Bhoj Reddy Engineering College for Women: Hyderabad

Department of Electronics and communication Engineering

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

Class: I B Tech Branch-Section: EEE Semester: I

Subject: Basic Electrical And Electronics Engineering Lectures per week: 5

Lecture number	Topic to be covered	Date(s)
UNIT-I Introduction to electrical circuits		
1	Introduction to electrical circuits	9 August 2016
2	Circuit concepts	10 August 2016
3	R-L-C Parameters	11 August 2016
4	Classification of Energy sources	12 August 2016
5	Source transformation &Voltage and current relationships for passive elements	16 August 2016
6	Kirchhoff's laws	18 August 2016
7	Network reduction techniques Mesh analysis	19 August 2016
8	Nodal analysis & Mesh analysis	22 August 2016
9	Super node techniques for DC excitation	23 August 2016
10	Super mesh techniques for DC excitation	24 August 2016
11	Introduction to single phase ac circuits	26 August 2016
12	Definitions related to a.c circuits	29 August 2016
13	RMS Value & Average value for periodic waveforms Form factor & peak factor for periodic waveforms	30 August 2016
14	Phase and phase difference & Complex and polar forms of representation &j J-notation	31 August 2016
15	Steady state analysis :AC through pure resistor	1 September 2016
16	AC through pure capacitor, AC through pure inductor	2 September 2016
17	Series RL circuits & Series RC circuits	6 September 2016
18	Series RLC circuits	7 September 2016
19	Series RLC circuits problems	8 September 2016
20	Parallel circuits	9 September 2016
21	parallel circuits problems	13 September 2016
UNIT-II Resonance and Network theorems		
22	Concept of locus diagrams	14 September 2016
23	Series RC circuits with the variation of parameters	15 September 2016
24	Series RLC circuits with the variation of parameters	16 September 2016
25	Parallel circuits with the variation of parameters	19 September 2016
26	Concept of resonance	20 September 2016
27	Series resonance and problems	21 September 2016
28	Parallel resonance and problems	22 September 2016
29	Thevenin's, Norton's, Maximum power transfer theorem	23 September 2016
30	Superposition,Reciprocity,Tellegen's Theorem	26 September 2016
31	Compensation theorem and problems	27 September 2016
32	problems	28 September 2016

UNIT-III P-N junction diode, rectifiers and filters		
33	Introduction to p-n junction diode,	29 September 2016
34	diode equation	3 October 2016
35	Energy band diagram,	4 October 2016
36	V-I characteristics,temperature dependence	17 October 2016
37	Ideal versus practical diode,static and dynamic resistances,	18 October 2016
38	Equivalent circuit,load line analysis	
39	Diffusion and transition capacitances	19 October 2016
40	Problems	20 October 2016
41	Rectifiers	21 October 2016
42	Harmonic components in rectifier circuits	24 October 2016
43	Rectifier problems	25 October 2016
44	Filters, l- filter, c- filter	26 October 2016
45	l- section filter, pi section filter	27 October 2016
46	Filters problems	28 October 2016
UNIT-IV Bipolar Junction Transistor(BJT),Transistor Configurations		
47	Construction, principle of operation,symbol, amplifying section	31 October 2016
48	Common base common collector common emitter configurations	1 November 2016
49	Transistor biasing and stabilization	2 November 2016
50	Fixed biasing, feedback biasing	3 November 2016
51	problems	4 November 2016
52	BJT modeling, hybrid modeling	7 November 2016
53	h-parameters from transistor configuration	8 November 2016
54	Problems on h-parameters	9 November 2016
55	CE,CC,CB configuration using h-parameters	10 November 2016
56	problems	11November 2016
UNIT-V Junction Field Effect Transistor And Special Purpose Devices		
57	Construction, principal of operation JFET	15 November 2016
58	V-I characteristics	16 November 2016
59	Comparison of BJT and FET	17 November 2016
60	Small signal model of JFET and problems	18 November 2016
61	Semi-conductor diodes, Zener diode	22 November 2016
62	Zener diode	23 November 2016
63	Tunnel diode, varactor diode	24 November 2016
64	SCR Introduction	25 November 2016
65	Problems on BJT and FET	28 November 2016
66	Problems on JFET	29 November 2016
67	Problems on SCR	30 November 2016
68	Problems on diodes	1 December 2016
69	Revision of unit V	2 December 2016
70	Revision of unit lV	5 December 2016
71	Revision of total syllabus	6 December 2016

Text Books:

1. Basic Electrical and electronics Engineering – M S Sukija, TK Nagasarkar

2. Basic Electrical and electronics Engineering-D P Kothari, I J Nagarath

3. Millman's Electronic Devices and Circuits – J. Millman and C.C. Halkias, Satyabratajit, TMH, 2/e, 1998.

Name and signature of the faculty: M Swapna ---

Name and signature of Head of the Department: Ms N Shribala(ECE) ---

Ms Mastanamma Y(EEE) ---