

Discipline: MINING		Semester: 3rd	Name of the Teaching Faculty: Debashush pradhan	
Subject: MINE SURVEY-I		No of Days/Week, Class Allotted: _____	Semester From date: 01.10.21 To date: 18.01.22	No. of Weeks: _____
WEEK	Class Day	Theory Topics		
1st	1st	Introduction of survey and determine. How many types of chain survey.		
	2nd	Give survey conventional signs, abbreviation used. Give standards of lining, linking and coloring.		
	3rd	Describe selection of scales used. Explain principle of chain surveying.		
	4th	Describe instruments used and checking their correctness. Explain ranging and chaining of a line.		
	5th	calculate errors in chaining. Explain obstruction while chaining.		
2nd	1st	Describe chaining along a sloping ground. Describe use of optical square and line range and checking optical square for correctness.		
	2nd	Describe offsets and their measurements. Give reference sketches of stations.		
	3rd	Give procedure of chain surveying. Explain field booking and plotting of chain survey.		
	4th			
3rd	1st	Define compass survey. types of compass survey and define bearing.		
	2nd	Describe prismatic compass, its adjustments and use. Explain true meridian, magnetic meridian, grid line meridian and arbitrary meridian.		
	3rd	Explain W.C.B. and Q.B. and conversion from one to other. Find out fore and back bearing and bearing angles.		
	4th	Define local alteration. Determine local alteration and necessary correction to the bearing.		
	5th			

WEEK	Class Day	Theory Topics
4th	1st	Explain closed and open compass surveying and its plotting. Give procedure of field booking in compass and chain traversing.
	2nd	Explain adjustment of closing error in compass traversing. Describe surveyor compass its adjustment and use.
	3rd	Compare prismatic compass with surveyor compass. Define two point problem and three point problem.
	4th	Introduction of plane table survey.
	5th	Fundamental of plane table survey, x Classification of plane table survey, 12
5th	1st	Explain fundamental of plane table survey, x Classification of plane table survey.
	2nd	Explain two point problem and Three-point Problem.
	3rd	Explain three point problems and its solution by tracing paper method.
	4th	Describe advantages and disadvantages of plane table.
	5th	
6th	1st	Explain methods of determining computation of areas.
	2nd	Find out areas from offset to a base line using Mid ordinate rule.
	3rd	Explain Average ordinate rule. Define Trapezoidal rule.
	4th	Describe Simpson's rule. Compute area by planimeter and from graph paper.
	5th	

WEEK	Class Day	Theory Topics
7th	1st	Define levelling. Describe the methods and procedures of levelling.
	2nd	Define benchmark and M.S.L. Dumpy level.
	3rd	Describe methods of leveling, Rise and Fall method, height of instrument, physical leveling.
	4th	Explain different parts of dumpy level with level diagram. Errors in ordinary leveling, geometrical leveling.
	5th	
8th	1st	Define mean sea level, Adjust dumpy level, modern levels and precise staff.
	2nd	Explain reciprocal levelling, subsidence leveling, setting out gradient, trigonometric leveling.
	3rd	Define calculation of Ore Reserves, classify reserves.
	4th	State classification of mineral reserves, Evaluate reserves by exploratory.
	5th	
9th	1st	Calculate primary Ore reserve by material balance method and decline curve method.
	2nd	Introduction of theodolite, How many types of theodolite, and uses and Explain parts name.
	3rd	Describe temporary and permanent adjustment of Theodolite.
	4th	Describe the principles of operation and describe different parts.
	5th	

WEEK	Class Day	Theory Topics
10 th	1st	Practically measured Horizontal angle and vertical angles.
	2nd	Describe setting of the instrument.
	3rd	Explain Traversing with theodolite.
	4th	Complete revision of theodolite class.
	5th	
11 th	1st	Revise class
	2nd	Revise class
	3rd	Revise class
	4th	Revise class
	5th	
12 th	1st	Revise class
	2nd	Revise class
	3rd	Revise class
	4th	Revise class
	5th	

WEEK	Class Day	Theory Topics
13 th	1st	Revise class
	2nd	Re vise class
	3rd	Revise class
	4th	Doubt class
	5th	
14 th	1st	Doubt class
	2nd	Doubt class
	3rd	Doubt class
	4th	Doubt class
	5th	
	1st	
	2nd	
	3rd	
	4th	
	5th	