

LESSON PLAN- WINTER 2022
SWAMI VIVEKANANDA SCHOOL OF ENGINEERING & TECHNOLOGY, BBSR

DISCIPLINE-MECH	SEMESTER-3RD	NAME OF THE FACULTY:Mr. A. K.PANDA
SUBJECT-ENGINEERING MATERIALS	NO. OF CLASS ALLOTTED/	SEM. From date:15.9.2022 to 22.12.2022 No. of weeks:15TH
WEEK	CLASS DAY	THEORY TOPIC
1ST	16.09.2022	Engineering material and their properties
	17.09.2022	Material classification into ferrous and non ferrous category and alloys
2ND	19.09.2022	Properties os Materials: Physical, Chemical and Mechanical
	21.09.2022	Performance requirments
	23.09.2022	Material reliability and safety
3RD	26.09.2022	DO
	28.09.2022	Ferrous Materials and alloys
	30.09.2022	Characteristics and applicationb of ferrous materials
4TH	1.10.2022	Classification, composition and application of low carbon steel, medium carbopn steel and high carbon steel
	8.10.2022	Alloy steel:Low alloy steel, high alloy steel, tool steel and stainless steel
5TH	10.10.2022	Tool steel: Effect of various alloying elements such as Cr, Mn, Ni, V, Mo
	12.10.2022	DO
	15.10.2022	ASSIGNMENT
6TH	17.10.2022	Iron- Carbon system
	19.10.2022	Concept of phase diagram and cooling curves
	21.10.2022	Features of Iron - Cabon diagram with salients micro- constituents of Iron and Steel
7TH	22.10.2022	DO
	24.10.2022	DO
8TH	26.10.2022	Crystal imperfection, Crystal defines, classification of crystals, ideal crystal and crystal imperfection
	27.10.2022	Classification of imperfection: Point defects, line defects, surface defects and volume defects
	28.10.2022	Types and cause of point defects: Vacacies, Interstitials and impurities
9TH	4.11.2022	Types and cause of line defects: Edge dislocation and screw dislocation
	5.11.2022	Effect of imperfection on material properties
10TH	8.11.2022	Deformation of by slip and twinning,Effect of deformation on material properties
	9.11.2022	DO
11TH	18.11.2022	DO
	19.11.2022	Heat Treatment, Purpose of Heat Treatment
	21.11.2022	Process of heat treatment: Annealing, normalizing, hardening
12TH	25.11.2022	tampering, stress relieving measures
	28.11.2022	Surface Hardening: Carburizing and Nitriding
	3.12.2022	Effect of heat treatment on properties of steel
13TH	5.12.2022	Hardenability of steel
	7.12.2022	DO
	10.12.2022	DO
14TH	12.12.2022	Non -ferrous alloys
	14.12.2022	Aluminum alloys: Composition, property and ueage of Duralmin y- alloy
	15.12.2022	Copper alloys: Composition, property and usage of Copper Aluminum,
15TH	17.12.2022	Copper-Tin, Babbitt, phosperous bronze, brass, Copper- Nickel
	19.12.2022	Perdominating elements of lead alloys, Zinc alloys and Nickel alloys
	20.12.2022	Low alloy materials like p-91, p-22 for power plants and other high temperature services.
	22.12.2022	High alloy materials like stainless, steel grades of duplex, super duplex materials etc.

HOD SIGN.

PRINCIPAL SIGN.