

LESSON PLAN

Discipline: Mining Engineering			Semester: 3 rd	Name of the Teaching Faculty: SHRI P.S.DASH	
Subject: Mine Survey-I (Theory-2)			No. of Days/Week Class allotted: 04/week	Semester Start Date: 15.09.2022 Semester End Date: 22.12.2022 No. of Weeks:15	
MONTH	WEEK	NO. OF PERIODS AVAILABLE	CLASS DAY	TOPICS	THEORY TO BE COVERED
SEPTEMBER	3 rd	02	15.09.2022		Introduction
			16.09.2022		Preliminary Idea about Survey & its various terminology
	4 th	04	19.09.2022	Chain Survey	Give survey conventional signs, abbreviation used. Give standards of lining, inking and coloring.
			20.09.2022		Describe selection of scales used. Explain principle of chain surveying. Describe instruments used and checking their correctness.
			22.09.2022		Explain ranging and chaining of a line. Calculate errors in chaining. Explain obstruction while chaining.
			23.09.2022		Describe chaining along a sloping ground. Describe use of optical square and line range and checking optical square for correctness.
	5 th	04	26.09.2022	Compass Survey	Describe offsets and their measurements. Give reference sketches of stations.
			27.09.2022		Give procedure of chain surveying. Explain field booking and plotting of chain survey.
			29.09.2022		Describe prismatic compass, its adjustments and use. Explain true meridians, magnetic meridian, grid line meridian and arbitrary meridian.
			30.09.2022	MONTHLY TEST-1	
OCTOBER	3 rd	02	13.10.2022	Compass Survey	Explain W.C.B. and Q.B. and conversion from one to other. Find out fore and back bearing and their conversion. Compute angles from bearing and bearing angles
			14.10.2022		Define local alteration Determine local alteration and necessary correction to the bearing.
	4 th	04	17.10.2022		Explain closed and open compass surveying and its plotting. Give procedure of field booking in compass and chain traverses.
			18.10.2022		Explain adjustment of closing error in compass traversing. Describe surveyor compass (miner's dial), its adjustment and use Compare prismatic compass with surveyor compass.

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OCTOBER	5 th	03	20.10.2022	Plane Table Survey	Fundamentals of Plane Table Survey.
			21.10.2022		Explain two point problems.
			25.10.2022		Explain three point problems and its solution by tracing paper method.
			27.10.2022		Explain three point problems and its solution by tracing paper method.
			28.10.2022	MONTHLY TEST-2	
NOVEMBER	2 nd	03	7.11.2022	Plane Table Survey	Describe advantages and disadvantages of plane table.
			10.11.2022	Computataion of Areas	Explain methods of determining areas.
			11.11.2022		Find out areas from offset to a base line using
	3 rd	04	14.11.2022		<ul style="list-style-type: none"> ▪ Mid ordinate rule ▪ Average ordinate rule ▪ Trapezoidal rule ▪ Simpson's rule
			15.11.2022		
			17.11.2022		Compute area by Planimeter and from graph paper
			18.11.2022	Levelling	Define benchmark M.S.L. Dumpy level.
	4 th	03	21.11.2022		Adjust dumpy level, modern levels (Auto Level & etc.), and precise staff
			24.11.2022		
			25.11.2022		Describe methods of levelling-- Rise & fall method, height of instrument
	5 th	02	28.11.2022		Errors in ordinary leveling
			29.11.2022	MONTHLY TEST-3	
DECEMBER	1st	02	01.12.2022	Levelling	Explain trigonometric leveling, geometrical leveling, and physical leveling
			02.12.2022		

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DECEMBER	2 nd	04	05.12.2022	Calculation of ore	Classify reserves.
			06.12.2022		Evaluate reserves by exploratory
			08.12.2022		
			09.12.2022		Calculate primary ore reserve by material balance method
	3 rd	04	12.12.2022	Theodolite	Describe temporary and permanent adjustment of Theodolite.
			13.12.2022		Describe the principles of operation & describe different parts.
			15.12.2022		Measure Horizontal & Vertical angles
			16.12.2022		Describe setting of the instrument.
	4 th	03	19.12.2022		Explain Traversing with Theodolite.
			20.12.2022		
			22.12.2022		MONTHLY TEST-4

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14/12/22

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