

2017-2018, II Year I Sem, ECE-B, Ec-1

LESSON PLAN

Subject Code & Name: 6EC206 & Electronic Circuits - I
Class / Semester : II Year I Sem.

Branch : ECE - B
Academic Year : 2017 - 18

Period	Date (Tentative)	Topic	Unit No.	Teaching Methodology	Remarks	Corrective action upon review
Unit-1						
1.	28-6-17	Introduction of Rectifier and Filter Circuits	1	CR		
2.	29-6-17	Half wave rectifier and full wave rectifier (Center Taped and Bridge)	1	CR		
3.	1-7-17	Analysis of Rectifiers and harmonic components in a rectifiers	1	CR		
4.	3-7-17	Ripple factor of Half wave rectifier and full wave rectifier	1	CR		
5.	5-7-17	Introduction of Filters, Inductor filters	1	CR		
6.	6-7-17	Capacitor filter, L-Section Filter, π -Section filter	1	CR		
7.	8-7-17	Multiple L-Section Filter, π -Section filters	1	CR		
8.	10-7-17	Comparison of filter circuits in terms of ripple factor	1	CR		
9.	16-7-17	Problems based on rectifiers and filter circuits	1	CR		
10.	17-7-17	End exams question papers discussed	1	CR		
Unit-2						
11.	19-7-17	Introduction of Transistor Biasing and Stabilization	2	CR		
12.	20-7-17	Operating point, Basic stability	2	CR		
13.	22-7-17	Collector to base bias	2	CR		
14.	24-7-17	Self bias Amplifiers	2	CR		
15.	26-7-17	Stabilization against variations in V_{BE} and β for the self bias circuit	2	CR		
16.	27-7-17	Derivations of stabilization factors $S_{V_{BE}}$, S_{β}	2	CR		
17.	29-7-17	Bias compensation	2	CR		
18.	31-7-17	Thermistor and sensor compensation	2	CR		
19.	2-8-17	Compensation against variation in V_{BE} , I_{CO}	2	CR		
20.	3-8-17	Thermal runaway and Thermal stability	2	CR		
21.	5-8-17	Problems based on biasing circuits and End exams question papers discussed	2	CR		
Unit-3						
22.	7-8-17	Introduction to low frequency analysis of transistor	3	CR		
23.	9-8-17	Two port devices and hybrid model	3	CR		
24.	10-8-17	Transistor hybrid model	3	CR		
25.	16-8-17	Determination of h-parameters from characteristics	3	CR		
26.	17-8-17	Measurement of h-parameters	3	CR		
27.	19-8-17	Conversion formulas for the parameters of three transistor configurations	3	CR		
28.	21-8-17	Analysis of transistor amplifier circuits using h-parameters	3	CR		
29.	23-8-17	Comparison of transistor amplifier configurations	3	CR		
30.	24-8-17	End exams question papers discussed	3	CR		
Unit-4						
31.	26-8-17	Introduction to Single stage amplifiers	4	CR		
32.	28-8-17	Simplified common emitter hybrid model	4	CR		

33.	30-8-17	Simplified calculations for common collector configuration	4	CR		
34.	31-8-17	Simplified calculations of common base amplifier	4	CR		
35.	1-9-17	Common emitter amplifier with emitter resistance	4	CR		
36.	2-9-17	Emitter follower	4	CR		
37.	4-9-17	Miller's theorem and Dual of miller's theorem	4	CR		
38.	6-9-17	FET as voltage variable resistor	4	CR		
39.	7-9-17	Small signal model of FET	4	CR		
40.	9-9-17	End exams question papers discussed	4	CR		
Unit-V						
41.	11-9-17	Introduction to Feedback Amplifiers	5	CR		
42.	13-9-17	Classification of Amplifiers,	5	CR		
43.	18-9-17	Feedback concept,	5	CR		
44.	20-9-17	Transfer Gain with feedback,	5	CR		
45.	21-9-17	General characteristics of negative feedback amplifiers,	5	CR		
46.	23-9-17	Effect of Feedback on input and output Resistances,	5	CR		
47.	4-10-17	Method of Analysis of Feedback Amplifiers,	5	CR		
48.	5-10-17	Voltage series,	5	CR		
49.	7-10-17	voltage shunt	5	CR		
50.	9-10-17	current series,	5	CR		
51.	11-10-17	Current shunt feedback amplifiers with discrete components	5	CR		
52.	16-10-17	Analysis of the current shunt feedback	5	CR		
53.	18-10-17	Problems	5	CR		
54.	21-10-17	End exams question papers discussed				

Faculty Name : K. Chitambar Rao

CR: CLASS ROOM

OHP: OVERHEAD PROJECTOR

LCD

Text Books:

1. Integrated Electronics – J. Millman and C.C. Halkias, Mc Graw Hill, 1972
2. Electronic Devices and Circuits – Salivahanan, N. Suresh Kumar, A. Vallavaraj, Tata Mc Graw Hill, 2/e

Reference Books:

1. Electronic Devices and Circuits Theory – Robert L. Boylestad and Louis Nashelsky, Pearson/Prentice Hall, 2006, 9/e
2. Micro Electronic Circuits – Sedra A.S. and K.C. Smith, Oxford University Press, 5/e

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HEAD OF THE DEPARTMENT

21/10/2017