LESSON PLAN- WINTER 2023 SWAMI VIVEKANANDA SCHOOL OF ENGINEERING & TECHNOLOGY, BBSR		
DISCIPLINE- MECHANICAL	**SEMESTER- 3RD**	**NAME OF THE FACULTY: Er. A. Parida**
SUBJECT- ENGINEERING MATERIALS	**NO. OF CLASS ALLOTED/ PER WEEK-5**	**SEM. From date: 01.08.2023 to 30.11.2023** **No. of weeks: 19th**
WEEK	**CLASS DAY**	**THEORY TOPIC**
1ST	2.08.2023	Engineering material and their properties
	3.08.2023	Material classification into ferrous and non ferrous category and alloys
	4.08.2023	Properties os Materials: Physical, Chemical and Mechanical
	7.08.2023	Performance requirments
	8.08.2023	Material reliability and safety
2ND	9.08.2023	DO
	10.08.2023	Ferrous Materials and alloys
	11.08.2023	Characteristics and applicationb of ferrous materials
	14.08.2023	Classification, composition and application of low carbon steel, medium carbopn steel and high carbon steel
3RD	15.08.2023	Alloy steel:Low.alloy steel, high alloy steel, tool steel and stainless steel
	16.08.2023	Tool steel: Effect of various alloying elements such as Cr, Mn, Ni, V, Mo
	17.08.2023	DO
4TH	18.08.2023	**Revision Class**
	19.08.2023	Iron- Carbon system
	21.08.2023	Concept of phase diagram and cooling curves
	22.08.2023	Features of Iron - Cabon diagram
5TH	24.08.2023	Features of Iron - Cabon diagram
	25.08.2023	Features of Iron - Cabon diagram
	26.08.2023	Crystal imperfection, Crystal defines, classification of crystals, ideal crystal and crystal imperfection
6TH	29.08.2023	Classification of imperfection: Point defects, line defects, surface defects and volume defects
7TH	1.09.2023	Types and cause of point defects: Vacacies, Interstitials and impurities
	2.09.2023	Types and cause of line defects: Edge dislocation and screw dislocation
	4.09.2023	Effect of imperfection on material properties
	5.09.2023	Deformation of by slip and twinning,Effect of deformation on material properties
8TH	08.09.2023	DO
	12.09.2023	**Monthly Test**
	13.09.2023	Heat Treatment, Purpose of Heat Treatment
	14.09.2023	Process of heat treatment: Annealing, normalizing, hardening
	15.09.2023	tampering, stress relieving measures
9TH	18.09.2023	Surface Hardening: Carburizing and Nitriding
	21.09.2023	Effect of heat treatment on properties of steel
	22.09.2023	Hardenability of steel
	23.09.2023	DO
	21.09.2023	DO
	25.09.2023	Non -ferrous alloys

10TH	29.09.2023	Aluminum alloys: Compoosition, property and ueage of Duralmin y- alloy
11TH	3.10.2023	Copper alloys: Composition, property and usage of Copper Aluminum,
	5.10.2023	Copper-Tin, Babbit, phosperous bronze, brass, Copper- Nickel
12TH	9.10.2023	Perdominating elements of lead alloys, Zinc alloys and Nickel alloys
	11.10.2023	**Internal Accessment**
	13.10.2023	High alloy materials like stainless, steel grades of duplex, super duplex materials etc.
13TH	17.10.2023	Structure of crystalline solids (Revise)
	19.10.2023	Imperfections in solids
14TH	28.10.2023	Phase diagrams
15TH	3.11.2023	Phase transformations
16TH	6.11.2023	Metal Alloys
	8.11.2023	Structure and properties of ceramics
	10.11.2023	Structure and properties of ceramics
17TH	14.11.2023	Applications and processing of ceramics
	16.11.2023	Engineering Materials
	18.11.2023	Engineering Material properties
18TH	22.11.2023	Electronic properties of Engineering materials
	24.11.2023	Processing of micro and nanoscale materials
	25.11.2023	Properties of ferrous materials
19TH	27.11.2023	properties of non ferroous materials
	29.11.2023	Hypoeuctectoid and hypereutectoid steels
	30.11.2023	Hypoeuctectoid and hypereutectoid steels
HOD SIGN.		PRINCIPAL SIGN.

H.O.D
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