

SYNERGY SCHOOL OF ENGINEERING, BANAMALIPRASAD
DHENKANAL

DEPARTMENT OF MINING ENGINEERING

LESSON PLAN

Discipline: MINING	Semester: 6TH	Name of the Teaching faculty: BISWAMBAR MAJHI	
Subject: MINE MACHINERY	No of Days/Week 4	Semester from Date:16/01/24 No of weeks:15	To Date:26/04/24
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	

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.Cottor	Electrical equipment in Mine
2	Desmukh & Desmukh	Winning and Working of Iron Ore
3	DJ.Desmukh	E.M.T.Vol.-III


Signature of Faculty