

LESSON PLAN 2025(W)

SUBJECT:- FERROUS METALLURGY - II

SUBJECT CODE:- TH-4

SEMESTER:-5th

BRANCH:-METALLURGICAL

NAME OF FACULTY:- SAGARIKA PALEI

CLASS ALLOTTED:-4P/WEEK

WEEKS	DATE	DATE :- FROM- 14/07/2025 TO 15/11/2025	TEACHING AID
		THEORY- TOPIC/LESSON	
1	15/07/2025 TO 19/07/2025	Steel Making Processes Brief history of principles of steel making & processes of steel making. Bistre steel making Shear steel making	White board & Marker
2	21/07/2025 TO 26/07/2025	Crucible steel making Bessemer steel making Open hearth steel making	White board & Marker
3	28/07/2025 TO 02/08/2025	Explain these processes with suitable sketches Principles of steel making. Mention different reactions involved in steel making.	White board & Marker
4	04/08/2025 TO 09/08/2025	Differentiate between acid process & basic process of steel making. Explain the principles and conditions required in removal of „P“, „S“, Si“, „Mn“ and „C“ in steel making.	White board & Marker
5	11/08/2025 TO 16/08/2025	Raw Materials for Steel Making List the different raw materials required for steel making State the important raw materials available in India	White board & Marker
6	18/08/2025 TO 23/08/2025	Steel Making by LD Converter Give different raw materials of LD process Explain the construction and operation of LD converter	White board & Marker
7	25/08/2025 TO 30/08/2025	Describe the refining reaction in LD converter with reference to decarburization and dephosphorisation. Mention the quality of steel and composition of slag in LD process Give the advantages and limitations of LD process.	White board & Marker
8	01/09/2025 TO 06/09/2025	Describe different developments of LD process a. Bottom, top and combined blowing b. Multi nozzle converter. Explain OLP process	White board & Marker
9	08/09/2025 TO 13/09/2025	Electric and Induction Furnace Process Explain the principle, types of slags prepared by electric arc furnace Explain the steps of electric arc furnace heating to produce steel Mention advantages of electric arc furnace process.	White board & Marker
10	15/09/2025 TO 20/09/2025	Explain the steel making induction furnace. Mention advantages and limitations of induction furnace process Brief Study of Other Recent Processes of Steel Making. .1 Briefly describe the principle of operation, merits and demerits of the recent steel making processes such as a. Ajax Process b. OBM Process	White board & Marker

	22/09/2025 TO 27/09/2025	c. Spray Steel Making Process De-Oxidation Practice Explain different De-Oxidisers and their use. Differentiate between killed steel semi killed steel and rimming steel	White board & Marker
12	08/10/2025 TO 11/10/2025	Pit Side Practice Describe different teeming methods such as: a. Direct pouring b. Tundish teeming and Bottom teeming different ingot defects, their causes and remedies	White board & Marker
13	13/10/2025 TO 18/10/2025	Continuous Casting of Steel Explain the principle and operation of continuous casting Describe different types of casters.	White board & Marker
14	20/10/2025 TO 25/10/2025	Describe about the moulds and mould maintenance in continuous casting. advantages of continuous casting Continuous casting of Billets Blooms and Slabs	White board & Marker
15	27/10/2025 TO 01/11/2025	Secondary Steel Making Processes Explain the principle operation and advantages of secondary steel making processes such	White board & Marker
16	03/11/2025 TO 08/11/2025	a. VAD Process b. VOD Process c. AOD Process Describe the stream degassing process	White board & Marker
17	10/11/2025 TO 15/11/2025	Revision.....	White board & Marker


Signature of HOD


Signature of Faculty