Lesson Plan

Subject : Elective: (Corrosion Engg.) (TH-4) Name of faculty:

Semester: 6th Class allotted:4p/week Branch: Metallurgy Session: 2025(S)

Discipline	Semester	From date: To date:	Teaching Aid
Subject:	No. of days/ per week	Theory/ Practical –Topics/Lesson	
Week	Date/Period		
1	04/02/2025 TO 08/02/2025	**Introduction to Corrosion** Define corrosion . Explain cost of corrosion, direct and indirect losses.	White Board Marker Smart board
2	10/02/2025 TO 15/02/2025	State the importance of corrosion studies . Classify different types of corrosion .	White Board Marker Smart board
3	17/02/2025 TO 22/02/2025	Differentiate between electrochemical corrosion and chemical corrosion State the corrosion rate	White Board Marker Smart board
4	24/02/2025 TO 01/03/2025	**Corrosion principles:** Explain the electrochemical principle of corrosion . State the Faraday's law and its causes and its deviation..	White Board Marker Smart board
5	03/03/2025 TO 08/03/2025	**Types of electrochemical cells** Discuss in details galvanic cell, concentration cell and electrolytic cell	White Board Marker Smart board
6	10/03/2025 TO 15/03/2025	**Electrode potential:** State its significance without experimental measurement..	White Board Marker Smart board

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7	17/03/2025 TO 22/03/2025	. Discuss in details electromotive force and galvanic series and their application with reference to corrosion and protection	White Board Marker Smart board
8	24/03/2025 TO 29/03/2025	**Different forms of corrosion:** Explain in details about factors affecting mechanism and prevention of following corrosion: i. Atmospheric corrosion	White Board Marker Smart board
9	31/03/2025 TO 05/04/2025	ii. Intergranular corrosion . iii. Pitting corrosion	White Board Marker Smart board
10	07/04/2025 TO 12/04/2025	iv. Corrosion fatigue v. Galvanic corrosion	Marker White Board Smart board
11	14/04/2025 TO 19/04/2025	vi. Stress corrosion/cracking vii. Cavitation corrosion.. viii. Fretting corrosion	White Board Marker Smart board
12	21/04/2025 TO 26/04/2025	. ix. High temperature oxidation corrosion x. Stray current corrosion	Marker White Board Smart board
13	28/04/2025 TO 03/05/2025	**Corrosion Prevention** Study the physical, mechanical and chemical characteristic of protective coating. Explain corrosion prevention by inhibition and	White Board Marker Smart board
14	05/05/2025 TO 10/05/2025	passivation by control of environment (without kinetics). Discuss the cathodic and anodic protection	White Board Marker Smart board
15	12/05/2025 TO 17/05/2025	Revision.....	White Board Marker Smart board

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