ORISSA SCHOOL OF MINING ENGINERRING
A/ P: Keonjhar Dist.: Keonjhar Odisha- 758001
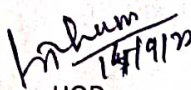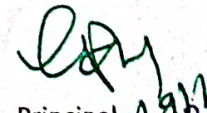### Website: www.osme.co.in E-mail: osme_keonjhar@yahoo.com

DEPARTMENT OF MINING ENGINEERING
LESSON PLAN

Discipline: MINING ENGINEERING	Semester: 5th	Name of the Teaching faculty: Ghanshyam Dhurua
Subject: UNDER GROUND METAL MINING Subject Code: TH5	No of Days/Week class allotted: 4	Semester from Date: 15/9/2022 - 22/12/2022 No of weeks: 14 No. of Period Available: 52

Month	Week	No of periods available	Class Day	Theory topics to be covered
September	1st	2P	15.09.22	**Briefing About the Syllabus** **Access to ore body** Classify modes of entries – Adits, applicability of entries.
			15.09.22	Classify modes of entries – inclines, applicability of entries.
	2nd	4P	19.09.22	Classify modes of entries – shafts ,applicability of entries.
			20.09.22	**Devlopment in Underground Metal Mines.** Explain formation of blocks of mineral deposit.
			22.09.22	Explain formation of blocks of mineral deposit.
			22.09.22	Explain level interval
	3rd	4P	26.09.22	Describe Open raising method
			27.09.22	Describe Open raising method
			29.09.22	Describe Two compartment method
			29.09.22	**Monthly Test-01**
October	4th	4P	10.10.22	Jora raise lift Method
			11.10.22	Jora raise lift Method
			13.10.22	Describe Long hole drilling method.
			13.10.22	Vertical Crater retreat (VCR) method
	5th	4P	17.10.22	**Monthly Test-01 Test results & Discussion**
			18.10.22	Describe Alimak raise climber
			20.10.22	Describe Raise borer.
			20.10.200	Development of Ore passes system.
	6th	3P	25.10.22	Development of Ore passes system.
			27.10.22	**Give a Comparative Study between coal and Metal** comparative study between coal and metal Mining.
			27.10.22	comparative study between coal and metal Mining.
November	7th	4P	31.10.22	**Stoping Method**
			1.11.22	Classify stoping methods with application
			3.11.22	Factors affecting methods of stopping.
			3.11.22	Preparatory arrangement for stoping.

			7.11.22	Preparatory arrangement for stoping.
	8th	3P	10.11.22	Describe the Open stoping methods with layout.
			10.11.22	Describe the Open stoping methods with layout.
			14.11.22	Shrinkage stoping methods with layout.
	9th	4P	15.11.22	Shrinkage stoping methods with layout.
			17.11.22	**Revision & Doubt clearing Classes.**
			17.11.22	**Internal Assessment/Class test**
			21.11.22	Cut & fill stoping methods with layout.
	10th	4P	22.11.22	Square set stoping methods with layout.
			24.11.22	Explain Block caving methods with layout.
			24.11.22	Explain Sub-level caving methods with layout.
			28.11.22	Explain Top slicing methods with layout.
December	11th	4P	29.11.22	**Stone Drifting** Describe conventional methods of drifting
			1.12.22	Find out direction gradient of drift.
			1.12.22	Describe drilling and blasting, support, transportation, in mechanized method of drifting. Drainage, ventilation in mechanized method of drifting.
	12th	4P	5.12.22	Describe lighting arrangements, organization and supervision in mechanized method of drifting.
			6.12.22	**Monthly Test-2**
			8.12.22	**Rock Brust** Explain causes and prevention of rock burst.
			8.12.22	**Face Mechanization** Describe use of jumbo drill with air leg.
	13th	4P	12.12.22	Describe Loading & Transportation System of L.H.D.
			13.12.22	**Monthly Test-02 Test results & Discussion**
			15.12.22	Describe Loading & Transportation System of L.P.D.T. (Low Profile Dump Truck)
			15.12.22	Describe Loading & Transportation System of L.P.D.T. (Low Profile Dump Truck)
	14th	4P	19.12.22	Loading & Transportation System of rocker shovel.
			20.12.22	Loading & Transportation System of rocker shovel.
			22.12.22	Revision & Previous year question & answer discussion
			22.12.22	Revision & Previous year question & answer discussion

Prepared By-
Ghanshyam Dhurua
Sr. Lect.(Mining)
OSME,Keonjhar

HOD
Mining Engg.
OSME,Keonjhar

Principal
OSME,Keonjhar