

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: CSE-B

Semester: I

Subject: Basic Electrical Engineering

Lectures per week: 4+1 (Tutorial)

Lecture Number	Topics to be covered	Date (s)
UNIT – I: Introduction to Electrical Engineering		
1	Introduction to BEE	13 June 2016
2	Ohm's law and problems	15 June 2016
3	Basic circuit components	17 June 2016
4	Kirchhoff's law, Sample Problems	18 June 2016
5	Tutorial (G2,G1,G3) - Problems on KVL and KCL	13, 17, 18 June 2016
6	Basic definitions of networks	20 June 2016
7	Types of elements	22 June 2016
8	Types of sources	24 June 2016
9	Resistive networks, Inductive networks	25 June 2016
10	Tutorial (G2,G1,G3) - Problems on R and L networks	20, 24, 25 June 2016
11	Capacitive networks	27 June 2016
12	Series-Parallel circuits	29 June 2016
13	Numerical	1 July 2016
14	Star-Delta conversion	2 July 2016
15	Tutorial (G2,G1,G3) - Problems on Series-Parallel circuits	27 June, 1,2 July 2016
16	Delta-Star conversion	4 July 2016
17	Superposition theorem	8 July 2016
18	Thevenin's theorem	9 July 2016
19	Tutorial (G2,G1,G3) - Problems on Theorems	4,8,9 July 2016
20	Maximum power transfer theorem	11 July 2016
21	Problems on theorems	13 July 2016
UNIT-II: Alternating Quantities		
22	Principles of ac voltages, wave forms	15 July 2016
23	Basic definitions	16 July 2016
24	Tutorial (G2,G1,G3) - Problems on waveforms	11,15,16 July 2016
25	Principles of ac voltages, wave forms	18 July 2016
26	Form and peak factor	20 July 2016
27	Numerical on RMS values, Average values, Form Factor	22 July 2016
28	Phasor representation of alternating quantities	23 July 2016
29	Tutorial (G2,G1,G3) - Problems on Form and Peak Factor	18,22,23 July 2016
30	j operator and Phasor algebra, Numerical	25 July 2016
31	Analysis of ac circuits with single basic network element	27 July 2016
32	Single phase series circuits, Numerical	29 July 2016
UNIT-III: Transformers		
33	Principle of operation of transformer	30 July 2016
34	Tutorial (G2,G1,G3) - Problems on Single phase AC Circuits	25,29,30 July 2016
35	Constructional details	3 August 2016
36	Ideal transformer	5 August 2016
37	Practical transformer	6 August 2016
38	Tutorial (G2,G1,G3) - Problems on magnetizing components	5,6 August 2016
39	Losses ,Numerical on losses	17 August 2016
40	OC test, SC test on transformer	19 August 2016
41	OC test, SC test Numerical	20 August 2016
42	Tutorial (G2,G1,G3) - Problems on Losses	19,20 August 2016
43	Efficiency and regulation calculations	22 August 2016

UNIT-IV: DC & AC Machines		
44	Principle Of Operation of DC Machines	24 August 2016
45	Types of DC Generators,	26 August 2016
46	Emf equation in DC Generator	27 August 2016
47	Tutorial (G2,G1,G3) - Problems on Emf equation	22,26,27 August 2016
48	Principle of operation of D.C Motor	29 August 2016
49	Types of D.C Motors	31 August 2016
50	Numerical	2 September 2016
51	Losses and Torque equation	3 September 2016
52	Tutorial (G2,G1,G3) - Problems on losses and Torque equation	29 August, 2,3 September 2016
53	Losses and Efficiency calculation in D.C Generator	7 September 2016
54	3-ph induction motor	9 September 2016
55	Principle of operation of a 3-ph induction motor	10 September 2016
56	Tutorial:(G1,G3) – Problems on Efficiency	9,10 September 2016
57	Slip and Rotor frequency	14 September 2016
58	Torque Equation, Simple problems	16 September 2016
59	Introduction	17 September 2016
60	Tutorial (G1,G3) - Problems on slip and rotor frequency	16,17 September 2016
UNIT-V: Basic Instruments		
61	Classification of instruments	19 September 2016
62	Operating principles	21 September 2016
63	Essential features of measuring instruments	23 September 2016
64	Essential features of measuring instruments	24 September 2016
65	Tutorial (G2,G1,G3) - Problems on Torques	19,23,24 September 2016
66	Moving Coil Permanent magnet Instruments (PMMC)	26 September 2016
67	Moving Iron ammeters	28 September 2016
68	Moving Iron Voltmeters	1 October 2016
69	Tutorial (G2, G3) - Problems on MC	26,September,1 October 2016
70	Simple Problems	3 October 2016
71	Tutorial (G2) - Problems on Previous Question Papers	3 October 2016
72	Discussion on objectives	28 October 2016
73	Numerical from Previous Question Paper	29 October 2016
74	Tutorial (G1,G3) - Problems on Previous Question Papers	28,29 October 2016
75	Numerical from Previous Question Paper	31 October 2016
76	Revision	2 November 2016
77	Tutorial (G2) - Problems on Previous Question Papers	31 October 2016

Text books:

1. PS Subramanyam, “Basic concept of Electrical Engineering”, BS Publications.
2. S N Singh, “Basic Electrical Engineering”, PHI.
3. TK Nagsarkar and MS Sukhija, “Basic Electrical Engineering”, Oxford University Press.
4. VK Mehta and Rohit Mehta “Principle of Electrical Engineering”, S Chand Publications.

Name and signature of the faculty: Ms V Sri Lakshmi Vani ----

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