th	location of tangent points-chain and tape methods	13 th	To plot a traverse of a given area with the help of a compass and a chain
	50 th	instrumental methods,		
	51 st	Transition Curves-Length		
	52 nd	length of combined curve		
14 th	53 rd	examples of simple curves	14 th	Revision of lasts Practicals
	54 th	types of transition curves		
	55 th	Vertical Curves: Necessity, types of vertical curves		
	56 th	UNIT 4 TEST		
15 th	57 th	UNIT 1 REVISION	15 th	Revision of lasts Practicals

	58th	UNIT 2 REVISION		
	59th	UNIT 3 REVISION		
	60th	UNIT 4 REVISION		