

Discipline	Semester	Name of the Teaching Faculty
		Sidhanta Biswal
Subject	No. of Days	Semester
Underground	Per Week	From date:- 15/02/2023
Coal Mining	Class allotted	To date:- 23/05/2023
		No. of Weeks:- 15
Week	Class/Day	Theory - 1
1st	1st	Define Mine and different Methods of mining
	2nd	Classify Underground Coal mining Methods
	3rd	Describe the various application of Board & Pillar method.
	4th	Describe various layouts of Board & Pillar method
2nd	1st	Describe depillaring method with Stowing.
	2nd	Describe depillaring method with Stowing.
	3rd	State precautions against fire during and after depillaring.
	4th	State precautions against water during and after depillaring.
3rd	1st	State and describe various machineries used in working face.
	2nd	State and describe various machineries used in working face.
	3rd	State and describe various machineries used in working face.
	4th	Define Contiguous Seam. Describe working of Contiguous Seams.
4th	1st	Describe working of Seams above goaved out area.
	2nd	Describe working of Seams below goaved out area.
	3rd	Describe working of Seams below goaved out area.
	4th	State advantages and disadvantages of Board and Pillar method.
5th	1st	Describe longwall advancing methods.
	2nd	Describe longwall retreatary methods.

	3rd	Define Single Unit and double unit face.
	4th	Describe cyclic L/W layouts.
6th	1st	Describe non-cyclic L/W layouts.
		Describe mechanized longwall working with armored flexible conveyor.
	2nd	Shield Support and Shearer loader.
		Shield Support and Shearer loader.
	3rd	Describe mechanized longwall working with armored flexible conveyor.
	4th	Define Thick Seams.
7th	1st	Classify thick seam mining.
	2nd	Describe layouts of Horizontal slicing.
	3rd	Describe layouts of cyclone slicing.
	4th	Describe layouts blasting gallery.
8th	1st	Describe layouts sublevel caving.
	2nd	Describe layouts sublevel caving.
	3rd	State Conditions of Horizon mining.
	4th	State advantages, disadvantages of Horizon Mining.
9th	1st	State limitations of Horizon mining.
	2nd	Describe the layout of Horizon mining.
	3rd	Describe hydraulic stowing.
	4th	Describe Pneumatic stowing.
10th	1st	State properties of various types of roof and roof behavior.
	2nd	Describe Pressure arch theory in B&P.
	3rd	Describe Pressure arch theory in longwall working.
	4th	Describe testing of roof.
11th	1st	Classify Support System in Mines Construction.
	2nd	Classify Support System in Mines Construction.
	3rd	Describe principle of operation application of Support System.
	4th	Describe load bearing Capacity assessment of Support System.

12th		Define angle of draw, state factors of subsidence.
	2nd	Define angle of draw, state factors of subsidence.
	3rd	Define critical of extraction.
	4th	Describe the factors affecting subsidence.
13th	1st	State & Describe precautionary measures against damage due to subsidence.
	2nd	State & Describe precautionary measures against damage due to subsidence.
	3rd	Define shaft pillar, Describe vertical shaft.
	4th	Describe inclined shaft.
14th	1st.	Determine shape and size of shaft.
	2nd.	Determine location of shaft.
	3rd.	INTERNAL
	4th	Describe sinking through normal ground, state shaft plumbing.
15th	1st	Describe sinking through difficult ground.
	2nd	Describe cementation method.
	3rd.	Describe freezing method.
	4th	Explain mechanized shaft sinking. Sinking upward, widening and Deepening of shafts.
16th	1st	Explain sinking upward.
	2nd	shaft widening.
	3rd.	shaft deepening.
	4th	Previous year questions.

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