

BHADRAK ENGINEERING SCHOOL & TECHNOLOGY (BEST), ASURALI, BHADRAK

LAND SURVEY-II(Th- 01)

TOPIC WISE DISTRIBUTION OF PERIODS & EXPECTED MARKS

Sl. No.	Name of the Chapter	Periods as per Syllabus	Required period	Expected Marks
1.	Tacheometry	09	06	10
2.	Curves	08	07	10
3.	Basics on scale and basics of map	08	07	15
4.	Survey of india map series	10	08	10
5.	Basics of aerial photography, photogrammetry, dem and ortho image generation	10	10	20
6.	Modern surveying methods	10	08	15
7.	Basics on gps&dgps and ets	10	10	10
8.	Basics of gis and map preparation using gis	10	10	10
	TOTAL	75	66	100

Sign of Lect.

Sign of HOD.

Sign of AIC

Sign of Vice Principal

LESSON PLAN

Discipline: Civil Engineering	Semester: sixth(6 th)	Name Of The Faculty: Er Bapuji Nayak
Subject: Land Survey-II	No of days/ week class allotted: Seven(7)	Semester from date: 14. 02.2023 to Date: 23. 05.2023 No of weeks: 15
WEEK	CLASS DAY	THEORY TOPICS
1 st	1 st	Chapter No-01 (Tacheometry) Only concepts; applications without derivation) Principles
	2 nd	stadia constants determination
	3 rd	Stadia tacheometry with staff held vertical and with line of collimation horizontal or inclined Numerical problems
	4 th	Elevations and distances of staff stations – numerical problems
	5 th	<i>Possible Question Answer Discussion</i>
	6 th	Chapter No-02 (Curves) Compound, reverse and transition curve, Purpose & use of different types of curves in field.
	7 th	Elements of circular curves, numerical problems
2 nd	1 st	Preparation of curve table for Setting out
	2 nd	Setting out of circular curve by chain and tape and by instrument angular methods (i) offsets from long chord(ii) successive bisection of arc,
	3 rd	(iii) offsets from tangents,
	4 th	iv) offsets from chord produced, (v) Rankine's method of tangent angles (No derivation)
	5 th	Obstacles in curve ranging – point of intersection inaccessible
	6 th	<i>Possible Question Answer Discussion</i>
	7 th	Chapter No-03 (Basics On Scale And Basics Of Map) Fractional or Ratio Scale, Linear Scale, Graphical Scale
3 rd	1 st	What is Map, Map Scale and Map Projections
	2 nd	How Maps Convey Location and Extent
	3 rd	How Maps Convey characteristics of features
	4 th	How Maps Convey Spatial Relationship
	5 th	Classification of Maps- Physical Map
	6 th	Topographic Map
	7 th	Political Map ,Road Map
4 th	1 st	Monthly Test- 1
	2 nd	Climate Map, Thematic Map, Economic & Resources Map.
	3 rd	<i>Possible Question Answer Discussion</i>

	4 th	Chapter NO-04 (Survey Of India Map Series) Defense Series Map, Open Series map
	5 th	Map Nomenclature
	6 th	Quadrangle Name
	7 th	Contour Lines, Latitude, Longitude, UTM's
5 th	1 st	Magnetic Declination
	2 nd	Field Notes ,Public Land Survey System
	3 rd	Possible Question Answer Discussion
	4 th	Chapter NO-05 (Basics Of Aerial Photography, Photogrammetry, Dem And Ortho Image Generation) Film, Focal Length, Scale ,Aerial Photography
	5 th	Types of Aerial Photographs (Oblique,)
	6 th	Types of Aerial Photographs (Straight)
	7 th	Classification of Photogrammetry ,Photogrammetry
6 th	1 st	Aerial Photogrammetry ,Terrestrial Photogrammetry, Photogrammetry Process
	2 nd	Acquisition of Imagery using aerial and satellite platform Control Survey
	3 rd	Geometric Distortion in Imagery, Application of Imagery and its support data Orientation and Triangulation Stereoscopic Measurement 19.9.1 X-parallax 19.2.2 Y-parallax
	4 th	Ortho Image Generation
	5 th	Possible Question Answer Discussion
	6 th	Principles,
	7 th	features of (i) Micro-optic theodolite and use of (i) Micro-optic theodolite
7 th	1 st	Monthly Test- 2
	2 nd	digital theodolite
	3 rd	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.
	4 th	Possible Question Answer Discussion
	5 th	chapterNo.-07 (BASICS ON GPS & DGPS AND ETS)
	6 th	Working principle of GPS,GPS Signals
	7 th	Errors of GPS, Positioning Methods
8 th	1 st	DGPS: - Differential Global Positioning System
	2 nd	Base Station Setup Rover GPS Set up
	3 rd	Download, Post-Process and Export GPS data
	4 th	Sequence to download GPS data from flashcards

