DISCIPLINE - METALLURGICAL ENGINEERING		LESSON PLAN SEMESTER - 5th semester		NAME OF THE TEACHING FACULTY- BICHITRA KUMAR SAHOO
SUBJECT - FERROUS METALLURGY II		NO OF DAYS/ WEEK CLASS ALLOTED-04		SEMESTER FROM DATE: - 01-08-23 TO 30-11-23
MONTH	WEEK	NO.OF PERIODS AVAILABLE	CLASS DAY	THEORY TOPIC
AUGUST	1st	02P	07-08-23	1.1 Introduction and History of steel making
			08-08-23	1.2 Blister steel making Routes of steel making
	2nd	04P	10-08-23	1.3 shear steel making
			11-08-23	1.4 Describe crucible steel making
			14-08-23	1.5 describe open hearth furnace
			17-08-23	2.1 Mention different reaction involved in steel making
	3rd	04P	18-08-23	2.2 Differentiate between acid process & basic process of steel making
			21-08-23	2.3 Explain the principles and conditions required in removal of P, S, Si in steel making
			22-08-23	2.3 Explain the principles and conditions required in removal of P, S, Si in steel making
			24-08-23	3.1 State the different raw materials required for steel making
SEPTEMBER	4th	04P	25-08-23	3.2 State the important raw materials available in India
			28-08-23	Revision
			29-08-23	4.1 Give different raw materials of LD process
			31-08-23	4.2 Explain the construction and operation of LD converter
	5th	04P	01-09-23	4.3 Describe the refining reaction in LD converter with reference to decarburization and dephosphorisation
			04-09-23	4.4 Mention the quality of steel and composition of slag in LD process
			05-09-23	4.6 Describe top blowing process KALDO AND ROTOR PROCESS
			07-09-23	4.6 Describe bottom blowing process OBM, LWS PROCESS

	6th	04P	08-09-23	4.6 Explain combined blowing process LD-KG, LDAC process
			11-09-23	4.7 explain OLP process
			12-09-23	5.1 Explain the principles and construction of electric arc furnace
			14-09-23	5.2 Explain the operationalsteps and types of slag prepared by electric arc furnace
OCTOBER	7th	04P	15-09-23	5.3 Mention advantages of EAF process
			18-09-23	5.4 Explain the steel making induction furnace
			21-09-23	5.5 Explain advantages andlimitations of induction furnace
			22-09-23	6.1 describe the principle of operation, merits arid demerits of Ajax Process
	8th	04P	25-09-23	6.1 describe the principle ofoperation, merits arid demerits of spray steel making
			26-09-23	7.1 Deoxidation of liquid steel; deoxidation practice
			28-09-23	7.1 Different de-oxidizers and their uses
			03-10-23	7.2 Differentiate between killed steel, semi-killed steel and rimming steel
	9th	04P	05-10-23	8.1 Describe different typesof teeming methods; direct pouring Tundish teeming and Bottom teeming and Bottom teeming.
			06-10-23	8.2 Ingot moulds: Mould material, hot top, bottomplate, Mould life, Mould preparation
			09-10-23	CLASS TEST
			10-10-23	
	10th	04P	13-10-23	9.1Explain the principle and operation of continuouscasting
			16-10-23	9.2 Describe different types of casters vertical caster
			17-10-23	9.3 Continuous casting of Billets, Blooms and Slabs

				moulds and mould maintenance in continuous casting
NOVEMBER	11th	04P	20-10-23	9.5 Discuss advantages of continuous casting
			31-10-23	9.6 Continuous casting of Billets, Blooms and Slabs.
			02-11-23	Doubt clear class
			03-11-23	9.7Explain the principle and operation of continuous casting
	12th	04P	06-11-23	10.1 objective of Secondary steel making
			07-11-23	10.2 Describe advantages of secondary steel making
			09-11-23	10.3 Explain the principle operation and advantages of secondary steel making VAD
			10-11-23	10.4 Describe different ingotdefects, their causes and remedies
	13th	04P	13-11-23	10.5 Describe AOD process
			14-11-23	10.6 Describe VOD process
			16-11-23	11.1 Describe stream degassing process
			17-11-23	11.2 Describe circulation degassing
	14th	04P	20-11-23	11.3 Describe different ingot defects, their causes and remedies
			21-11-23	11.4 Describe stream degassing process
			23-11-23	Doubt clearing Class
			24-11-23	
	15th	02P	28-11-23	Revisions
			30-11-23	

B. Sahoo

PREPARED BY
BICHITRA KUMAR SAHOO

11/08/2023

HOD
METALLURGY
ENGINEERING
OSME, KEONJHAR

11-8-23

PRINCIPAL
OSME , KEONJHAR