

Winter 2012-2013

Tutorial problems set

Chapter#2: 7.49,7.57,8.21,8.49

Chapter#2: 8.24,8.59,8.61

Chapter#3: 9.18,9.57,9.61,9.75,9.94,9.96,9.112

Chapter#4: 10.16,10.31,10.43,10.53,10.83,10.89,10.92

Chapter#5: 11.9,11.11,11.15, E11.9, D11.19, D11.25

Chapter#6: 17.10,17.13,17.21(b)

(note: Chapters are according to the lecture note pack.

The problem numbers are according to the ref#1, i.e., the book by Sedra and Smith- 6th edn.)

Column1	Column2	Column2	Column22	Column3	Column4
Dates	Lectures & Tutorials	Topic	Citations from lecture note	Quiz#	Assn# due
09/01/2013	Lec#1	Introduction, Review of ELEC 311			
11/01/2013	Lec#2	Review (cont.), Current source	2.1.1-2.1.4		
16/01/2013	Lec#3	Current mirror, non-idealities, tracking error	2.1.1-2.1.4		
18/01/2013	Lec#4	Improved current mirrors, Active loads, Applications	2.1.4, 2.1.5A-D see ref book#1		
23/01/2013	Lec#5	Active load in current mirrors, Differential amplifiers (DA)	2.2.1-2.2.3		
25/01/2013	Tut WA	7.49,7.57,8.21,8.49	see ref book#1		
25/01/2013	Lec#6	DA (cont.), large signal operation, Calculations for small sig.	2.3.1 see ref book#1		
30/01/2013	Lec#7	DA with active loads, Multistage amplifiers, simple two stage OP-AMP, ac calculations	2.3.2 2.3.3		
01/02/2013	Tut WA	8.24,8.59,8.61	see ref book#1		
01/02/2013	Lec#8	Frequency response of amplifiers, Bode plot, low freq. model	3.2.1-2		Assn#1
06/02/2013	Lec#9	SCTC method, high freq.model of BJT & MOS, OCTC method	3.3.1-2		

08/02/2013	TUT WA	9.18,9.57	see ref book#1	Quiz#1	
08/02/2013	Lec#10	High-frequency resp. of single-stage ampl., Miller's theorem	3.4, 3.5.1-2		
13/02/2013	Lec#11	Freq. response of single stage amp. (cont.)	3.5.3		
15/02/2013	Tut WA	9.61,9.75,9.94			
15/02/2013	Lec#12	Analysis with transfer function, dominant pole, gain bandwidth			
16/02/2013	MT test	Syllabus: Lectures # 2-7			
27/02/2013	Lec#13	multi stage wide-band amplifiers, Cascode configuration	3.6.1-2		Assn#2
01/03/2013	Tut WA	9.96,9.112	see ref book#1	Quiz#2	
01/03/2013	Lec#14	Wide-band DA (cont.), review	3.6.3		
06/03/2013	Lec#15	Negative feedback, basic configurations of feedback, two-port	4.1, 4.2, 4.2.1-5		
08/03/2013	Tut WA	10.16,10.31,10.43			
08/03/2013	Lec#16	loaded amplifier technique, calculation examples	4.2.5-6, 4.3.1-2		
13/03/2013	Lec#17	calculation examples, Stability, Gain and Phase margins	4.3.2-4		
15/03/2013	Tut WA	10.53,10.83	see ref book#1	Quiz#3	
15/03/2013	Lec#18	Frequency compensation, Output stages	4.4-4.5		
20/03/2013	Lec#19	Class A,B,AB stages. Calculations with class A stage	5, 5.1.1		Assn#3
22/03/2013	Tut WA	10.89,10.92,11.9			
22/03/2013	Lec#20	Class B output stage, efficiency, class AB stage	5.1.2-5.1.3		
27/03/2013	Lec#21	Calculations with class AB stage, Biasing in class AB stage	5.1.3-5.2		
29/03/2013		Univ. closed			
29/03/2013		Univ. closed			

03/04/2013	Lec#22	Compound transistors, Thermal considerations, power BJT	5.2-5.5		
05/04/2013	Tut WA	11.11,11.15	see ref book#1	Quiz#4	
05/04/2013	Lec#23	Oscillators, Wien Bridge, Phase shift oscillators	6.8,6.9		
10/04/2013	Lec#24	LC oscillators; Review -I (chapter by chapter)	6.9, 6.10		
12/04/2013	Tut WA	E11.9,D11.19,D11.25	see ref book#1		
12/04/2013	Lect#25	Review-II (from Final Exams, assnments, lecture note)			
15/04/2013	Lec#26	Review-III (from Final Exams, assnments, lecture notes)			
Final Exam	(Syllabus)	Lecture# 7-#24 plus related assignments & tutorial probler	2.3.2 - rest of the notes		