

DEPARTMENT OF MINING ENGINEERING

LESSON PLAN

Discipline: MINING ENGG.			Semester: 5th	Name of the Teaching faculty: Rajiv Lochan Bal	
Subject: MINE MACHINERY – I Subject Code- TH4			No of Days/Week class allotted: 4	Semester from Date: 15/9/2022 -- 22/12/22 No of weeks: 14 No. of Period Available: 50	
Month	Week	No of periods available	Class Day	Theory topics to be covered	
September	1st	2P	17.9.22	<u>Briefing About the Syllabus</u> <u>Wire Rope</u> State the types of wire ropes used in Mines.	
			17.9.22	State the types of wire ropes used in Mines.	
	2nd	4P	19.9.22	Explain lay of wire ropes.	
			20.9.22	Explain lay of wire ropes.	
			24.9.22	Define factor of safety to wire ropes nominal.	
			24.9.22	Define actual factor of safety of wire ropes.	
	3rd	4P	26.9.22	State factors influencing the F.O.S.	
			27.9.22	State factors influencing the F.O.S.	
			1.10.22	State efficiency of rope construction, space factor & cross sectional area rope.	
			1.10.22	Class test-01	
October	4th	4P	10.10.22	State factors affecting deterioration of ropes.	
			11.10.22	State factors affecting deterioration of ropes.	
			15.10.22	Describe care & maintenance of ropes.	
			15.10.22	Describe care & maintenance of ropes.	
	5th	4P	17.10.22	State & describe testing & examination of wire ropes.	
			18.10.22	Give the procedure of splicing of wire rope	
			22.10.22	Give the procedure of splicing of wire rope	
			22.10.22	Monthly Test-01 Test results & Discussion	
	6th	3P	25.10.22	Describe rope capel for haulage winding & recapping.	
			29.10.22	<u>Rope Haulage</u> Transportation in mines by rope haulage.	
			29.10.22	State type of rope haulage	
	7th	4P	31.10.22	Describe various types of rope haulage with simple sketches.	

November			1.11.22	State & describe different type of safety devices on rope haulage roadways.
			5.11.22	State & describe different types of clips & couplings.
			5.11.22	Headgear State function of headgear.
	8th	3P	7.11.22	Describe constructional features of headgear pulley.
			12.11.22	Define angle of fleet.
			12.11.22	Cage & Shaft Fittings Describe cage, cage suspension gear.
	9th	4P	14.11.22	Internal Assessments/Class test
			15.11.22	Describe detaching hooks & its function, safety catch at headgear & keps.
			19.11.22	State types of guide.
			19.11.22	State & describe rigid guide & flexible guide
	10th	4P	21.11.22	State & describe guide rope suspension & tensioning arrangement.
			22.11.22	Winding Drum State different profiles of winding Drum.
			26.11.22	Describe different types of winding brake.
			26.11.22	Describe various types of safety devices on winding system.
	11th	4P	28.11.22	Describe various types of safety devices on winding system.
			29.11.22	Friction Winding State & describe principle & constructional features of ground-mounted koepe winder.
3.12.22			State & describe principle & constructional features of tower-mounted koepe winder.	
3.12.22			State advantages & disadvantages of koepe winding.	
December	12th	4P	5.12.22	Describe multirope system of koepe winding.
			6.12.22	Skip Winding Describe constructional features bottom discharge skip, Top discharge skip
			10.12.22	Compare skip winding cage winding.
			10.12.22	Pit top and pit bottom layout State factors affecting pit top & pit bottom layouts.
	13th	4P	12.12.22	CLASS TEST 2
			13.12.22	Describe different types of pit top & pit bottom car/tub circuit layouts.
			17.12.22	Describe different types of pit top & pit bottom car/tub circuit layouts.
			17.12.22	Describe different types of pit top & pit bottom car/tub circuit layouts.
	14th	2P	19.12.22	Revision & Previous year question & answer discussion
			20.12.22	Revision & Previous year question & answer discussion

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