ARYAN SCHOOL OF ENGINEERING & TECHNOLOGY

Dicipline:	MINING	Semester: 6th	Name of the Teaching Faculty:	
Subject: MATERIAL HANDLING AND LOGISTICS (ELECTIVE)		No of Days/Week Class Allotted:_____	Semester From date:_____ To date_____	No.of Weeks:

WEEK	Class Day	Theory Topics
1	1st	Introduction to surface & underground haulage system
	2nd	Introduction to surface & underground haulage system
	3rd	Classification of underground haulage system
	4th	Classification of underground haulage system
	5th	
2	1st	Classification of opencast haulage system
	2nd	Classification of opencast haulage system
	3rd	Factors affecting design of a haulage system.
	4th	Factors affecting design of a haulage system.
	5th	
3	1st	Finding of the capacity of a haulage system in a given production.
	2nd	Finding of the capacity of a haulage system in a given production.
	3rd	Introduction to mechanised contineous haulage system(Conveyor belt)
	4th	Classification of Conveyors
	5th	

WEEK	Class Day	Theory Topics
4	1st	Factors affecting design of belt conveyor, cable belt conveyor and steel cord conveyors.
	2nd	Factors affecting design of belt conveyor, cable belt conveyor and steel cord conveyors.
	3rd	Finding of carrying capacity of belt conveyor, cable belt conveyor & steel cord conveyor.
	4th	Finding of carrying capacity of belt conveyor, cable belt conveyor & steel cord conveyor.
	5th	
5	1st	Description of constructional features of belt conveyor & cable belt conveyor.
	2nd	Calculation for drive capacity of belt conveyor & cable belt conveyor.
	3rd	Calculation for drive capacity of belt conveyor & cable belt conveyor.
	4th	Introduction to Locomotive haulage System.
	5th	
6	1st	Description to different types of locomotive haulage
	2nd	Description to different types of locomotive haulage
	3rd	Description to basic constructional features of trolley wire, compressed air.
	4th	Description to basic constructional features of diesel & battery locomotives.
	5th	

WEEK	Class Day	Theory Topics
7	1st	Applicability, merits & demerits of locomotives.
	2nd	Applicability, merits & demerits of locomotives.
	3rd	Description to safety devices of diesel locomotive including flame trap around exhaust conditioner box.
	4th	Description to safety devices of diesel locomotive including flame trap around exhaust conditioner box.
	5th	
8	1st	Solving of numerical problems.
	2nd	Solving of numerical problems.
	3rd	Introduction to Aerial ropeways
	4th	Classification of aerial ropeways.
	5th	
9	1st	Discussion of applicability of aerial ropeways.
	2nd	Description of constructional features of bicable and twin cable ropeways.
	3rd	Description of loading, unloading & angle stations bicable & thin cable ropeways.
	4th	Description of loading, unloading & angle stations bicable & thin cable ropeways.
	5th	

WEEK	Class Day	Theory Topics
10	1st	Introduction to Hydraulic transportation of solids.
	2nd	Defining of hydraulic transportation.
	3rd	Defining of hydraulic transportation.
	4th	Theory of hydraulic transportation of solids in mines (without derivation)
	5th	
11	1st	Theory of hydraulic transportation of solids in mines (without derivation)
	2nd	Designing of hydraulic transportation system
	3rd	Designing of hydraulic transportation system
	4th	Applicability, advantages & disadvantages of hydraulic transportation in Mines
	5th	
12	1st	Applicability, advantages & disadvantages of hydraulic transportation in Mines
	2nd	Introduction to Man riding haulage
	3rd	Explanation to different types of man riding system.
	4th	Explanation to different types of man riding system.
	5th	

WEEK	Class Day	Theory Topics
13	1st	Description of constructional features of monorail, deorail.
	2nd	Description of constructional features of flight chairs & conveyor system.
	3rd	Introduction to Spiral Chutes.
	4th	Explaining of capability of spiral chutes.
	5th	
14	1st	Explaining of working principle of spiral chutes.
	2nd	Explaining of working principle of spiral chutes.
	3rd	Description to constructional features of spiral chutes.
	4th	Introduction to Flow of materials in bins, bunkers
	5th	
15	1st	Introduction to Flow of materials in bins, bunkers
	2nd	Explaining of flow of materials in bins & bunkers.
	3rd	Designing of bunkers & bins for a given production.
	4th	Designing of bunkers & bins for a given production.
	5th	