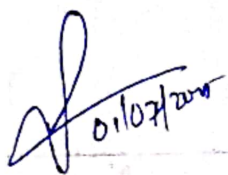


Lesson Plan of Electrical Engineering Material

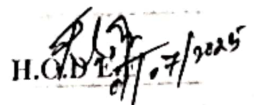
Discipline:- Electrical	Semester:- 3rd	Name Of The Teaching Faculty:- SOURABH NANDA
Subject:- Electrical Engineering Material	No Of Days Per week Class Allotted:-4	No Of Weeks:-15 DATE-01-07-2024 TO 16-12-2024
No. of week	No. of class	Topic to be taught
1 st	1	Conducting Materials: Introduction of Conducting Material
	2	Resistivity, factors affecting resistivity
	3	Classification of conducting materials into low-resistivity and high resistivity materials
	4	Low Resistivity Materials and their Applications. (Copper, Silver, Gold, Aluminum, Steel)
2 nd	5	Stranded conductors, Bundled conductors
	6	Low resistivity copper alloys
	7	High Resistivity Materials and their Applications (Tungsten, Carbon, Platinum, Mercury)
	8	Superconductivity, Superconducting materials, Application of superconductor materials
3 rd	9	Semiconducting Materials: Introduction of Semiconducting Materials, Semiconductors
	10	Electron Energy and Energy Band Theory, Excitation of Atoms
	11	Insulators, Semiconductors and Conductors
	12	Semiconductor Materials, Covalent Bonds
4 th	13	Intrinsic Semiconductors, Extrinsic Semiconductors
	14	N-Type Materials, P-Type Materials
	15	Minority and Majority Carriers, Semi-Conductor Materials
	16	Applications of Semiconductor materials: Rectifiers
5 th	17	Temperature-sensitive resistors or thermistors, Photoconductive cells
	18	Photovoltaic cells, Varistors, Transistors
	19	Hall effect generators, Solar power
	20	Insulating Materials: Introduction
6 th	21	General properties of Insulating Materials: Electrical properties
	22	Visual properties
	23	Mechanical properties
	24	Thermal properties
7 th	25	Chemical properties
	26	Ageing
	27	Insulating Materials – Classification, properties, applications: Introduction
	28	Classification of insulating materials on the basis physical and chemical structure

Lesson Plan of Electrical Engineering Material

8 th	29	Insulating Gases: Introduction.
	30	Commonly used insulating gases
	31	Doubt Clearing Class
	32	Doubt Clearing Class
9 th	33	Dielectric Materials: Introduction
	34	Dielectric Constant of Permittivity
	35	Polarization
	36	Dielectric Loss
10 th	37	Electric Conductivity of Dielectrics and their Break Down
	38	Properties of Dielectrics.
	39	Applications of Dielectrics.
	40	Magnetic Materials: Introduction
11 th	41	Classification: Diamagnetism, ,
	42	Para magnetism
	43	Ferromagnetism
	44	Magnetization Curve
12 th	45	Hysteresis
	46	Eddy Currents
	47	Curie Point
	48	Magneto-striction
13 th	49	Soft and Hard magnetic Materials: Soft magnetic materials
	50	Hard magnetic materials
	51	Materials for Special Purposes: Introduction
	52	Structural Materials
14 th	53	Protective Materials: Lead, Steel tapes, wires and strips
	54	Other Materials: Thermocouple materials
	55	Bimetals
	56	Soldering Materials
15 th	57	Fuse and Fuse materials.
	58	Dehydrating material.
	59	Revision
	60	Revision



Teaching Faculty


H.O.D.