


GOVT. POLYTECHNIC SAMBALPUR, RENGALI LESSON PLAN(WINTER-2021)

Discipline : ELECTRICAL ENGG.	Semester: 3th Sem	Name of the Teaching Faculty : SUDHANSHU SWAIN
Subject : EEM	No. of Days / per week class allotted : 04	Semester From date : 01.10.2021 To Date : 08.01.2022
Week	Class Day	Topics
1ST WEEK (04-10-2021 TO 09-10-2021)	1st	Chapter 1 (CONDUCTING MATERIAL) 1. 1 Introduction
	2nd	1. 2 Resistivity, factors affecting resistivity
	3rd	1. 3 Classification of conducting materials into low-resistivity and high resistivity materials
2ND WEEK (18-10-2021 TO 23-10-2021)	1st	1. 4 Low Resistivity Materials Application of copper
	2nd	Application of silver and gold Application of Iltunium and steel
	3rd	1. 5 Stranded conductors 1. 6 Bundled conductors
		1. 7 Low resistivity copper alloys
3RD WEEK (25-10-2021 TO 30-10-2021)	1st	1. 8 High Resistivity Materials and their Applications (Tungsten, Carbon, Platinum, Mercury)
	2nd	1. 9 Superconductivity 1. 10 Superconducting materials
	3rd	1. 11 Application of superconductor materials
	4th	1. 11 Application of superconductor materials
4TH WEEK (01-11-2021 TO 06-11-2021)	1st	SEMICONDUCTING MATERIAL(CHAPTER 2)
	2nd	2. 2 Semiconductors
	3rd	2. 4 Excitation of Atoms 2. 5 Insulators, Semiconductors and Conductors , 2.6 Semiconductor Material
5TH WEEK (08-11-2021 TO 13-11-2021)	1st	2. 7 Covalent Bonds
	2nd	2. 8 Intrinsic Semiconductors
	3rd	2. 9 Extrinsic Semiconductors 2. 10 N-Type Materials 2. 11 P-Type Materials
	4th	2. 12 Minority and Majority Carriers 2. 13 Semi-Conductor Materials
6TH WEEK (15-11-2021 TO 20-11-2021)	1st	2.14 Application of rectifier, photo conducting cell, photo voltaic cell , varistors
	2nd	hall effect generator, solar power.
	3rd	INSULATING MATERIAL(CHAPTER 3) 3.1 Introduction,general property of insulating material electrical, visual, mechanical, thermal, chemical property, ageing

7TH WEEK (22-11-2021 TO 27-11-2021)	1st	3.3 Insulating Materials – Classification, properties,
	2nd	3.3.1 Introduction
	3rd	3.3.2 Classification of insulating materials on the basis
	4th	chemical structure.
8TH WEEK (29-11-2021 TO 04-12-2021)	1st	3.4 Insulating Gases
	2nd	3.4.1 Introduction.
	3rd	3.4.2 Commonly used insulating gases
	4th	4.1 Introduction
09TH WEEK (06-12-2021 TO 11-12-2021)	1st	4.2 Dielectric Constant of Permittivity
	2nd	4.3 Polarization
	3rd	4.4 Dielectric Loss
	4th	4.5 Electric Conductivity of Dielectrics and their Break Down
10TH WEEK (13-12-2021 TO 18-12-2021)	1st	4.6 Properties of Dielectrics.
	2nd	4.7 Applications of Dielectrics
	3rd	4.7 Applications of Dielectrics
	4th	MAGNETIC MATERIAL(CHAPTER 5) 5.1 Introduction
11TH WEEK (20-12-2021 TO 25-12-2021)	1st	5.2.1 Diamagnetism
	2nd	5.2.2 Para magnetism
	3rd	5.2.3 Ferromagnetism 5.3 magnetization curve
	4th	5.4 Hysteresis 5.5 Eddy current
12TH WEEK (27-12-2021 TO 01-01-2022)	1st	5.6 Curie Point ,5.7 Magneto- striction
	2nd	5.8 Soft and Hard magnetic Materials
	3rd	5.8.1 Soft magnetic materials 5.8.2 Hard magnetic materials
	4th	MATERIAL FOR SPECIAL PURPOSES(CHAPTER 6) 6.1 Introduction
13TH WEEK (03-01-2021 TO 08-01-2022)	1st	6.2 Structural Materials 6.3 Protective Materials
	2nd	6.3.1 Lead 6.3.2 Steel tapes, wires and strips
	3rd	6.4 Other Materials 6.4.1 Thermocouple materials 6.4.2 Bimetals
	4th	6.4.3 Soldering Materials 6.4.4 Fuse and Fuse materials. 6.4.5 Dehydrating material

for

 03/11/21
 H.O.D.(ELECTRICAL)