



SYNERGY SCHOOL OF ENGINEERING, DHENKANAL

LESSON PLAN

SESSION(2026-27)

Discipline: MINING	Semester:5th	Name of the Teaching faculty:-MITHUN PALEI(LECT.MINING)
Subject: UNDERG- ROUND METAL MINING	No of Days/Week class allotted:-3	Semester from Date:- 01/07/26 To Date:- 05/11/26 No of weeks:15
Week	Class Day	Topics
1st	1st	i)Lesson plan,Syllabus ii)Importance of this Course,Course Outcomes iii)Exams,Class Tests,Introduction to the course.
	2nd	Classify modes of entries-Adits,applicability of entries.
	3rd	Classify modes of entries-inclines,applicability of entries
2nd	1st	Explain formation of blocks of mineral deposit.
	2nd	Explain level interval.
	3rd	Explain level interval.
3rd	1st	Describe Two compartment method
	2nd	Describe Two compartment method
	3rd	Describe Jora raise lift.
4th	1st	Describe Long hole drilling method./Vertical Crater retreat (VCR method
	3rd	Describe Alimak raise climber
	4th	Describe Alimak raise climber
5th	1st	Describe Raise borer.
	2nd	CLASS TEST
	3rd	Describe Raise borer.
6th	1st	Describe Development of Ore passe system.
	2nd	comparative study between coal and metal Mining.
	3rd	Classify stoping methods with application
7th	1st	Preparatory arrangement for stoping.
	2nd	Describe the Open stoping methods with layout.
	3rd	Describe the Open stoping methods with layout.
8th	1st	Describe the Open stoping methods with layout.
	2nd	Describe the Open stoping with pillar support
	3rd	Describe the Open stoping with pillar support.
	1st	Explain Cut &fill stoping methods with layout.
	2nd	Explain Cut &fill stoping methods with layout.

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10th	3rd	Explain Square set stoping methods with layout.
	1st	Explain Square set stoping methods with layout.
	2nd	Explain Block caving methods with layout
11th	3rd	Explain Sub-level caving methods with layout.
	1st	Explain Top slicing methods with layout
	2nd	Describe conventional methods of drifting. Find out direction gradient of drift
	3rd	Describe drilling and blasting, support, transportation, drainage, ventilation in mechanised method of drifting.
12th	1st	Explain causes and prevention of rock burst.
	2nd	Explain causes and prevention of rock burst.
	3rd	Describe use of jumbo drill with air leg.
13th	1st	Describe Loading & Transportation System of L.H.D.
	2nd	Describe Loading & Transportation System of L.P.D.T. (Low Profile Dump Truck)
	3rd	Describe Loading & Transportation System of rocker shovel.
14th	1st	Describe Loading & Transportation System of draw points
	2nd	Describe Loading & Transportation System of Scraper.
	3rd	Describe Loading & Transportation System of Scraper.
15th	1st	REVISION/DOUBT CLEARING CLASS
	2nd	REVISION/DOUBT CLEARING CLASS
	3rd	REVISION/DOUBT CLEARING CLASS

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