

TRIBHUWAN UNIVERSITY
INSTITUTE OF ENGINEERING
PULCHOWK CAMPUS
DEPARTMENT OF CIVIL ENGINEERING

SURVEY INSTRUCTION COMMITTEE
Observation of Angle at Bridge Site by Total Station

St.	To.	Face	Set-I				Set-II				Mean Hz. Angle of two sets	Corrected Mean Hz. Angle of two sets
			HCR Observation			Horizontal Angle	HCR Observation			Horizontal Angle		
			d	m	s		d	m	s			
A	C	L	0	0	0		90	0	0			
		R	180	0	4		269	59	54			
	B	L	87	31	40	87°31'41"	177	31	42	87°31'43"	87°31'42"	87°31'45"
		R	267	31	46		357	31	38			
	D	L	174	59	2	87°27'25"	264	59	8	87°27'29"	87°27'27"	87°27'29"
		R	354	59	14		84	59	10			
B	D	L	0	0	0		90	0	0			
		R	180	0	12		269	59	52			
	A	L	35	13	37	35°13'39"	125	13	43	35°13'41"	35°13'40"	35°13'42"
		R	215	13	53		305	13	31			
	C	L	74	19	26	39°5'50"	164	19	34	39°5'54"	39°5'52"	39°5'55"
		R	254	19	44		344	19	28			
C	B	L	0	0	0		90	0	0			
		R	180	0	8		270	0	6			
	A	L	53	22	20	53°22'19"	143	22	13	53°22'15"	53°22'17"	53°22'20"
		R	233	22	26		323	22	23			
D	A	L	0	0	0		90	0	0			
		R	180	0	4		270	0	18			
	B	L	57	18	52	57°18'49"	147	18	48	57°18'45"	57°18'47"	57°18'49"
		R	237	18	51		327	19	0			

Triangle ABC	
Sum of internal angles	179°59'51"
Theoretical sum of internal angles	180°
Error (-ve)	0°0'9"
Permissible error (30" √N)	0°0'52"
Correction (+ve)	0°0'3"

Triangle ABD	
Sum of internal angles	179°59'54"
Theoretical sum of internal angles	180°
Error (-ve)	0°0'06"
Permissible error (30" √N)	0°0'52"
Correction (+ve)	0°0'2"