

Hour	Unit	Topic	Teaching Methodology	Remarks
1	I	Basic Definitions, R, L, C Elements	Whiteboard	
2	I	Voltage & Current Sources – Independent & Dependent	Whiteboard	
3	I	Ohm's Law	Whiteboard	
4	I	Series & Parallel Circuits	Whiteboard	
5	I	Source Transformation	Whiteboard	
6	I	Kirchhoff's Laws (KVL & KCL)	Whiteboard	
7	I	Faraday's Laws of Electromagnetic Induction	Whiteboard	
8	I	Lenz's Law + Practice Problems	Whiteboard	
9	II	Sinusoidal Waveforms – Peak, RMS Values	Whiteboard	
10	II	Phasor Representation	Whiteboard	
11	II	AC Circuit with R	Whiteboard	
12	II	AC Circuit with L	Whiteboard	
13	II	AC Circuit with C	Whiteboard	
14	II	AC Circuit with RL	Whiteboard	
15	II	AC Circuit with RC	Whiteboard	
16	II	AC Circuit with RLC (Series)	Whiteboard	
17	II	Real, Reactive, Apparent Power	Whiteboard	
18	II	Power Factor and Related Problems	Whiteboard	
19	III	DC Generator – Principle & Construction	Whiteboard	
20	III	EMF Equation & Classification	Whiteboard	
21	III	O.C.C, Internal & External Characteristics	Whiteboard	
22	III	Applications of DC Generators	Whiteboard	
23	III	DC Motor – Principle & Torque Equation	Whiteboard	
24	III	Classification of DC Motors	Whiteboard	
25	III	Speed Control Methods	Whiteboard	
26	III	3-Point Starter Operation	Whiteboard	
27	III	Applications of DC Motors	Whiteboard	
28	IV	PN Junction Diode – Formation	Whiteboard	
29	IV	V-I Characteristics of PN Diode	Whiteboard	

30	IV	Diode as a Switch	Whiteboard	
31	IV	Zener Diode – Characteristics	Whiteboard	
32	IV	Zener Diode as Voltage Regulator	Whiteboard	
33	V	BJT – Configurations (CB, CE, CC)	Whiteboard	
34	V	Input & Output Characteristics of CB	Whiteboard	
35	V	Input & Output Characteristics of CE	Whiteboard	
36	V	Input & Output Characteristics of CC	Whiteboard	
37	V	Relation Between α , β , and γ	Whiteboard	
38	V	Introduction to FET	Whiteboard	
39	V	Characteristics of JFET	Whiteboard	
40	V	MOSFET – Enhancement Mode	Whiteboard	
41	V	MOSFET – Depletion Mode	Whiteboard	
42	All	Practice Problems – Units I & II	Whiteboard	
43	All	Practice Problems – Units III & IV	Whiteboard	
44	All	Recap – Diode and Transistor	Whiteboard	
45	All	Previous Year Questions Discussion	Whiteboard	
46	All	Viva Questions & Clarifications	Whiteboard	
47	All	Revision Session 1	Whiteboard	
48	All	Final Review and Feedback	Whiteboard	