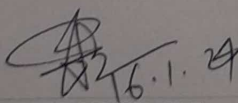
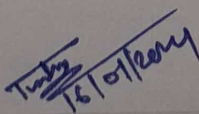



## LESSON PLAN

Discipline: <b>Metallurgy Engineering</b>			Semester: <b>4<sup>th</sup> semester</b>	Name of the Teaching Faculty: <b>Mr Subrat Kumar Behera , Lecturer</b>
Subject: <b>Principles of Extractive Metallurgy</b> Sub code: <b>Th.3</b>			No of days /week class allotted: <b>04/week</b>	Semester from Date: <b>16-01-24 to 26-04-24</b> No of weeks: <b>14</b>
<b>Month</b>	<b>Week</b>	<b>No of periods available</b>	<b>Class Day</b>	<b>Theory topics to be covered</b>
JANUARY	1 <sup>st</sup>	03 P	16-01-2024	Briefing about the Syllabus
			17-01-2024	Explain different agglomeration process
			20-01-2024	Explain drying Define and explain calcination
	2 <sup>nd</sup>	03P	22-01-2024	Explain different agglomeration process
			24-01-2024	Pyrometallurgical processes
			27-01-2024	Pyrometallurgical processes
	3 <sup>rd</sup>	02P	29-01-2024	Pyrometallurgical processes
			30-01-2024	Explain roasting and different roasting methods
	FEBRUARY	4 <sup>th</sup>	03P	03-02-2024
05-02-2024				Explain smelting and different smelting practices
06-02-2024				Explain the method of distillation and sublimation
5 <sup>th</sup>		02P	07-02-2024	Explain hydrometallurgical process
			12-02-2024	Flow diagram of hydrometallurgical extraction
6 <sup>th</sup>		04P	13-02-2024	Explain leaching and different leaching methods
			17-02-2024	Electrometallurgical process
			19-02-2024	Electrometallurgical process
			20-02-2024	Electrometallurgical process
7 <sup>th</sup>		04P	21-02-2024	Define electrolysis, ionic conductivity, EMF series, faraday's law of electrolysis
			26-02-2024	Define electrolysis, ionic conductivity, EMF series, faraday's law of electrolysis
			27-02-2024	Revision
			28-02-2024	Monthly Test
MARCH	8 <sup>th</sup>	03P	02-03-2024	Explain electro wining, electro refining
			04-03-2024	Explain refining, process
			06-03-2024	Explain refining, process
	9 <sup>th</sup>	04P	11-03-2024	zone refining, fire refining
			12-03-2024	Explain principles of metallurgical thermodynamics

			13-03-2024	Revision
			16-03-2024	Explain principles of metallurgical thermodynamics
	10 <sup>th</sup>	03P	18-03-2024	Explain principles of metallurgical thermodynamics
			19-03-2024	Monthly Test
			20-03-2024	zeroth law of thermodynamics
	11 <sup>th</sup>	02P	27-03-2024	Revision
			30-03-2024	Internal Assessment
	12 <sup>th</sup>	04P	02-04-2024	1st, 2nd, and 3rd law of thermodynamics
			03-04-2024	1st, 2nd, and 3rd law of thermodynamics
			06-04-2024	Explain on details the concept of Internal Energy, enthalpy, entropy and entropy change, Free energy of a chemical reaction
			08-04-2024	Explain on details the concept of Internal Energy, enthalpy, entropy and entropy change, Free energy of a chemical reaction
APRIL	13 <sup>th</sup>	04P	09-04-2024	Explain on details the concept of Internal Energy, enthalpy, entropy and entropy change, Free energy of a chemical reaction
			10-04-2024	Explain principles of metallurgical thermodynamics
			15-04-2024	zeroth law of thermodynamics
			16-04-2024	1st, 2nd, and 3rd law of thermodynamics
	14 <sup>th</sup>	04P	20-04-2024	Henry's law and Siver't's Law
			22-04-2024	Explain first order reaction and its significance
			23-04-2024	Monthly Test
			24-04-2024	Revision & Doubt Clear Class

  
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