Lesson Plan

Name of the Institute :	CV RAMAN POLYTECHNIC
Department :	ELECTRONICS AND TELECOMMUNICATION ENGINEERING/ELECTRICAL ENGINEERING
Semester/Division/Branch :	1ST/EE&MECH
Subject Name with code :	Fundamental of Electrical and Electronics Engineering
Total No. of Class (Required) :	60
Faculty Name :	SABYASACHI PATRA/ RASHMI RANJAN MARTHA

Class No.	Brief Description of the Topic/Chapter to be taught	Remark
1	Introduction to Basic electronics	
2	Passive Active Components	
3	Resistances, Capacitors, Inductors	
4	Diodes, Transistors	
5	FET	
6	MOS and CMOS and their Applications	
7	Concept and simple problems of Resistance	
8	Capacitor & Inductor	
9	Definition, classification and Working of diode	
10	PN juction	
11	LED, Zener,LED, Zener	
12	FET, Concept of MOS and CMOS	
13	Overview of Analog Circuits: Signals: DC/AC,voltage/current, periodic/non-periodic signals	
14	average, rms, peak values, different types of signal waveforms,	
15	Ideal/non-ideal voltage/current sources ,independent/dependent voltage current sources. (Definitions)	
16	Operational Amplifiers-Ideal Op-Amp,Practical op amp,Open loop and closed loop configurations,	
17	Application of Op-Amp as amplifier	
18	adder, differentiator and integrator	
19	doubt clearing class	
20	Introduction to Boolean Algebra,	
21	Electronic Implementation of Boolean Operations,	
22	Simple problems of Number system	
23	Gates-Functional Block Approach	
24	Storage elements-Flip Flops-A Functional block approach	
25	Counters: Ripple counter design.	
26	Up/down counter design	
27	decade counter design	
28	Introduction to digital IC Gates (of TTL Type).	
29	Introduction to digital IC Gates (of TTL Type).	
30	doubt clearing class	
31	Introduction to Fundamental of electrical circuit	
32	Understanding the concept of EMF, Current, Potential Difference, Power and Energy	
33	Introduction to Fundamental of Magnetic circuit,Define M.M.F, magnetic force	
34	Understanding the concept of permeability, reluctance, leakage factor	
35	Analyze the BH curve, hysteresis loop	
36	Understanding the concept of Electromagnetic induction, Faraday's laws of electromagnetic induction, Lenz's law	

Class No.	Brief Description of the Topic/Chapter to be taught	Remark
37	Dynamically induced emf, Statically induced emf, Equations of self and mutual inductance	
38	Analogy between electric and magnetic circuits.	
39	doubt clearing class	
40	Introduction to AC circuit: Cycle, Frequency, Periodic time, Amplitude, Angular velocity,	
41	Understanding the concept of RMS value, Average value, Form Factor Peak Factor	
42	Understanding the concept of impedance, phase angle, and power factor	
43	Mathematical and phasor representation of alternating emf and current	
44	Voltage and Current relationship in Star and Delta	
45	A.C in resistors, inductors and capacitors	
46	Analyze the A.C in R-L, R-C series	
47	Analyze the A.C in R-L-C series and parallel circuits	
48	Power in A. C. Circuits, power triangle.	
49	doubt clearing class	
50	Introduction to Transformer and Machines	
51	General construction of Transformer	
52	principle of different type of transformers	
53	Emf equation of transformers	
54	Transformation ratio of transformers	
55	Auto transformers	
56	Construction of DC motors	
57	Working principle of DC motors	
58	Basic equations of different types of DC motors.	
59	characteristic of different types of DC motors.	
60	doubt clearing class	

Sign. of Faculty

Sign. of H.O.D