

Bhoj Reddy Engineering College for Women: Hyderabad

Department of Electrical and Electronics Engineering

Lesson plan of faculty member for the academic year 2016–17

Class: II B Tech

Branch-Section: ECE-B

Semester: II

Subject: Principles of Electrical Engineering (PEE)

Lectures per week: 4

Lecture Number	Topics to be covered	Date (s)
UNIT – I: TRANSIENT ANALYSIS		
1	Introduction about transient analysis	9 December 2016
2	Transient response of RL series circuits for DC excitation	13 December 2016
3	Numerical problems	15 December 2016
4	Transient response of RC, RLC series circuits for DC excitation	16 December 2016
5	Numerical problems	19 December 2016
6	Initial condition, Solution using Differential Equations approach	20 December 2016
7	Laplace transform method	22 December 2016
8	Numerical problems	23 December 2016
UNIT-II: TWO PORT NETWORKS		
9	Impedance parameters	27 December 2016
10	Admittance parameters	29 December 2016
11	Numerical problems	30 December 2016
12	Hybrid parameters	2 January 2017
13	Transmission (ABCD) parameters	5 January 2017
14	Numerical problems	6 January 2017
15	Conversions of one parameter to another	9 January 2017
16	Conditions for reciprocity and symmetry	10 January 2017
17	Inter connection of two port networks in series, parallel & cascaded configurations	12 January 2017
18	Image parameters and Numerical problems	13 January 2017
UNIT-III: FILTERS AND SYMMETRICAL ATTENUATORS		
19	Classification of filters and Filter networks	16 January 2017
20	Classification of Pass band and stop band	17 January 2017
21	Characteristic impedance in Pass band and stop band	19 January 2017
22	Numerical problems	20 January 2017
23	Constant K low pass filter	23 January 2017
24	Constant High pass filter	24 January 2017
25	Numerical problems	27 January 2017
26	m-derived T section	20 February 2017
27	Numerical problems	21 February 2017
28	Band Pass filter	23 February 2017
29	Band Elimination filter	27 February 2017
30	Numerical problems	28 February 2017
31	Symmetrical Attenuators – T- type Attenuator	2 March 2017
32	P-Type Attenuator, Problems	3 March 2017
33	Bridged T-Attenuator and Lattice attenuator	6 March 2017
34	Numerical problems	7 March 2017
UNIT-IV: DC MACHINES		
35	Principle of operation of DC machine	9 March 2017
36	EMF Equation, Types of generators	10 March 2017
37	Magnetization characteristics of DC Generator	13 March 2017
38	Load characteristics of DC Generator	14 March 2017
39	DC Motors: principle of operation, Types of DC Motors	16 March 2017
40	Characteristics of DC Motors, Losses and efficiency	17 March 2017
41	Swinburne's test	20 March 2017
42	Numerical problems	21 March 2017

43	Speed control: Flux control	23 March 2017
44	Numerical problems	24 March 2017
45	Speed control of DC Shunt Motor: Flux and Armature voltage control methods	27 March 2017
46	Numerical problems	28 March 2017
UNIT-V: TRANSFORMER AND THEIR PERFORMANCE		
47	Principle of operation single phase transformer, Types	30 March 2017
48	Construction features	31 March 2017
49	Phasor diagram on No-load and Load	3 April 2017
50	Equivalent circuit	4 April 2017
51	Losses and efficiency of transformer	6 April 2017
52	Regulation	7 April 2017
53	OC and SC Tests, Numerical problems	10 April 2017
54	Synchs, Stepper motors	11 April 2017
55	Numerical problems	13 April 2017

Text books:

1. A. Chakrabarhty, "Electrical Circuits" Dhanipat Rai & Sons.
2. PS Subramanyam, "Basic Concept of Electrical Engineering" BS Publication

Name and signature of the faculty: Mr Vinay Kumar T -----

Name and signature of Head of the Department: Ms Mastanamma Y -----