Lesson Plan-cum-Course Progress Report

Name of the Institute :	**C.V Raman Polytechnic,BBSR**		
Department :	**Electrical Engineering**		
Semester/Division/Branch :	**3rd semester,EE**		
Subject Name with code :	**ELECTRICAL ENGINEERING MATERIAL**		
Total No. of Class (Required) :	**60**	**Page: of**	
Faculty Name :	**RUPALI BALABANTARAY**	**Date (Lesson Plan):**	**12.09.2022**

Class No.	Brief Description of the Topic/Chapter to be taught	Status of Course Cover (write Yes, if taught)	Sign (Faculty/ LA)	Date (Course Covered)	Course Prog. Reviewed by	Remarks
1	Introduction to coductivity of metals					
2	Resistivity, factors affecting resistivity					
3	Classification of conducting materials into low & high resistivity materials					
4	Low Resistivity Materials and their Applications(Copper, Silver,)					
5	Low Resistivity Materials and their Applications(Gold, Aluminum, Steel))					
6	Problems on Resistivity and temperature of the material					
7	What is a Stranded conductors with examples					
8	What is Bundled conductors with examples					
9	Solving of problems on different types of conductors					
10	Low resistivity copper alloys with examples					
11	Problems on low resistivity copper alloys					
12	High Resistivity Materials and their Applications(Tungsten, Carbon)					
13	High Resistivity Materials and their Applications(Platinum, Mercury)					
14	Concept of super conductivity					
15	Superconducting materials with applications					
16	Problems on conductivity of a material					
17	Introduction to semicoductor					
18	Semiconductors materials					
19	Electron Energy and Energy Band Theory					
20	Electron Energy and Energy Band Theory for semiconductors					
21	Excitation of Atoms by different methods					
22	Difference betweenInsulators, Semiconductors and Conductors					
23	Different types of Semiconductor Materials					
24	concept of Covalent Bonds					
25	Concept of Intrinsic Semiconductors					
26	Examples of intrinsic Semiconductors					
27	Concept of Extrinsic Semiconductors					
28	Examples of Extrinsic Semiconductors					
29	N-Type Materials with examples					
30	P-Type Materials with examples					
31	Minority and Majority Carriers Concept					
32	Applications of Semiconductor materials(Rectifiers)					
33	Temperature-sensitive resisters or thermistors as semiconductor					
34	Photoconductive cells, Photovoltaic cells					
35	Varisters,Transistors as semiconductors					
36	Concept of Hall effect generators as conductors					
37	Introduction to Insulating Materials					

38	General properties of Insulating Materials(Electrical properties,Visual properties)					
39	General properties of Insulating Materials(Mechanical properties,Thermal properties)					
40	General properties of Insulating Materials(Chemical properties,Ageing)					
41	Classification of insulating materials on the basis physical					
42	Classification of insulating materials on the basis chemical structure					
43	Introduction to Insulating Gases					
44	Commonly used insulating gases					
45	Introduction Dielectric Materials					
46	Dielectric Constant of Permittivity					
47	Problems on Dielectric Constant					
48	Concept of Polarization					
49	Concept of Dielectric Loss					
50	Problems on Polarization and Dielectric Constant					
51	Electric Conductivity of Dielectrics and their Break Down					
52	Properties of Dielectrics and application					
53	Introduction to Magnetic Materials					
54	Classification(Diamagnetic, Paramagnetic, Ferromagnetic)					
55	Magnetization Curve, Hysteresis, Eddy Currents,Curie Point					
56	Soft magnetic materials,Hard magnetic materials					
57	Introduction Structural Materials as special purpose materials					
58	Lead,Steel tapes, wires and strips as Special Purpose Material					
59	Soldering Materials, Fuse and Fuse materials,Dehydrating material.					
60	Bimetals,Soldering Materials					

Sign. of Faculty **Sign. of H.O.D** **Sign. of Principal**