

20CE3352- SURVEYING LAB

Offering Branches	CE		
Course Category:	Professional core	Credits:	1.5
Course Type:	Laboratory	Lecture-Tutorial-Practical:	0-0-3
Prerequisites:	Nil	Continuous Evaluation:	15
		Semester End Evaluation:	35
		Total Marks:	50

Course Outcomes

Upon successful completion of the course, the student will be able to:

CO1	Demonstrate accurate measurements, field booking, plotting of area using chain survey.	K4
CO2	Impart the knowledge in the field- measuring distances, directions, angles, heights using compass and theodolite.	K4
CO3	Plotting the accessible and inaccessible points in filed itself by using plane table.	K4
CO4	Execute the levelling works of various profiles and Interpret the survey data and prepare contour maps.	K5

Contribution of Course Outcomes towards achievement of Program Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3	3	3	3		3	3	3		3	3	
CO2	3	3	3	3	3	3		3	3	3		3	3	
CO3	3	3	3	3	3	3		3	3	3		3	3	
CO4	3	3	3	3	3	3		3	3	3		3	3	
Avg.	3	3	3	3	3	3		3	3	3		3	3	

1- Low

2-Medium

3-High

Course Content

Experiment No.1	Survey of an area by chain survey (closed traverse) & Plotting	CO1 CO2 CO3 CO4
Experiment No.2	Chaining across obstacles by chain and cross-staff survey	
Experiment No.3	Determination of distance between two inaccessible points with compass.	
Experiment No.4	Measurement of bearings of sides of a closed traverse with prismatic compass and computation of correct included angle using Bowditch's rule	
Experiment No.5	Radiation method by plane Table survey	
Experiment No.6	Finding distances of inaccessible points by plane table survey using intersection method	
Experiment No.7	To determine the elevation between two points using fly levelling technique and booking with arithmetical check using H.I. method	
Experiment No.8	Finding elevation difference of given points using differential levelling technique using Rise and Fall method.	
Experiment No.9	To conduct longitudinal and cross section levelling for road profile.	
Experiment No.10	Contouring of a given field and preparing map	
Experiment No.11	Finding horizontal and vertical angles by using theodolite	
Experiment No.12	Determination of heights and distances between two objects by using theodolite	

Learning Resources

Text Books	<ol style="list-style-type: none"> 1. B.C. Punmia, A.K. Jain, Arun Jain, Surveying I and II, 16/e, Laxmi Publications, 2017. 2. R. Subramanian, Surveying and Levelling, 2/e, Oxford University Press, 2014.
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Reference Books	<ol style="list-style-type: none">1. S.K. Roy, Fundamentals of Surveying, 2/e, Prentice Hall of India, 2011.2. T.P. Kanetkar, Surveying and Levelling, Part I and II, 4/e, New Central Book Agency 2012.
e-Resources & other digital material	<ol style="list-style-type: none">3. https://nptel.ac.in/courses/105/101/105101201/4. http://jntuk-coeerd.in/