	5 th	Sequence to Post-Process GPS data
	6 th	Sequence to export post process GPS data Sequence to export GPS Time tags to file
	7 th	ETS: - Electronic Total Station ,Distance Measurement ,Angle Measurement
9 th	1 st	Leveling, Determining position
	2 nd	Reference networks, Errors and Accuracy
	3 rd	Possible Question Answer Discussion
	4 th	Chapter NO-08 (Basics Of GIS And Map Preparation Using GIS) Components of GIS, Integration of Spatial and Attribute Information
	5 th	Three Views of Information System
	6 th	Database or Table View, Map View and Model View ,Spatial Data Model
	7 th	Attribute Data Management and Metadata Concept
10 th	1 st	Monthly Test- 3
	2 nd	Prepare data and adding to Arc Map
	3 rd	Organizing data as layers Editing the layers. ,Switching to Layout View.
	4 th	Change page orientation, Removing Borders
	5 th	Adding and editing map information, Finalize the map
	6 th	Possible Question Answer Discussion
	7 th	Review Class for Chapter No.- 01
11 th	1 st	Review Class for Chapter No.- 02
	2 nd	Review Class for Chapter No.- 03
	3 rd	Review Class for Chapter No.- 03
	4 th	Review Class for Chapter No.- 04
	5 th	Review Class for Chapter No.- 04
	6 th	Review Class for Chapter No.- 05
	7 th	Review Class for Chapter No.- 05
12 th	1 st	Review Class for Chapter No.- 06
	2 nd	Review Class for Chapter No.- 06
	3 rd	Review Class for Chapter No.- 06
	4 th	Review Class for Chapter No.- 07
	5 th	Review Class for Chapter No.- 07
	6 th	Review Class for Chapter No.- 07
	7 th	Review Class for Chapter No.- 07
13 th	1 st	Monthly Test- 4
	2 nd	Review Class for Chapter No.- 07
	3 rd	Review Class for Chapter No.- 08

	4 th	Review Class for Chapter No.- 08
	5 th	Review Class for Chapter No.- 08
	6 th	Review Class for Chapter No.- 08
	7 th	Review Class for Chapter No.- 05
14 th	1 st	Review Class for Chapter No.- 05
	2 nd	Review Class for Chapter No.- 06
	3 rd	Review Class for Chapter No.- 06
	4 th	Review Class for Chapter No.- 07
	5 th	Review Class for Chapter No.- 07
	6 th	Review Class for Chapter No.- 08
	7 th	Review Class for Chapter No.- 08
15 th	1 st	Previous Year (S- 22) Question Answer Discussion
	2 nd	Previous Year (S- 21) Question Answer Discussion
	3 rd	Previous Year (S- 20) Question Answer Discussion
	4 th	Previous Year (S- 19) Question Answer Discussion
	5 th	Previous Year (S- 22) Question Answer Discussion
	6 th	Previous Year (S- 21) Question Answer Discussion
	7 th	Previous Year (S- 20) Question Answer Discussion

Chapters Covered Up to I.A 1, 2, 3, 4& 5