



GUJARAT TECHNOLOGICAL UNIVERSITY

Diploma of Vocation (D.Voc), 3rd Semester

Branch: Architectural Assistantship

Subject Name: Surveying and Levelling

Subject Code: 1230606

Teaching and Examination Scheme:

Teaching Scheme			Credits	Examination Marks				Total Marks
L	P	OJT		Theory		Tutorial / Practical		
			ESE (E)	PA(M)	ESE (V)	PA (I)		
-	3	-	3	50	-	30	20	50

L-Lecture; P-Practical; OJT – On Job Training; C – Credit; ESE – End Semester Examination; PA – Progressive Assessment

SEMESTER III		
Focus: To develop the knowledge and skill relative to surveying and leveling principles and practice.		
SR NO	Contents:	Hr
1	<ul style="list-style-type: none"> Introduction of subject, basic terms, definition, and terminologies. Classification and division of survey, units of measurements. 	4
2	<ul style="list-style-type: none"> Chain surveying: Linear measurement, principle of chain surveying, instruments used in field work. 	2
3	<ul style="list-style-type: none"> Compass survey: Introduction to traversing, principle used, types of meridians, WCB & RB system. 	4
4	<ul style="list-style-type: none"> Application of dumpy level and theodolite and importance of total station. 	4
5	<ul style="list-style-type: none"> Introduction to leveling & contour: Introduction to leveling & RL, how to get the RL 	4
6	<ul style="list-style-type: none"> Understanding of contours, basic characteristics & uses of contour, study of contour map, identification of ridge line, valley line, etc. calculation of volume for cutting & filling using contour map. 	4
7	<ul style="list-style-type: none"> Setting out of building: Setting out of building on the ground- Methods for setting out buildings by horizontal and vertical control. 	4
8	<ul style="list-style-type: none"> Introduction to remote sensing and GIS: introduction to various terminology & reading of maps. 	2
Total		28
Projects: Contour survey, application of dumpy level, compass, chain, and theodolite		
Course Outcome: Develop an understanding of application and importance of survey in building design.		
Method: Sketches, lectures, PPT , documentary		
References: B.C. Punmia- Building Construction		



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- Khanna P. N.- Civil Engineers Handbook
- Khanna P.N.-Civil Engineers Handbook
- Kumar Sushil-Building Construction
- Rangwala-Building Construction

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks				
R Level	U Level	A Level	N Level	E Level
5	20	15	5	5

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate and above levels (Bloom's Taxonomy)