Printed pages: 2		TEC507
(Following paper code and roll No. to be filled in your answer book)		
Paper code: 3000	Roll No.	

B Tech
V SEM. THEORY EXAMINATION, 2012-13
Analog Integrated Electronics

Time : 3 Hours   Total Marks: 100

Note :   (i)   Attempt all questions.
                (ii)   All questions carry equal marks.

1. Attempt any four questions.   (5x4)

(a). Define frequency response with the help of suitable example.

(b).What do you understand by compensated op- amps?

(c). Define break frequency and unity gain band-width product.

(d). Draw and explain the high frequency modal of op-amp?

(e). Explain different types of compensation techniques.

2. Attempt any four questions.   (5x4)

(a). Explain with suitable example and circuit diagram how the op- amp works as a difference amplifier.?

(b). Why is negative feedback used in amplifiers? Explain with the help of suitable examples.

(c). Draw and explain the circuit of typical instrumentation amplifier using two op-amps.

(d). Explain and drive the expression of a practical Integrator circuit?

(e). Explain the circuit of voltage to current converter with floating load.

3. Attempt any two questions. (10x2)

(a). Define the term "filter" and classify filters in various categories. What is the difference between active and passive filter?

(b). Draw the frequency response of Ideal low pass filter and explain the following.

(i).Pass band.

(ii).Stop band.

(iii).Cut off frequency.

(c). Explain the basic principle of Digital to analog converter with suitable circuit diagram.

4. Attempt any two questions. (10x2)

(a). State the important characteristic of comparator and explain any two of them.

(b). Explain precision rectifier with circuit diagram and input output wave -form.

(c). Explain sample and hold circuit.

5. Write short notes on any two. (10x2)

    a. Log and antilog amplifier.

    b. Operational transconductance Amplifier (OTA).

    c. Phase lock Loop (PLL).

    d. Noise in integrated circuits.