

Dicipline: MINING	Semester: 5th	Name of the Teaching Faculty:	
Subject: Underground metal mine.	No of Days/Week Class Allotted: _____	Semester From date: 15/09/22 To date 22/12/22	No. of Weeks: 14

WEEK	Class Day	Theory Topics
From 15/09/22 to 16/09/22	1st	Under hand stopping, Breast Stopping
	2nd	Open Stopping with pullare support.
	3rd	Shrinkage stopping
	4th	Advantages & Disadvantages of Shrinkage Stopping.
	5th	
From 19/09/22 to 24/09/22	1st	cut & Fill Stopping
	2nd	Development, Advantages & Disadvantages
	3rd	square set stopping
	4th	Block caving (Application, preparation).
	5th	
From 26/09/22 to 01/10/22	1st	Sublevel caving (Application)
	2nd	Advantages & disadvantages, preparation sub-level caving.
	3rd	TOP Slicing (Application, preparation)
	4th	Advantages & disadvantages of TOP-slicing
	5th	

Theory Topics

WEEK	Class Day	Theory Topics
From 10/10/22 to 15/10/22	1st	Conventional methods of drifting
	2nd	Direction gradient of drift
	3rd	Drilling & Blasting (Description, methods)
	4th	Support of drifting
	5th	
From 17/10/22 to 22/10/22	1st	Transportation & drainage of drifting
	2nd	Ventilation and lighting arrangements.
	3rd	Organization & supervision in mechanised method of drifting.
	4th	Physico-mechanical properties of rocks.
	5th	
From 24/10/22 to 29/10/22	1st	Impact Strength Index, Protodyakonov Strength Index, Drill ability.
	2nd	Explain causes and prevention of rock burst.
	3rd	Prevention of rock burst, Factors affecting the rock dust.
	4th	Mechanical characteristics of rock dust burst.
	5th	

Discipline:		Semester:	Name of the Teaching Faculty:
Subject:		No of Days/Week Class Allotted: _____	Semester From date: _____ To date _____
			No. of Weeks: _____

WEEK	Class Day	Theory Topics
From 01/11/22 to 05/11/22	1st	Access to ore body (Introduction)
	2nd	Classification modes of entries (Adits), Inclines
	3rd	Shafts (Its description), applicability of entries.
	4th	Choice of mining method, Soft rock mining methods.
	5th	
From 07/11/22 to 12/11/22	1st	Hard rock mining method, Supported and unsupported UMM.
	2nd	Explain Formation of blocks of mineral deposits
	3rd	Explanation of Time interval
	4th	Description of raising methods in metal mines (open raising method)
	5th	
From 14/11/22 to 19/11/22	1st	Two Compartment method
	2nd	Topa raise lift
	3rd	Long hole drilling method
	4th	Alimak raise climber
	5th	

WEEK	Class Day	Theory Topics
From 21/11/22 to 26/11/22	1st	Advantages of Alimak raise climber
	2nd	Description of Raise borer
	3rd	Advantages of Raise borer
	4th	Development of ore passe system
	5th	
From 28/11/22 to 03/12/22	1st	Study of coal mining
	2nd	Study of metal mine
	3rd	Definition of Stopping method
	4th	Stopping methods with application and factors affecting methods of stopping.
	5th	
From 05/12/22 to 10/12/22	1st	Application of underground metal mining methods.
	2nd	Factors affecting methods of stopping
	3rd	Open stopping (description with layout including drilling, blasting & transportation.
	4th	Preparation, Development, Advantages & Disadvantages.
	5th	

Discipline:		Semester:	Name of the Teaching Faculty:	
Subject:		No of Days/Week Class Allotted: _____	Semester From date: _____ To date _____	No. of Weeks:

WEEK	Class Day	Theory Topics
From 12/12/22 to 17/12/22	1st	Introduction to Face mechanization
	2nd	Use of jumbo drill with air leg.
	3rd	Various loading & Transportation System.
	4th	LHD (load, haul, dump)
	5th	
From 19/12/22 to 22/12/22	1st	L.P.D.T (low profile Dump Truck)
	2nd	Rocker shovel (Description)
	3rd	Spiral chutes (Description)
	4th	Draw point & (Description)
	5th	
	1st	Scraper (Operation, Application)
	2nd	Advantages & Disadvantages
	3rd	
	4th	
	5th	