

GOVERNMENT POLYTECHNIC JAIPUR

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DEPARTMENT OF MINING ENGINEERING

LESSON PLAN

Discipline: MINING	Semester: 6TH	Name of the Teaching faculty: Prabhudutta Mishra	
Subject: MINE MACHINERY – II	No of Days/Week class allotted: 4	Semester from Date: 14/02/23 No of weeks: 15	To Date: 23/05/23
Week	Class Day	Topics	
1st	1st	Describe constructional features of electric coal drill	
	2nd	Describe constructional features, operation of electric coal drill	
	3rd	Describe constructional features, operation, principle & use of electric coal drill	
	4th	State types of drill rods & drill bits used in electric coal drill.	
2nd	1st	State types of drill rods & drill bits used in electric coal drill.	
	2nd	Describe basic constructional features of gathering arm loader.	
	3rd	Describe basic constructional features of scraper loader.	
	4th	Describe basic constructional features of side discharge loader.	
3rd	1st	Describe basic constructional features of load & haul loader.	
	2nd	Describe basic constructional features & operation principle of jack hammer drill.	
	3rd	Describe basic constructional features & operation principle of air leg rock drill.	
	4th	Describe basic constructional features & operation principle of road header.	
4th	1st	Describe basic constructional features & operation principle of road header.	
	2nd	Describe basic constructional features & operation principle of Shearer loader.	
	3rd	CLASS TEST-1	
	4th	Describe basic constructional features & operation principle of Shearer loader.	
5th	1st	Describe basic constructional features of surface miner.	
	2nd	Describe basic constructional features of dragline.	
	3rd	Describe basic constructional features of shovel .	
	4th	Describe basic constructional features of BACKHOE .	
6th	1st	Describe basic constructional features of bucket wheel excavator.	
	2nd	Describe basic constructional features of dumper.	
	3rd	Describe basic constructional features of dozer.	
	4th	Describe basic constructional features of scraper.	
7th	1st	Describe basic constructional features of road grader.	
	2nd	Classify mine pumps.	
	3rd	Describe constructional features, working & use of ram pumps	
	4th	Describe constructional features, working & use of ram pumps	
8th	1st	Describe constructional features, working & use of ram pumps	
	2nd	INTERNAL-1	
	3rd	Describe constructional features of centrifugal pump.	
	4th	Describe constructional features of turbine pumps.	

9th	1st	State principle of centrifugal pumps & its applicability.
	2nd	State principle of turbine pumps & its applicability.
	3rd	Explain balancing the axial thrust of turbine pumps.
	4th	Draw characteristic curves for turbine pumps.
10th	1st	Solve numerical problems on centrifugal pumps.
	2nd	Solve numerical problems on turbine pumps.
	3rd	Describe constructional features and working principle & use of roto pump
	4th	CLASS TEST 2
11th	1st	Describe constructional features and working principle & use of roto pump
	2nd	Describe constructional features & working principle of sinking pump.
	3rd	Describe constructional features & working principle of sinking pump.
	4th	State procedure of suspension in shaft.
12th	1st	Describe constructional features & working of bore hole pump.
	2nd	Describe constructional features & working of bore hole pump.
	3rd	State installation of bore hole pump.
	4th	State types of pipe & valves used in Mines.
13th	1st	Describe constructional features of various type of valves.
	2nd	Describe constructional features of various type of valves.
	3rd	State and describe various types of pipes joints.
	4th	State and describe various types of pipes joints.
14th	1st	Describe supporting of laying main pipes in shaft
	2nd	Discuss the Pipe line layout.
	3rd	INTERNAL 2
	4th	PREVIOUS YEAR QUESTION DISCUSSION
15th	1st	REVISION/DOUBT CLEARING CLASSES/REMEDIAL CLASSES
	2nd	REVISION/DOUBT CLEARING CLASSES/REMEDIAL CLASSES
	3rd	REVISION/DOUBT CLEARING CLASSES/REMEDIAL CLASSES
	4th	REVISION/DOUBT CLEARING CLASSES/REMEDIAL CLASSES

RECOMMENDED BOOKS

SL NO.	Name of Author	Title of Books
1	H. Cotton	Electrical equipment in Mine
2	Desmukh & Desmukh	Winning and Working of Iron Ore
3	D.J.Desmukh	E.M.T. Vol.-III


Signature of Faculty