LESSON PLAN					
BRANCH-CIVIL ENGG				**NAME-BHAGABATA JENA**	
Subject: LAND SURVEY-II (TH-I)				**Semester From Date:14-02-2023 To Date 23-05-2023**	
SEMESTER-6th				**No. Of Weeks: 15**	**5P/WEEK**
No. of Days/week class allotted:05 period per week(Mon,Tue,Thu,Fri, Sat-1 Period each)					**TOTAL PERIOD-75**
MONTH	**WEEK**	**DATE**	**DAYS**	**Syllabus to be covered**	**NO. OF PERIODS AVAILABLE**
FEB				**1. TACHEOMETRY: (9P)**	**9**
	3rd	14-02-2023	TUE	1.1 Principles, stadia constants determination	**1**
		16-02-2023	THU	1.1 Principles, stadia constants determination	**1**
		17-02-2023	FRI	1.2 Stadia tacheometry with staff held vertical and with line of collimation horizontal	**1**
	4th	20-02-2023	MON	1.2 Stadia tacheometry with staff held vertical and with line of collimation inclined	**1**
		21-02-2023	TUE	1.2 Numerical problems	**1**
		23-02-2023	THU	1.3 Elevations and distances of staff stations	**1**
		24-02-2023	FRI	1.3 Numerical problems	**1**
		25-02-2023	SAT	1.3 Numerical problems	**1**
	5th			**2. CURVES: (8P)**	**8**
		27-02-2023	MON	2.1 Compound, reverse and transition curve, Purpose & use of different types of curves in field	**1**
		28-02-2023	TUE	2.1 Compound, reverse and transition curve, Purpose & use of different types of curves in field	**1**
MAR	**1st**	02-03-2023	THU	2.2 Elements of circular curves	**1**
		03-03-2023	FRI	2.2 Numerical problems	**1**
		04-03-2023	SAT	2.3 Preparation of curve table for setting out	**1**
	2nd	06-03-2023	MON	2.4 Setting out of circular curve by chain and tape and by instrument angular methods (i)offsets from long chord,(ii)successive bisection of arc,(iii)offsets from tangents,(iv)offsets chord produced,(v)Rankine's method of tangent angles	**1**
		09-03-2023	THU	2.4 Setting out of circular curve by chain and tape and by instrument angular methods (i)offsets from long chord,(ii)successive bisection of arc,(iii)offsets from tangents,(iv)offsets chord produced,(v)Rankine's method of tangent angles	**1**
		10-03-2023	FRI	2.5 Obstacles in curve ranging – point of intersection inaccessible	**1**
				3. BASICS ON SCALE AND BASICS OF MAP: (8P)	**8**
		11-03-2023	SAT	3.1 Fractional or Ratio Scale, Linear Scale, Graphical Scale	**1**
	3rd	13-03-2023	MON	3.2 What is Map, Map Scale and Map Projections	**1**
		14-03-2023	TUE	3.3 How Maps Convey Location and Extent	**1**
		16-03-2023	THU	3.4 How Maps Convey characteristics of features	**1**
		17-03-2023	FRI	3.5 How Maps Convey Spatial Relationship	**1**
		18-03-2023	SAT	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, 3.5.5 Economic & Resources Map,3.5.6 Thematic Map,3.5.7 Climate Map	**1**
	4th	20-03-2023	MON	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, 3.5.5 Economic & Resources Map,3.5.6 Thematic Map,3.5.7 Climate Map	**1**
				4. SURVEY OF INDIA MAP SERIES: (10P)	**10**
		21-03-2023	TUE	4.1 Open Series map	**1**
		23-03-2023	THU	4.1 Open Series map	**1**
		24-03-2023	FRI	4.2 Defense Series Map	**1**
		25-03-2023	SAT	4.2 Defense Series Map	**1**
		27-03-2023	MON	4.3. Map Nomenclature, 4.3.1 Quadrangle Name	**1**

	5th	28-03-2023	TUE	4.3.2 Latitude, Longitude, UTM's	**1**
		31-03-2023	FRI	4.3.4 Contour Lines	**1**
	2nd	03-04-2023	MON	4.3.5 Magnetic Declination	**1**
		04-04-2023	TUE	4.3.6 Public Land Survey System	**1**
