

LESSON PLAN (WINTER-2024) EEM

Discipline: Electrical		Semester:3rd Sem	Name of the Teaching Faculty: Mrs. Jayashree Mohanty (5r. 1ect. Electrical Engg)
Subject: Electrical Engineering Material	Date	Theory Period : 4P/Week	Semester From Date:-01.07.24 to Date:- 08.11.24 No. of Weeks:18
1st Week	02.07.24	1st	Conducting Materials Introduction
	03.07.24	2nd	Resistivity, factors affecting resistivity
	04.07.24	3rd	Classification of conducting materials into low-resistivity and high resistivity materials
	05.07.24	4th	Low Resistivity Materials and their Applications. (Copper, Silver, Gold, Aluminum, Steel)
2nd Week	09.07.24	1st	Stranded conductors,Bundled conductors
	10.07.24	2nd	Low resistivity copper alloys
	11.07.24	3rd	High Resistivity Materials
	12.07.24	4th	Their Applications(Tungsten, Carbon, Platinum, Mercury)
3rd Week	16.07.24	1st	Superconductivity,Superconducting materials
	18.07.24	2nd	Application of superconductor materials
	19.07.24	3rd	Semiconducting Materials Introduction
4th Week	23.07.24	1st	Semiconductors
	24.07.24	2nd	Electron Energy and Energy Band Theory
	25.07.24	3rd	Excitation of Atoms
	26.07.24	4th	Insulators, Semiconductors and Conductors
5th Week	30.07.24	1st	Semiconductor Materials
	31.07.24	2nd	Covalent Bonds
	01.08.24	3rd	Intrinsic Semiconductors,Extrinsic Semiconductors
	02.08.24	4th	CLASS TEST/ASSIGNMENT/QUIZ
6th Week	06.08.24	1st	N-Type Materials,P-Type Materials
	07.08.24	2nd	Minority and Majority Carriers
	08.08.24	3rd	Semi-Conductor Materials
	09.08.24	4th	Applications of Semiconductor materials,Rectifiers,Temperature-sensitive resistors or thermistors
7th Week	13.08.24	1st	Photoconductive cells,Photovoltaic cells
	14.08.24	2nd	Varistors,Transistors
	16.08.24	3rd	Hall effect generators,Solar power
8th Week	20.08.24	1st	Insulating Materials Introduction
	21.08.24	2nd	General properties of Insulating Materials,Electrical properties,Visual properties,Mechanical properties
	22.08.24	3rd	Thermal properties,Chemical properties,Ageing
	23.08.24	4th	Insulating Materials — Classification, properties, applications,Introduction
9th Week	27.08.24	1st	Classification of Insulating materials on the basis physical and chemical
	28.08.24	2nd	Insulating Gases,Introduction
	29.08.24	3rd	Commonly used insulating gases
	30.08.24	4th	Dielectric Materials,Introduction
10th Week	03.09.24	1st	Dielectric Constant of Permittivity
	04.09.24	2nd	Polarization,Dielectric Loss

			Electric Conductivity of Dielectrics and their Break Down
11th Week	05.09.24	3rd	Properties of Dielectrics
	06.09.24	4th	Applications of Dielectrics
	10.09.24	1st	Magnetic Materials Introduction
	11.09.24	2nd	Classification of Diamagnetism, Para magnetism and Ferromagnetism
	12.09.24	3rd	Magnetization Curve and Hysteresis
	13.09.24	4th	Eddy Currents, Curie Point, Magnetostriction
12th Week	17.09.24	1st	Soft and Hard magnetic Materials (i) Soft magnetic materials (ii) Hard magnetic materials
	18.09.24	2nd	Materials for Special Purposes Introduction
	19.09.24	3rd	CLASS TEST/ASSIGNMENT/QUIZ
	20.09.24	4th	Structural Materials
13th Week	24.09.24	1st	Protective Materials, Lead
	25.09.24	2nd	Steel tapes, wires and strips
	26.09.24	3rd	Other Materials, Thermocouple materials
	27.09.24	4th	Bimetals
14th Week	01.10.24	1st	Soldering Materials
	03.10.24	2nd	Fuse and Fuse materials
	04.10.24	3rd	Dehydrating material.
15th Week	15.10.24	1st	Tutorial
	17.10.24	2nd	Tutorial
	18.10.24	3rd	Tutorial
16th Week	22.10.24	1st	Tutorial
	23.10.24	2nd	Tutorial
	24.10.24	3rd	Tutorial
	25.10.24	4th	QUIZ :
17th Week	29.10.24	1st	Tutorial
	30.10.24	2nd	Tutorial
	01.11.24	3rd	Tutorial
18th Week	05.11.24	1st	Tutorial
	06.11.24	2nd	Tutorial
	07.11.24	3rd	Tutorial
	08.11.24	4th	Tutorial