



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: *3Hrs.* 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 <table border="1" data-bbox="272 1323 1145 1644"><thead><tr><th>Line</th><th>Length</th><th>Bearing</th></tr></thead><tbody><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></tbody></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	08	L ₄	CO2
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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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