GOVT. POLYTECHNIC MAYURBHANJ LESSON PLAN

Discipline :		Semester: 3rd Sem		Name of the Teaching Faculty : SOURAV ADHYA
Subject : FM - I		No. of Days / per week class allotted : 04		Semester From date : 15.09.2022 To Date : 21.01.2023
MONTH	Week	Day	Unit	Topics
SEPTEMBER	3rd	3rd	UNIT-1	**Raw Materials for iron Marking**
		1st		Different Raw Materials and their function
	4th	3rd		Deposits of iron ores flux and coal in india
		1st	UNIT-2	**Quality requirement of raw materials**
		2nd		Different types of iron ores
		1st		Composition and characteristics of raw materia
	5th	3rd		Evaluation of iron ores and Metallurgical Coal
		1st		Difference between coal and coke
		2nd		Required properties of coke for making iron
		1st		Flux and its types
OCTOBER	2nd			Durga Puja holiday
	3rd	3rd		Evaluation of Flux (available base & basicity)
		2nd	UINT-3	**Burden Preparation**
		2nd		Quality of burden (physical & chemical properties)
		1st		Different types of agglomeration required for burden preparation for blast furnace
	4th			
		3rd	UNIT-4	**Blast Furnace Fuel**
		2nd		Funcion of coke
		1st		Quality requirement of coke
	5th	2nd		Preparation of B.F fuel in India
				Diwali (holiday)
		1st		Auxiliary fuels
		2nd		Fuel Injection
	6th	3rd		Factors affecting fuel consumption in blast furnace
ER	1st	1st	UNIT-5	**Blast Furnace Operation**
		2nd		Charging methods and process of (Blowing in , Drying,Filing)
		3rd		Charging methods and process of (Blowing out ,Banking in,Blowing down)
	2nd	3rd		Charging methods and process of (Tapping,Fanning,Back draughting)
		2nd		Disposal of slags
				Rash purnima(holiday)
		3rd		Slags granulation & their utilization
		3rd	UNIT-6	**Blast furnace Accessories**
		1st		Blast furnace refractories, Stack lining, Hearth walls,Bosh lining.

NOVEMB	3rd	2nd		Blast furnace cooling arrangement, shift ,coolers, Hearth & bosh coolers, Tap hole driling machine, Cast house.									
		1st		chance process.									
	4th	2nd		Internal assesment									
		3rd		Internal assesment									
		2nd		Tuyeres assembly ,Raw materials section, Charge hosting appliances, Top Charging system									
		3rd		(Blowers, boilers, pumps) Gas cleaning plant, Blast furnace stoves									
	5th	2nd	UNIT-7	**Blast furnace irregularities and Remedies**									
		3rd		Hanging ,Scaffolding									
DECEMBER	1st	3rd		Slip, Chilled hearth, Pillaring ,Break out.									
		1st		Chocking of gas off take, Flooding and coke ejection through tap holes, Leaking tuyers tap holes and coolers.									
	2nd	3rd		Chocking of gas off take, Flooding and coke ejection through tap holes, Leaking tuyers tap holes and coolers.									
		1st		Channeling									
		1st	UNIT-8	**Chemistry of Blast Furnace operation**									
		2nd		CLASS TEST-1									
	3rd	1st		Blast furnace profile, (Thermal, physical and chemical profile), Physical chemistry of blast									
		2nd		furnace process									
		1st		Reaction in tuyere zone, Reaction in stack, Reaction in hearth, Reaction in bosh.									
		3rd		Efficiency of B.F .Process,									
	4th	2nd		Direct & indirect reduction									
		3rd		Direct & indirect reduction									
		1st		Silicon & sulphur reaction									
JANUARY	1st	2nd		Revision on unit 1-5									
		3rd		Revision on unit 1-5									
		4th		Revision on unit 1-5									
	2nd	3rd		Revision on unit 6-10									
		4th		Revision on unit 6-10									
		2nd		Revision on unit 6-10									
	3rd	3rd		Previous year question discussion									
		4th		Previous year question discussion									
		2nd		Previous year question discussion									
	4th	3rd		Previous year question discussion									
		4th		Previous year question discussion									
		2nd		Previous year question discussion									