

PRAGATI ENGINEERING COLLEGE: SURAMPALEM
(AUTONOMOUS)

II B.Tech I Semester Supplementary Examinations, June- 2024

SURVEYING
(CE)

Time: 3 hours

Max. Marks: 70

Answer ONE Question from each Unit
All Questions Carry Equal Marks

Q. No.	Questions	BTL	CO	Marks
UNIT – I				
1.	a) Classify the method of surveying based upon the instruments used?	K2	CO1	7M
	b) Describe the use of various accessories of a plane table?	K3	CO1	7M
OR				
2.	a) What are the different sources of errors in plane tabling? How are they eliminated?	K1	CO1	7M
	b) What is two-point problem? How is it solved?	K2	CO1	7M
UNIT – II				
3.	a) Explain about local attraction? How is it detected and eliminated?	K1	CO2	7M
	b) Distinguish clearly between closed traverse and open traverse.	K2	CO2	7M
OR				
4.	a) Explain clearly the difference between prismatic compass and surveyors compass.	K3	CO2	7M
	b) What is declination? What are different types of variations in declination?	K2	CO2	7M
UNIT – III				
5.	a) The following staff readings were observed successively with level, the instrument having been moved forward after the second, fourth and eighth readings: 0.875, 1.235, 2.310, 1.385, 2.930, 3.125, 4.125, 0.120, 1.875, 2.030, and 3.765. The first reading was taken with the staff held upon a benchmark of elevation 132.135. Enter the readings in level book-form and reduce the levels. Apply the usual checks. Find also the difference in level between the first and the last points.	K4	CO3	14M
OR				
6.	a) Compare the collimation method with Rise and Fall method.	K2	CO3	7M
	b) Discuss in detail the methods of direct and indirect contouring.	K3	CO3	7M
UNIT – IV				
7.	a) Write about parts of the Transit Theodolite?	K3	CO4	7M
	b) Explain how you would take field observations with a theodolite so as to eliminate the Error due to eccentricity of verniers.	K2	CO4	7M
OR				

8.	a)	What is meant by 'shift' of a curve? Derive an expression for the same.	K2	CO4	7M
	b)	Explain the various methods of determining the length of a transition curve.	K2	CO4	7M
UNIT – V					
9.	a)	State the various methods for computation of areas along regular boundaries?	K2	CO5	7M
	b)	List out the sources of errors in computation of areas.	K3	CO5	7M
OR					
10.	a)	What is Simpsons rule? Derive an expression for it.	K2	CO5	7M
	b)	The following perpendicular offsets were taken at 10m intervals from a survey line to an irregular boundary line: 3.25, 5.60, 4.20, 6.65, 8.75, 6.20, 3.25, 4.20, 5.65 Calculate the area enclosed between the survey line, the irregular boundary line and the first and last offsets by Simpsons method.	K3	CO5	7M