

B.E DEGREE EXAMINATIONS: MAY/JUNE 2013

Fourth Semester

EEE106 : LINEAR INTEGRATED CIRCUITS

(Common to ECE / EEE / EIE)

Time: Three Hours

Maximum Marks: 100

Answer all the Questions:-

PART A (10 x 1 = 10 Marks)

1. Which is the Fourth basic process of Silicon Planar Technology
 - a) Epitaxial Growth
 - b) Oxidation
 - c) Photolithography
 - d) Diffusion
2. Which integrated resistor type becomes more economic, based upon no extra fabrication steps required?
 - a) Diffusion Resistor
 - b) Epitaxial Resistor
 - c) Pinched Resistor
 - d) Thin Film Resistor
3. The maximum value of + V_{cc} and – V_{cc} that can be given to op-amp are
 - a) -5V and +5V
 - b) -10V and +10V
 - c) -12V and +12V
 - d) -15V and +15V
4. The propagation delay of op-amp circuits can be tested using
 - a) Differentiator
 - b) LPF
 - c) Comparator
 - d) Difference Amplifier
5. An op-amp function generator circuit produces
 - a) Sine and Cosine wave form
 - b) Sine and Saw tooth waveform
 - c) Square and Triangle waveform
 - d) Rectangular and Saw tooth waveform
6. The number of comparators required for n-bit conversion of a simultaneous conversion type ADC.
 - a) $2^n - 1$
 - b) $n^2 - 1$
 - c) $2n - 1$
 - d) $(n(n+1))/2$
7. The number of pins in IC-555 are
 - a) 12
 - b) 14
 - c) 8
 - d) 10
8. The time taken for a PLL to capture the incoming signal is called
 - a) Pull out time
 - b) Capture time
 - c) Lock out time
 - d) Rise time
9. A voltage regulator circuit with i/p & o/p both AC is known as.
 - a) Current Stabilizer Circuit
 - b) Voltage Stabilizer Circuit

- b) Explain any two techniques of converting analog to digital converter
24. a) Draw a Voltage Controlled Oscillator Circuit and Explain its operation
(OR)
b) Write a note on an analog multiplier
25. a) Draw the internal circuit schematic of LM380 power amplifier and briefly discuss its salient features.
(OR)
b) Draw the block diagram of the function generator ICL 8083 and explain its operation.
