

Dicipline:	Mining	Semester:	4 th	Name of the Teaching Faculty	Dharmasish Behera
Subject:	UCM	No of Days/Week Class Allotted:		Semester From date:	10/03/2022 To date 18/06/2022
				No. of Weeks:	
WEEK	Class Day	Theory Topics			
From 14/3/22 to 19/3/22	1st	Introduction of underground coal mining.			
	2nd	Types of method using underground coal mining.			
	3rd	Introduction of board and pillar method.			
	4th	Describe the various application of board and pillar method.			
	5th				
From 20/3/22 to 26/3/22	1st	Describe the various layouts of board and pillar method.			
	2nd	Describe depillarng method with stowing and caving			
	3rd	_____ DO _____			
	4th	State precautions against fire after depillarng.			
	5th				
From 28 28/3/22 to 2/4/22	1st	State precautions against water during and after depillarng.			
	2nd	State and describe various machineries used in working face.			
	3rd	_____ DO _____			
	4th	Define Contiguous Seam.			
	5th				

WEEK	Class Day	Theory Topics
From 21/04/22 to 29/04/22	1st	Describe working of Contiguous seams.
	2nd	Describe working of seams above and below goaved out ore
	3rd	DO
	4th	State advantages and disadvantages of Bord and pillar method.
	5th	
From 01/04/22 to 16/04/22	1st	DO
	2nd	Introduction to longwall method
	3rd	Describe longwall advancing method.
	4th	Describe longwall retreating methods.
	5th	
From 15/04/22 to 23/04/22	1st	Define single unit face
	2nd	Define double unit face
	3rd	Describe cyclic L/W layouts.
	4th	Describe noncyclic L/W layouts.
	5th	

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WEEK	Class Day	Theory Topics
From 25/4/22 to 30/4/22	1st	Describe mechanized longwall working with armoured flexible conveyor.
	2nd	Describe mechanized longwall working with Shield support.
	3rd	Describe mechanized longwall working with Shearer loader.
	4th	Introduction to thick seam mining.
	5th	
	1st	Define thick seams.
	2nd	Classify Thick Seam mining.
	3rd	Describe layouts of horizontal slicing.
	4th	Describe layouts of incline slicing.
	5th	
	1st	Describe layouts of blasting gallery.
	2nd	Describe layouts of sublevel caving.
	3rd	Introduction to horizon mining.
	4th	State conditions, advantages, dis advantages and limitations of Horizon mining.
	5th	

WEEK | Class Day

WEEK	Class Day	Theory Topics
	1st	Describe the layout of Horizon mining.
	2nd	Introduction to hydrostatic and pneumatic stowing.
	3rd	Describe hydraulic and stowing
	4th	Describe pneumatic stowing
	5th	
	1st	Introduction to support and roof control in mines.
	2nd	State properties of various type of roof.
	3rd	Study of roof behavior
	4th	Pressure arch theory in longwall work working.
	5th	
	1st	Describe testing of roof.
	2nd	Classify support system in mines construction.
	3rd	Principle of operation application.
	4th	load bearing capacity assessment.
	5th	



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From (Date) : to : 20

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WEEK	Class Day	Theory Topics		
	1st	Subsidence due to mining and Define angle of draw.		
	2nd	State factors of Subsidence, Critical area of extraction.		
	3rd	Describe the factors affecting Subsidence.		
	4th	State and describe precautionary measures against damage due to Subsidence.		
	5th			
	1st	Define shaft pillar.		
	2nd	Describe vertical shaft and inclined shafts, determine shape and size of shaft.		
	3rd	Location of shaft, Describe sinking through normal ground; State shaft plumbing		
	4th	————— DO —————		
	5th			
	1st	Describe sinking through - difficult ground, cementation, - freezing		
	2nd	mechanized shaft sinking, sinking upWARD		
	3rd	Welding and deepening of shafts.		
	4th			
	5th			