

ANNA UNIVERSITY COIMBATORE

B.E. / B.TECH. DEGREE EXAMINATIONS : MAY / JUNE 2010

REGULATIONS : 2007

FIFTH SEMESTER : EEE

070280040 - LINEAR INTEGRATED CIRCUITS

TIME : 3 Hours

Max.Marks : 100

PART - A

ANSWER ALL QUESTIONS

(20 x 2 = 40 Marks)

1. What is meant by Oxidation?
2. Name the metal used for the metallization process.
3. List the three different package configurations.
4. How do you obtain a triple diffused PNP transistor?
5. List the important characteristics of an Ideal Op-amp.
6. Draw the block schematic of an Op-amp.
7. What is meant by Offset null?
8. Give the expression for CMRR.
9. Draw the basic circuit for Subtractor.
10. Define Slew rate.
11. Name the two types of V to I converter.
12. What is a Transresistance amplifier?
13. Draw the pin configuration of a 566 VCO.
14. State few applications of 555 timer connected in monostable mode.
15. Define Capture range.
16. What is meant by Pull-in time?

17. List some of the applications of Comparator.
18. Define Line regulation.
19. List the package types of LM317 regulator.
20. Give some of the advantages of IC723 regulator.

PART - B

ANSWER ANY FIVE QUESTIONS

(5 x 12 = 60 MARKS)

21. Explain in detail about the Basic planar process.
22. a. Write in detail about the Epitaxial resistor. 6
b. Discuss in detail about Thermal drift. 6
23. Discuss the AC characteristics of an Op-amp.
24. Explain the working of Instrumentation amplifier with neat circuit.
25. Explain the working of (i) V to I converter (ii) I to V converter.
26. Explain the working of Phase Locked Loop.
27. a. Briefly describe the working Schmitt trigger. 6
b. Write in detail about the monolithic switching regulator. 6
28. Explain the working of IC 723 general purpose regulator.

*****THE END*****