

## Academic Lesson Plan of Summer 2024

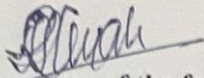
Department : MINING ENGG.	Semester : 6TH	Name of the Teaching Faculty : RUDRA MOHAN NAYAK
Subject : MINE MACHINERY -II	No. of Days/per week class allotted : 4Period/week	Semester from : 15TH JANUARY 2024
		No of Weeks : 15 Weeks
		Topic to be covered :
WEEK	DAYS	TOPIC
1st Week	1st	Describe constructional features, operations, principle & used of electric coal drill
	2nd	Describe constructional features, operations, principle & used of electric coal drill
	3rd	State types of drill rods and drill bits used in electric coal drill.
	4th	Describe basic constructional features of gathering arm loader.
2nd Week	1st	Describe basic constructional features of scraper loader.
	2nd	Describe basic constructional features of side discharged loader.
	3rd	Describe basic constructional features of load and haul loader.
	4th	Describe basic constructional features and operation principle of jack hammer drill.
3rd Week	1st	Describe basic constructional features and operation principle of air leg rock drill
	2nd	Describe basic constructional features and operation principle of road header
	3rd	Describe basic constructional features and operation principle of shearer loader.
	4th	Describe basic constructional features of surface miner.
4th Week	1st	Describe basic constructional features of dragline.
	2nd	Describe basic constructional features of shovel.
	3rd	Describe basic constructional features of shovel.
	4th	Describe basic constructional features of backhoe.
5th Week	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.
6th Week	1st	Describe basic constructional features of road grader.
	2nd	Classify Mines Pumps.
	3rd	Describe constructional features, working and use of ram Pumps
	4th	Describe constructional features, working and use of ram Pumps
7th Week	1st	Centrifugal & turbine Pumps.
	2nd	Describe constructional features of centrifugal Pumps.
	3rd	Describe constructional features of centrifugal Pumps.



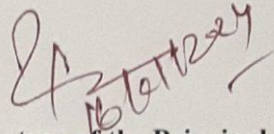
WEEK	DAYS	TOPIC
	4th	Describe constructional features of Turbine Pumps.
8th Week	1st	Describe constructional features of Turbine Pumps.
	2nd	Describe constructional features of Turbine Pumps.
	3rd	State principle of of centrifugal and turbine pumps and its applicability
	4th	State principle of of centrifugal and turbine pumps and its applicability
9th Week	1st	Explain balancing the axial thrust of turbine pumps.
	2nd	Draw characteristics curves for turbine pumps.
	3rd	Draw characteristics curves for turbine pumps.
	4th	Solve numerical problems on centrifugal pumps.
10th Week	1st	Solve numerical problems on centrifugal pumps.
	2nd	Solve numerical problems on turbine pumps.
	3rd	Solve numerical problems on turbine pumps.
	4th	Describe constructional features and working principle and use of roto pumps.
11th Week	1st	Describe constructional features and working principle and use of roto pumps.
	2nd	Describe constructional features and working principle and use of sinking pumps.
	3rd	Describe constructional features and working principle and use of sinking pumps.
	4th	State procedure of suspension in shaft.
12th Week	1st	State procedure of suspension in shaft.
	2nd	Describe constructional features and working of bore hole pump.
	3rd	Describe constructional features and working of bore hole pump.
	4th	State installation of bore hole pump.
13th Week	1st	State installation of bore hole pump.
	2nd	State types of pipes and valves used in mines.
	3rd	Describe constructional features of various types of valves.
	4th	State and describe different types of pipe joints.
14th Week	1st	Describe support of laying main pipe in shaft.
	2nd	Discuss the pipeline layout.
	3rd	INTERNAL
	4th	Privious year Question Discussion.
15th Week	1st	Revision and Doubt clearing Class.
	2nd	Revision and Doubt clearing Class.
	3rd	Revision and Doubt clearing Class.



WEEK	DAYS	TOPIC
	4th	Revision and Doubt clearing Class.



Signature of the faculty



Signature of the Principal