Code No: P21CET04

PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE (AUTONOMOUS) II B.TECH I SEMESTER END SUPPLEMENTARY EXAMINATIONS, MARCH/APRIL - 2023 SURVEYING AND GEOMETRICS (CE Branch)

Time: 3 hours

Answer all the questions from each UNIT (5X14=70M)

Max. Marks: 70

Q.No Questions			Marks	CO	KL				
			UNIT-I						
1.	a)	What are the objectives and principles of surveying?				1			
	b)	Explain about the indirect or reciprocal ranging.				1			
OR									
2.	a)	What are the different corr	[7M]	1					
		explain them.							
	b)	Explain the terms Local attr	[7M]	1					
	UNIT-II								
3.	a)	The following are the consecutive readings taken on a levelling staff at different				2			
		points on a line 0.335, 1.3							
		first reading was taken on							
		instrument was shifted aft							
		points.							
	b)	The perpendicular offsets ta	[7M]	2					
		boundary line are 3.50, 5.2							
		the area enclosed between t							
		and last offsets by the appli-							
4	-)	W/h = 4 is used and have a have also	[7]) []	2					
4.	a)	What is meant by a bench mark, what are their types and where they are used?							
	0)	A failway embankment of		2					
		controlling the length of an							
		in 25m interval are 1.45.2							
		of earth work							
5	a) What are the temporary adjustments that you will perform at every setup of the					3			
		theodolite?		[[, -, -]					
	b)	The following observations	[7M]	3					
	Í	height of target above the h							
		Instrument station	Staff reading on Bench	Angle of elevation to					
			mark	target					
		A	1.830	26°36'					
		В	3.150	16º48'					
		The reduced level of the b	ench mark was 530.345 Th	ne instrument stations were					
		120 m apart and were in lin							
		[7] (]	2	1					
6	a)	What are the different types of errors that you will get while using a theodolite and				3			
	L	To find the closetice of the	II.	amotiona mar - 1- C	[7] [7]	2			
	(0)	10 find the elevation of to		5					
		two stations A and B are at 75 n							
1	1	1			1	1	1		

		Instrument at station	Angle of elevation to P	Horizontal angel	Staff on	reading Bench	Bench mark			
					mark					
		A	20°12'	Angle PAB = $62^{\circ}18'$	2.240		503.670			
		В	21º06'	Angle PBA = $72^{\circ}42$ '	3.260		503.670			
		Find the elevation								
UNIT-IV										
7	a)	Explain the following terms with respect to a simple circular curve with a sketch.							4	
	Ĺ	Back tangent. Forward tangent. Point of intersection. Point of curve. Point of								
		tangency External distance and Deflection of the curve								
	b)	What are the adv	are the advantages and disadvantages of total station?					[7M]	4	
	OR									
8	a)	Two straight line AB and BC intersect at chainage 1540 500m the angle of						[7M]	4	
		intersection being 110° Calculate the chainage of the tangent points of a right								
		handed circular curve of 200 m radius.								
	b)	State the segments of Global Positioning System configuration and what are the						[7M]	4	
		advantages of Global Positioning System?							•	
INIT_V										
9	a)	What are the branches of terrestrial photogrammetry briefly explain them					[7M]	5		
-	$\frac{u}{h}$	What are the use	uses of photogrammetry?			[7M]	5			
									5	
10	a)	What is meant by tilt displacement in a photogrammatric surveying?						[7M]	5	
10	$\frac{a}{b}$	What is meant	meant by messive, and what are the differences between messive and a					[7M]	5	
		what is meant by mosaics, and what are the differences between mosaic and a							5	
		map.								
