



Sanjay Ghodawat University, Kolhapur

2018-19

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017 EXM/P/09/01

Year and Program: 2018-19

School of Technology

Department of SY B.Tech

Course Code: CET204

Course Title: Engineering
Surveying

Semester – III

Day and Date Wednesday
12/06/2019

End Semester Examination
(ESE)

Time: 3 Hrs.
Max Marks: 100

2.30 to 5.30 pm

Instructions:

- 1) All questions are compulsory.
- 2) Assume suitable data wherever necessary.
- 3) Figures to the right indicate full marks.

Q.1		Solve any Two	Marks	Bloom's Level	CO																		
	a)	When reciprocal leveling done? Describe the method along with neat sketch.	07	L ₃	CO1																		
		OR																					
	a)	What are the characteristics of contour line? (Explain with neat sketches)	07	L ₃	CO1																		
	b)	Describe the process of measuring the horizontal angle	08	L ₄	CO2																		
		OR																					
	b)	The record of closed traverse is given below, with two distances missing	08	L ₄	CO2																		
		<table><tr><td>Line</td><td>Length</td><td>Bearing</td></tr><tr><td>AB</td><td>100.5</td><td>N30°30'E</td></tr><tr><td>BC</td><td>?</td><td>S45°0'E</td></tr><tr><td>CD</td><td>75.0</td><td>S40°30'W</td></tr><tr><td>DE</td><td>50.5</td><td>S60°0'W</td></tr><tr><td>EA</td><td>?</td><td>N40°15'W</td></tr></table>	Line	Length	Bearing	AB	100.5	N30°30'E	BC	?	S45°0'E	CD	75.0	S40°30'W	DE	50.5	S60°0'W	EA	?	N40°15'W			
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Q.2		Solve any Two																					
	a)	Derive the Expression for Base of Object Inaccessible: Instrument at Different Height (Instrument in same vertical plane as the elevated object.).	07	L ₃	CO3																		
		OR																					

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Q.5	Solve any Two			
	a) Describe the method of setting out simple curve by offsets from chord produced	09	L ₃	CO6
	b) Two tangents AB and BC intersect at a point B at chainage 150.5m. Calculate all the necessary data for setting out a circular curve of radius 100 m and deflection angle 30° by method of offsets from the long chord.	09	L ₃	CO6
	c) Describe the method of setting out simple curve by Rankine's deflection angle method	09	L ₃	CO6
Q.6	Solve any Three			
	a) Explain Methods of Tacheometry	06	L ₁	CO5
	b) Explain Object and theory of anallatic lens	06	L ₁	CO5
	c) What is degree of curve? Derive relation between radius and degree of curve	06	L ₁	CO6
	d) Explain why super elevation is required in roads and railway	06	L ₁	CO6

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