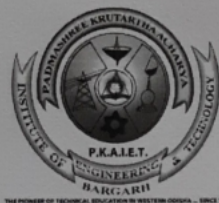


PADMASHREE KRUTARTHA ACHARYA INSTITUTE OF
ENGINEERING & TECHNOLOGY, BARGARH



LESSON PLAN
Session-2022-2023

Discipline: Electrical Engg. Semester: Third

Name of the Teaching Faculty: Subesh Chandra Nayak

Subject: Electrical Engineering Material.

Subject: Electrical Engg. Material No. of Days/per week class allotted 4

Semester From Date : 15.09.2022 To Date : 22.12.2022 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
1	1	Introduction of Conducting Materials
	2	Resistivity, Conductivity
	3	factors affecting resistivity. Discussion about various Conducting materials
	4	Classification of Conducting Materials
2	5	low resistivity materials
	6	high resistivity materials
	7	Properties and Application of low resistivity materials
	8	Properties and Application of low resistivity materials
3	9	Stranded Conductors
	10	Bundle Conductors
	11	low resistivity Copper Alloys
	12	Properties and Application of high resistivity material .

Subesh Chandan Nayak
Signature of the Faculty

Subject: Electrical Engg. Material No. of Days/per week class allotted 4

Semester From Date: 09.09.2022 To Date: 22.12.2022 No. of Weeks: 15

Week	Class Day	Theory /Practical Topics
4	13	Properties and Application of high resistivity material
	14	Super Conductivity
	15	Superconducting Materials
	16	Application of Superconductor materials
5	17	Introduction of Semiconducting Materials . Semiconductor
	18	Electron Energy and Energy band Theory
	19	Excitation of Atoms, Insulators , Semiconductor and Conductor
	20	Semiconductor Material Covalent band
6	21	Intrinsic Semiconductor Extrinsic Semiconductor
	22	N-type Semiconductor Materials P-type Semiconductor Materials
	23	Minority and Majority Carrier
	24	Application of Semiconductor materials Rectifiers , Thermistors

Sudesh Chandan Mehera
Signature of the Faculty

Subject: Electrical Engg. Material No. of Days/per week class allotted 4

Semester From Date : 15.09.2022 To Date : 22.12.2022 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
7	25	Photoconductive Cells, Photovoltaic Cells Varistors
	26	Transistors, Hall effect generators Solar Power
	27	Introduction of insulating materials
	28	General properties of insulating materials
8	29	Electrical properties of insulating materials
	30	Visual and Mechanical Properties of insulating materials
	31	Thermal Properties of insulating materials
	32	Chemical properties of insulating materials
9	33	Ageing, classification of insulating materials
	34	Properties and Application of insulating materials
	35	Classification of insulating material on the basis of physical and Chemical Structure
	36	Insulating Gases Commonly used insulating Gases.

Sudesh Chandra Nayak
Signature of the Faculty

Subject: Electrical Engg. Material No. of Days/per week class allotted 4

Semester From Date : 15.09.2022 To Date : 22.12.2022 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
10	37	Introduction of Dielectric Materials
	38	Dielectric Material Dielectric Constant of Permittivity
	39	Polarisation
	40	Dielectric loss
11	41	Electric Conductivity of Dielectrics and their Breakdown
	42	Properties of Dielectrics
	43	Application of Dielectrics
	44	Introduction of Magnetic Material
12	45	Classification of Magnetic Materials
	46	Diamagnetism Paramagnetism
	47	Ferromagnetism, Magnetisation Curve
	48	Hysteresis, Eddy Currents Curie point.

Subash Chandra Singh
Signature of the Faculty

Subject: Elect. Engg. Material No. of Days/per week class allotted 4

Semester From Date : 15.09.2022 To Date : 22.12.2022 No. of Weeks : 15

Week	Class Day	Theory /Practical Topics
13	49	Magnetostriction Soft and Hard Magnetic Materials
	50	Soft Magnetic Materials
	51	Hard Magnetic Materials
	52	Introduction of Special purposes Materials
14	53	Structural Materials
	54	Protective Materials, Lead
	55	Steel tapes, Wires and Strips
	56	Other materials Thermocouple Materials
15	57	Bimetals
	58	Soldering Materials
	59	Fuse and fuse Materials
	60	Dehydrating Materials

Subesh Chandra Nayak
Signature of the Faculty