

LESSON PLAN-2022-2023
SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR

Discipline- ELECTRICAL	Semester-3rd	Name of teaching faculty- SUBASH CH. SWAIN
SUBJECT- Electrical Engineering Material	No of days/ per week class allotted-	SEM From date- 16.09.2022 No of weeks-19
Week	Class day	Theory Topics
1st	16.9.2022	1 . 1 Introduction 1 . 2 Resistivity, factors affecting resistivity
	17.09.2022	1 . 3 Classification of conducting materials into low-resistivity and high resistivity materials
	19.09.2022	1 . 4 Low Resistivity Materials and their Applications 1 . 4.1 Copper
	20.09.2022	1 . 4.2 Silver 1 . 4.3 Gold
2ND	21.09.2022	1 . 4.4 Aluminum 1 . 4.5 Steel
	22.09.22	1 . 5 Stranded conductors
	23.09.2022	1 . 6 Bundled conductors
	24.09.2022	1 . 7 Low resistivity copper alloys
3RD	26.09.2022	1 . 8.1 High Resistivity Materials and their Applications 1.8.2. Tungsten 1.8.3 Carbon
	27.09.2022	1.8. Platinum 1.8. Mercury
	28.09.2022	1 . 9 Superconductivity
	29.09.2022	1 . 10 Superconducting materials
4TH	30.09.2022	1 . 11 Application of superconductor materials
	10.10.2022	Revision
5TH	11.10.2022	Class Test
	12.10.2022	2 . 1 Introduction 2 . 2 Semiconductors
	13.10.2022	2 . 3 Electron Energy and Energy Band Theory
	14.10.2022	2 . 4 Excitation of Atoms
	15.10.2022	2 . 5 Insulators, Semiconductors and Conductors
	17.10.2022	2 . 6 Semiconductor Materials 2 . 7 Covalent Bonds
1ST	18.10.2022	2 . 7 Intrinsic Semiconductors 2 . 8 Extrinsic Semiconductors
	19.10.2022	2 . 10 N-Type Materials 2 . 11 P-Type Materials

2ND	20.10.2022	2 . 12 Minority and Majority Carriers 2 . 13 Semi-Conductor Materials
	21.10.2022	14 Applications of Semiconductor materials 2.14.1 Rectifiers 2.14.2 Temperature-sensitive resistors or thermistors
	22.10.2022	2.14.3 Photoconductive cells 2.14.4 Photovoltaic cells 2.14.5 Varistors
	26.10.2022	2.14.6 Transistors 2.14.7 Hall effect generators
3RD	27.10.2022	2.14.8 Solar power
	28.10.2022	Revision
	29.10.2022	question discussion
	31.10.2022	3 . 1 Introduction 3 . 2 General properties of Insulating Materials 3.2.1 Electrical properties
4TH	01.11.2022	3.2.2 Visual properties 3.2.3 Mechanical properties 3.2.4 Thermal properties
	02.11.2022	3.2.5 Chemical properties 3.2.6 Ageing
	03.11.2022	3.3 Insulating Materials – Classification, properties, applications 3.3.1 Introduction
	04.11.2022	3.3.2 Classification of insulating materials on the basis of physical and chemical structure
	05.11.2022	do
5TH	07.11.2022	1ST INTERNAL
	10.11.2022	1ST INTERNAL
	11.11.2022	1ST INTERNAL
	12.11.2022	Dielectric Materials: 4.1 Introduction
1ST	15.11.2022	4.2 Dielectric Constant of Permittivity
	16.11.2022	4.3 Polarisation
	17.11.2022	4.4 Dielectric Loss
	18.11.2022	4.5 Electric Conductivity of Dielectrics and their Break Down
	19.11.2022	4.6 Properties of Dielectrics
2ND	21.11.2022	4.7 Applications of Dielectrics
	22.11.2022	Class Test
	23.11.2022	Magnetic Materials: 5.1 Introduction
	24.11.2022	5.2 Classification 5.2.1 Diamagnetism

		5.2.2 Para magnetism 5.2.3 Ferromagnetism
	25.11.2022	5.3 Magnetization Curve 5.4 Hysteresis
3RD	26.11.2022	5.5 Eddy Currents
	28.11.2022	5.6 Curie Point 5.7 Magneto-striction
	29.11.2022	5.8 Soft and Hard magnetic Materials 5.8.1 Soft magnetic materials 5.8.2 Hard magnetic materials
	30.11.2022	do
	01.12.2022	Class Test
4TH	02.12.2022	6. Materials for Special Purposes 6.1 Introduction
	03.12.2022	6.2 Structural Materials
	05.12.2022	do
	06.12.2022	6.3 Protective Materials 6.3.1 Lead 6.3.2 Steel tapes, wires and strips
	07.12.2022	do
	08.12.2022	6.4 Other Materials 6.4.1 Thermocouple materials
1ST	09.12.2022	6.4.2 Bimetals
	10.12.2022	6.4.3 Soldering Materials
	12.12.2022	6.4.4 Fuse and Fuse materials
	13.12.2022	6.4.5 Dehydrating material
2ND	14.12.2022	question discussion
	15.12.2022	question discussion
	17.12.2022	question discussion

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