		06-04-2023	THU	4.3.7 Field Notes	**1**
				5. BASICS OF AERIAL PHOTOGRAPHY, PHOTOGRAMMETRY, DEM AND ORTHO IMAGE GENERATION: (10P)	**10**
		08-04-2023	SAT	5.1 Aerial Photography:	**1**
	3rd	10-04-2023	MON	5.1.1 Film, Focal Length, Scale	**1**
		11-04-2023	TUE	5.1.2 Types of Aerial Photographs (Oblique, Straight)	**1**
		13-04-2023	THU	5.2 Photogrametry,5.2.1Classification of Photogrammetry	**1**
				5.2.2 Aerial Photogrammetry,5.2.3Terrestrial Photogrammetry	**1**
		15-04-2023	SAT	5.3 Photogrammetry, 5.3.1 Acquisition of Imagery using aerial and satellite platform	**1**
	4th	17-04-2023	MON	5.3.2 Control Survey	**1**
		18-04-2023	TUE	5.3.3 Geometric Distortion in Imagery	**1**
		20-04-2023	THU	5.4 DTM/DEM Generation	**1**
		21-04-2023	FRI	5.5 Ortho Image Generation	**1**
APR				**6. MODERN SURVEYING METHODS : (10P)**	**10**
		22-04-2023	SAT	6.1 Principles	**1**
	5th	24-04-2023	MON	6.1 features and use of (i) Micro-optic theodolite, digital theodolite	**1**
		25-04-2023	TUE	6.1 features and use of (i) Micro-optic theodolite, digital theodolite	**1**
		27-04-2023	THU	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.	**1**
		28-04-2023	FRI	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.	**1**
		29-04-2023	SAT	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.	**1**
	1st	01-05-2023	MON	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.	**1**
		02-05-2023	TUE	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.	**1**
		04-05-2023	THU	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.	**1**
MAY		06-05-2023	SAT	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.	**1**

				7. BASICS ON GPS & DGPS AND ETS: (10P)	**10**
				7.1 GPS-Global positioning system	
		08-05-2023	MON	7.1.1 Working Principle of GPS,GPS Signals 7.1.2 Errors of GPS,Positioning Methods	**1**
	2nd			**7.2 DGPS: - Differential Global Positioning System**	
		09-05-2023	TUE	7.2.1 Base Station Setup,7.2.2 Rover GPS Set up	**1**
		11-05-2023	THU	7.2.3 Download, Post-Process and Export GPS data	**1**
		12-05-2023	FRI	7.2.4 Sequence to download GPS data from flashcards	**1**
		13-05-2023	SAT	7.2.5 Sequence to Post-Process GPS data	**1**
		15-05-2023	MON	7.2.6 Sequence to export post process GPS data,7.2.7 Sequence to export GPS Time tags to file	**1**
	3rd			**7.3 ETS: - Electronic Total Station**	
		16-05-2023	TUE	7.3.1 Distance Measurement ,7.3.2 Angle Measurement	**1**
		18-05-2023	THU	7.3.3 Leveling	**1**
		20-05-2023	SAT	7.3.4 Determining position	**1**
		22-05-2023	MON	7.3.5 Reference networks ,7.3.6 Errors and Accuracy	**1**
				8. BASICS OF GIS AND MAP PREPARATION USING GIS: (10P)	**10**
	4th	23-05-2023	TUE	8.1 Components of GIS, Integration of Spatial and Attribute Information	**1**
E X T R A C L A S S				8.2 Three Views of Information System,8.2.1 Database or Table View, Map View and Model View	**1**
				8.3 Spatial Data Model ,8.4 Attribute Data Management and Metadata Concept	**1**
				8.5 Prepare data and adding to Arc Map.	**1**
				8.6 Organizing data as layers	**1**
				8.7 Editing the layers.	**1**
				8.8 Switching to Layout View.	**1**
				8.9 Change page orientation.8.10 Removing Borders.	**1**
				8.11 Adding and editing map information.	**1**
				8.12 Finalize the map	**1**