

DEPARTMENT OF MINING ENGINEERING

LESSON PLAN

Discipline: Mining Engineering				Semester: 6TH	Name of the Teaching faculty: Rajiv Lochan Bal
Subject: Mine Machinery – II		No of Days/Week class allotted: 4		CHAPTER	Semester from Date:14-02-23 To Date: 23-5-23 weeks: 16
Month	Week	Period	Class Day		Topics
FEBRUARY	3rd	3	14.2.23	1.0 Underground face machineries	Describe constructional features, operation, principle & use of electric coal drill
			15.2.23		State types of drill rods & drill bits used in electric coal drill.
			17.2.23		Describe basic constructional features of gathering arm loader.
	4th	4	20.2.23		Describe basic constructional features of scraper loader.
			21.2.23		Describe basic constructional features of side discharge loader.
			22.2.23		Describe basic constructional features of load & haul loader.
			25.2.23		Describe basic constructional features & operation principle of jack hammer drill.
	5th	2	27.2.23		Describe basic constructional features & operation principle of air leg rock drill.
			28.2.23		Describe basic constructional features & operation principle of road header.
					Describe basic constructional features & operation principle of Shearer loader.
MARCH	1st	2	1.3.23	2.0 Opencast machineries	Describe basic constructional features of surface miner.
			4.3.23		Describe basic constructional features of dragline.
	2nd	2	6.3.23		Describe basic constructional features of shovel .
			11.3.23		Describe basic constructional features of backhoe.
	3rd	4	13.3.23		Describe basic constructional features of bucket wheel excavator.
			14.3.23		Describe basic constructional features of dumper.
			15.3.23		Describe basic constructional features of dozer.
			18.3.23		Describe basic constructional features of scraper.
	4th	4	20.3.23		Describe basic constructional features of road grader.
			21.3.23	3.0 Mine pumps	Classify mine pumps.
			22.3.23		Describe constructional features, working & use of ram pumps
			25.3.23		
	5th	3	27.3.23		MONTHLY CLASS TEST 1

APRIL	1st	4	28.3.23		Centrifugal & turbine pumps.
			29.3.23		Describe constructional features of centrifugal pump.
			3.4.23		Describe constructional features of turbine pumps.
			4.4.23		State principle of centrifugal & turbine pumps & its applicability.
	2nd	4	5.4.23		Explain balancing the axial thrust of turbine pumps.
			8.4.23		Draw characteristic curves for turbine pumps.
			10.4.23		Solve numerical problems on centrifugal pumps.
			11.4.23		Solve numerical problems on turbine pumps.
	3rd	4	12.4.23		Describe constructional features and working principle & use of roto pump
			15.4.23		Describe constructional features & working principle of sinking pump.
			17.4.23		State procedure of suspension in shaft.
			18.4.23		Previous year questions, quiz.
	4th	4	19.4.23		MONTHLY CLASS TEST 2.
			22.4.23	4.0 Bore hole pump	Describe constructional features & working of bore hole pump.
			24.4.23		State installation of bore hole pump
MAY	1st	4	25.4.23	5.0 Pipes and valves	State types of pipe & valves used in Mines.
			26.4.23		INTERNAL ASSESMENT
			29.4.23		Describe constructional features of various type of valves.
	2nd	4	1.5.23		Describe constructional features of various type of valves.
			2.5.23		State & describe different types of pipe joints.
			3.5.23		State & describe different types of pipe joints.
			6.5.23		Describe support of laying main pipe in shaft.
	3rd	4	8.5.23		Describe support of laying main pipe in shaft.
			9.5.23		Discuss the Pipe line layout.
			10.5.23		Discuss the Pipe line layout.
	4th	2	13.5.23	Classes beyond Syllabus	Discuss Belt conveyer system of transportation
			15.5.23		Discuss different types of locomotive, construction, operation and use
			16.5.23		previous year question disscussion
			17.5.23		previous year question disscussion
	4th	2	20.5.23		Mock Test
			22.5.23		Doubt Clear
			23.5.23		Doubt Clear

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