

JHARSUGUDA ENGINEERING SCHOOL, JHARSUGUDA
DEPARTMENT OF CIVIL ENGINEERING
PROGRAM: DIPLOMA IN CIVIL ENGINEERING
SUBJECT- LAND SURVEY PRACTICE II

BRANCH- CIVIL ENGINEERING

NAME OF THE FACULTY: *Dr. Kamesh Babu, Sr Lect (Civ)*
Manoj Kumar Patra, Lect (Civ)

SESSION- SUMMER 2026
SEMESTER-6th

Week No	Practical No	Practical Name
1	1	TRIGONOMETRICAL SURVEYING & TACHEOMETRY: 1.1 Determination of height of 3 objects whose bases are accessible
	2	1.2 Determination of stadia constants
2	3	1.3 Determination of horizontal distance an elevation with Staff vertical , by stadia method
	4	1.3 Determination of horizontal distance an elevation with Staff vertical , by stadia method
3	5	SETTING OUT CURVES AND SITE SURVEYING: 2.1 Setting out a simple circular curve by offsets from long chord
		2.2 Setting out a simple circular curve by offsets from the tangent
	6	2.2 Setting out a simple circular curve by offsets from the tangent 2.3 Setting out a simple circular curve by offsets from chords produces
4	7	2.4 Setting out a simple circular curve by Rankine's method of tangent angle (Deflection angles) Setting out a site the center line and foundation width of a building from the given plan
	8	2.5 Setting out the foundation line for a culvert
		2.6 Dividing an area into plots of given size
5	9	STUDY OF MAP AND MAP SERIES: 3.1 Physical Map
		3.2 Topographic Map
	10	3.3 Road Map
		3.4 Political Map
6	11	3.5 Economic & Resources Map
		3.6 Thematic Map
	12	3.7 Climate Map 3.8 Open Series map and Defense Series Map

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7	13	STUDY ON GPS & DGPS AND ETS: 4.1 GPS: - Global Positioning, GPS Signals, Errors of GPS, Positioning Methods
	14	4.2 DGPS: - Differential Global Positioning System 4.2.1 Base Station Setup 4.2.2 Rover GPS Set up
8	15	4.2.3 Download, Post-Process and Export GPS data 4.2.4 Sequence to download GPS data from flashcards
	16	4.2.5 Sequence to Post-Process GPS data 4.2.6 Sequence to export post process GPS data
9	17	4.2.7 Sequence to export GPS Time tags to file
	18	4.3 ETS: - Electronic Total Station 4.3.1 Distance Measurement
10	19	4.3.2 Angle Measurement
	20	4.3.3 Leveling
11	21	4.3.4 Determining position
	22	4.3.5 Reference networks 4.3.6 Errors and Accuracy
12	23	STUDY OF GIS AND MAP PREPARATION USING GIS 5.1 Components of GIS, Integration of Spatial and Attribute Information
	24	5.2 Three Views of Information System 5.2.1 Database or Table View, Map View and Model View
13	25	5.3 Spatial Data Model 5.4 Attribute Data Management and Metadata Concept
	26	5.5 Prepare data and adding to Arc Map. 5.6 Organizing data as layers.
14	27	5.7 Editing the layers.
	28	5.8 Switching to Layout View.
15	29	5.9 Change page orientation. 5.10 Removing Borders.
	30	5.11 Adding and editing map information. 5.12 Finalize the map

M. S. K.
22/10/21
Mamranjan Patra
(Faculty, Civil Engg)

RF
21/10/21
Anil Kumar Patra
Robert Civil