

**BALASORE SCHOOL OF ENGINEERING, BALASORE****LESSON PLAN-2023 (S)****BRANCH:- CIVIL ENGG.****Theory-1****SEMESTER:-6<sup>th</sup>****SUBJECT:-Land surveying-2****NAME OF THE FACULTY :- B PANDUA**

SL No.	Month /No .of academic days available for the subject	DATE	TOPICS TO BE COVERED
1	FEB/05	23/2/23	Tacheometry 1.1 principles, stadia constants determination
2		24/2/23	1.2 stadia tacheometry with line of collocation horizontal or inclined
3		25/2/23	Problem
4		27/2/23	Problem
5		28/2/22	Problem
6	MARCH/22	1/3/23	1.3 Elevation and distances of staff stations
7		2/3/23	Problems
8		3/3/23	Problem
9		4/3/23	2 Curve 2.1 compound, reverse and transition curve
10		6/3/23	Purpose and use of different type of curve in field
11		9/3/23	2.2 Elements of circular curve. Problem
12		10/3/23	Problem
13		11/3/23	2.3 preparation of curve table for setting out 2.4 setting out of circular curve by chain and tapemethod
14		13/3/23	(I) offsets from long chord
15		14/3/23	(II) successive bisecting of arc
16		15/3/23	(III) offset from tangent
17		16/3/23	(Iv) off set from chord produce
18		17/3/23	(v) Rankine method of tangent. Problem
19		18/3/23	Problem 2.5 Obstacles in curve ranging – point of intersection inaccessible
20		20/3/23	3.1 Fractional or Ratio Scale, Linear Scale, Graphical Scale 3.2 What is Map, Map Scale and Map Projections
21		21/3/23	3.3 How Maps Convey Location and Extent 3.4 How Maps Convey characteristics of features 3.5 How Maps Convey Spatial Relationship
22		22/3/23	3.5 Classification of Maps 3.5.1 Physical Map 3.5.2 Topographic Map 3.5.3 Road Map 3.5.4 Political Map

23		23/3/23	3.5.5 Economic & Resources Map 3.5.7 Climate Map	3.5.6 Thematic Map
24		24/3/23	SURVEY OF INDIA MAP SERIES:	
25		25/3/23	4.1 Open Series map	
26		27/3/23	4.2 Defense Series Map	
27		27/3/23	4.3 Map Nomenclature	
28		28/3/23	4.3.1 Quadrangle Name	
		28/3/23	4.3.2 Latitude, Longitude, UTM's	
		28/3/23	4.3.4 Contour Lines	
		29/3/23	4.3.5 Magnetic Declination	
		29/3/23	4.3.6 Public Land Survey System	
		29/3/23	4.3.7 Field Notes	
29	APRIL/12	3/4/23	BASICS OF AERIAL PHOTOGRAPHY, PHOTOGRAMMETRY, DEM AND ORTHO IMAGE GENERATION:	
30		4/4/23	5.1 Aerial Photography: 5.1.1 Film, Focal Length, Scale	
31		5/4/23	5.1.2 Types of Aerial Photographs (Oblique, Straight)	
32		6/4/23	5.2 Photogrammetry: 5.2.1 Classification of Photogrammetry	
33		10/4/23	5.2.2 Aerial Photogrammetry	
34		11/4/23	5.2.3 Terrestrial Photogrammetry	
35		12/4/23	5.3 Photogrammetry Process	
36		13/4/23	5.3.1 Acquisition of Imagery using aerial and satellite platform	
37		13/4/23	5.3.2 Control Survey	
38		13/4/23	5.3.3 Geometric Distortion in Imagery	
39		13/4/23	Application of Imagery and its support data	
40		13/4/23	Orientation and Triangulation	
41		13/4/23	Stereoscopic Measurement	
42		19.9.1 X-parallax	19.9.1 X-parallax	
43		19.2.2 Y-parallax	19.2.2 Y-parallax	
44		5.4 DTM/DEM Generation	5.4 DTM/DEM Generation	
45		5.5 Ortho Image Generation	5.5 Ortho Image Generation	
46		24/4/23	MODERN SURVEYING METHODS :	
47		25/4/23	6.1 Principles, features and use of (i) Micro-optic theodolite, digital theodolite	
48		25/4/23	CONTINUE	
49		26/4/23	6.2 Working principles of a Total Station (Set up and use of total station to measure angles, distances of points under survey from total station and the co-ordinates (X,Y & Z or northing, easting, and elevation) of surveyed points relative to Total Station position using trigonometry and triangulation.	
50		27/4/23	CONTINUE	
51		28/4/23	CONTINUE	
52	May/11	1/5/23	BASICS ON GPS & DGPS AND ETS:	
53		2/5/23	7.1 GPS: - Global Positioning	
54		3/5/23	7.1.1 Working Principle of GPS, GPS Signals,	
55		4/5/23	7.1.2 Errors of GPS, Positioning Methods	
56		5/5/23	7.2 DGPS: - Differential Global Positioning System	
57		6/5/23	7.2.1 Base Station Setup	
58		7/5/23	7.2.2 Rover GPS Set up	
59		8/5/23	7.2.3 Download, Post-Process and Export GPS data	
60		9/5/23	7.2.4 Sequence to download GPS data from flashcards	
61		10/5/23	7.2.5 Sequence to Post-Process GPS data	
62		11/5/23	7.2.6 Sequence to export post process GPS data	
63		12/5/23	7.2.7 Sequence to export GPS Time tags to file	
64		13/5/23	7.3 ETS: - Electronic Total Station	
65		14/5/23	7.3.1 Distance Measurement	
66		15/5/23	7.3.2 Angle Measurement	
67		16/5/23	7.3.3 Leveling	

46		5/5/23	7.3.4 Determining position 7.3.5 Reference networks 7.3.6 Errors and Accuracy
47		6/5/23	BASICS OF GIS AND MAP PREPARATION USING GIS 8.1 Components of GIS, Integration of Spatial and Attribute Information
48		8/5/23	8.2 Three Views of Information System 8.2.1 Database or Table View, Map View and Model View 8.3 Spatial Data Model.
49		9/5/23	8.4 Attribute Data Management and Metadata Concept 8.5 Prepare data and adding to Arc Map.
50		10/5/23	8.6 Organizing data as layers. 8.7 Editing the layers. 8.8 Switching to Layout View
51		11/5/23	8.9 Change page orientation. 8.10 Removing Borders
52		13/5/23	8.11 Adding and editing map information. 8.12 Finalize the map

#### Brief Summary of the Plan

Sino	Month	Units/Chapter To be Covered	Percentage of Coverage
1	FEB	CH 1.1,1.2	15
2	MARCH	CH.1.3,CH.2,CH.3,CH.4	40
3	APRIL	CH.5,CH.6	30
4	MAY	CH.7;CH.8	15

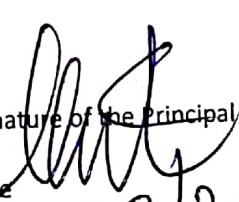


Signature of the Faculty

Date 23/02/23

Signature of the Principal

Date



23/2/23