LESSON PLAN				
Discipline: **Metallurgical Engineering**			Semester: **6th Semester**	Name of the Teaching Faculty: **Ms. Sitanjali Khuntia**
Subject: **Corrosion Engineering** Sub code: **(Th-3)**			No of days /week class allotted:**04**	Semester from Date: 22.12.2025 to 18.04.2026 No of weeks:
Month	*week*	*No of periods available*	*Class Day*	*Theory topics*
Dec	4th	02	23-12-2026	Introduction to Corrosion: Define corrosion, Explain cost of corrosion, direct and indirect losses
			24-12-2026	Explain cost of corrosion, direct and indirect losses
	5th	02	30-12-2026	State the importance of corrosion studies
			31-12-2026	Classify different types of corrosion
Jan	1st	02	01-01-2026	Differentiate between electrochemical corrosion and chemical corrosion
			03-01-2026	State the corrosion rate
	2nd	03	06-01-2026	Problems on corrosion rate
			07-01-2026	Pilling Bed worth ratio
			08-01-2026	Pilling Bed worth ratio
	3rd	02	15-01-2026	Explain the electrochemical principle of corrosion
			17-01-2026	State the Faraday's law and its causes and its deviation
	4th	03	20-01-2026	State the Faraday's law and its causes and its deviation
			21-01-2026	Quiz test
			22-01-2026	Types of electrochemical cells: details galvanic cell, concentration cell and electrolytic cell
	5th	04	27-01-2026	details galvanic cell, concentration cell and electrolytic cell
			28-01-2026	State its significance without experimental measurement.
			29-01-2026	**Class test**
			31-01-2026	Discuss in details electromotive force and galvanic series and their application with reference to corrosion and protection.
Feb	1st	04	03-02-2026	Discuss in details electromotive force and galvanic series and their application with reference to corrosion and protection.
			04-02-2026	Different forms of corrosion: Atmospheric corrosion
			05-02-2026	Atmospheric corrosion
			07-02-2026	Intergranular corrosion
	2nd	03	10-02-2026	Types of Intergranular corrosion
			11-02-2026	Mechanism of different intergranular corrosion
			12-02-2026	Prevention of intergranular corrosion
	3rd	04	17-02-2026	Prevention of intergranular corrosion
			18-02-2026	Internal assessment
			19-02-2026	Internal assessment
			21-02-2026	Pitting corrosion
	4th	03	24-02-2026	Types of Pitting corrosion
			25-02-2026	Mechanism of different Pitting corrosion
			26-02-2026	Prevention of Pitting corrosion
Mar	1st	02	05-03-2026	Corrosion fatigue
			07-03-2026	Types, mechanism & prevention of Corrosion fatigue
	2nd	03	10-03-2026	Galvanic corrosion
			11-03-2026	Types, mechanism & prevention of Galvanic corrosion
			12-03-2026	Prevention of Galvanic corrosion Galvanic corrosion
	3rd	03	17-03-2026	Quiz test
			18-03-2026	Stress corrosion/cracking
			19-03-2026	Cavitation corrosion

	4th	02	24-03-2026	Fretting corrosion
			25-03-2026	High temperature oxidation corrosion
			26-03-2026	Stray current corrosion
	5th	01	31-03-2026	Class test
April	1st	02	02-04-2026	Corrosion Prevention: Study the physical, mechanical and chemical characteristic of protective coating
			04-04-2026	Study the physical, mechanical and chemical characteristic of protective coating
	2nd	03	07-04-2026	Explain corrosion prevention by inhibition and passivation by control of environment
			08-04-2026	Discuss the cathodic and anodic protection
			09-04-2026	Discuss the cathodic and anodic protection
	3rd	03	15-04-2026	Difference between cathodic and anodic protection
			16-04-2026	Doubt Clearing
			18-04-2026	Doubt Clearing

22.12.25

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