

### Temas incluidos en el Examen 3

Conferencia	Temas	Secciones en libro	Problemas de practica
20 (11/5)	Operational amplifiers, Summers, integrators, inverting and non-inverting amplifiers, T-network, finite gain, summing	9.1, 9.2, 9.3, 9.4	9.5, 7, 11, 13, 15, 27, 34, 35, 37, 41, 42, 43, 48, 50
21 (11/10)	Applications: I-to-V, V-to-I, V-to-I with grounded load, difference, simple IA, IA with R <sub>g</sub> , integrator and differentiator, precision rectifier, log & anti-log	9.5	9.51, 61, 65, 66, 72, 73, 74
22 (11/12)	Current sources (BJT & CMOS)  Simple BJT, effect of base currents, output resistance; source with base current compensation; Cascode; Wilson; Widlar; Multiple mirrors.  Simple FET; Cascode; output resistance; Wilson	10.1...10.4	10.1, 2, 3, 4, 6, 7, 8, 10, 11, 13, 14, 15, 17, 19, 21, 22, 25, 26, 39, 40, 46, 50, 56
23 (11/17)	The differential amplifier  Small signal analysis; Gain; input resistance; single- and double-ended gain; Differential and common-mode input impedances; Emitter degeneration;  FET differential pair.  Active loads	11.1 ... 11.3	11.1, 2, 3, 8, 9, 10, 23, 30, 38, 45, 46, 47
24 (11/19)	DC analysis of the 741 opamp  D.c. current calculation	13.1...	13.3, 4, 6, 8, 10, 12, 13, 14, 17, 20
25 (11/23)	AC analysis of the 741 op-amp; Frequency response and slew rate	13.2	13.21
26 (11/24)	CMOS opamp  2 stage; 3-stage folded-cascode; Current-mirror and cascode current-mirror opamps		
27 (12/1)	Frequency response and slew rate of CMOS opamp	13.3 ...	13.25, 26, 27,