

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	HCR Observation			Horizontal Angle	Corrected Mean Hz. Angle of two sets
			d	m	s		
C	F	L	0	0	0		
		R	180	0	24		
	E	L	66	11	15	66°11'11"	66°11'14"
		R	246	11	31		
C	E	L	66	11	15		
		R	246	11	31		
	B	L	119	33	19	53°22'5"	53°22'9"
		R	299	33	37		
F	G	L	0	0	0		
		R	179	59	57		
	E	L	80	9	46	80°9'45"	80°9'50"
		R	260	9	41		
F	E	L	80	9	46		
		R	260	9	41		
	C	L	148	41	45	68°31'56"	68°31'59"
		R	328	41	34		
G	E	L	0	0	0		
		R	180	0	6		
	F	L	73	2	20	73°2'23"	73°2'28"
		R	253	2	32		
B	C	L	73	44	12		
		R	253	45	0		
	E	L	124	5	1	50°20'46"	50°20'50"
		R	304	5	43		
E	B	L	0	0	0		
		R	180	0	0		
	C	L	76	16	56	76°16'57"	76°17'1"
		R	256	16	58		
E	C	L	76	16	56		
		R	256	16	58		
	F	L	121	33	39	45°16'45"	45°16'48"
		R	301	33	45		
	F	L	121	33	39		
		R	301	33	45		

E	G	L	148	21	14	26°47'37"	26°47'42"
		R	328	21	24		

Triangle CBE	
Sum of internal angles	179°59'48"
Theoretical sum of internal angles	180°
Error(-ve)	0°0'12"
Permissible error ($1' \sqrt{N}$)	0°1'44"
Correction (+ve)	0°0'4"

Triangle CEF	
Sum of internal angles	179°59'52"
Theoretical sum of internal angles	180°
Error(-ve)	0°0'8"
Permissible error ($1' \sqrt{N}$)	0°1'44"
Correction (+ve)	0°0'3"

Triangle EFG	
Sum of internal angles	179°59'45"
Theoretical sum of internal angles	180°
Error(-ve)	0°0'15"
Permissible error ($1' \sqrt{N}$)	0°1'44"
Correction (+ve)	0°0'5"