SATHYABAMA UNIVERSITY

(Established under section 3 of UGC Act, 1956)

Course & Branch: B.E - EEE
Title of the paper: Analog Integrated Circuits
Semester: IV Max. Marks: 80
Sub.Code: 6C0080 Time: 3 Hours
Date: 03-11-2008 Session: AN

PART – A (10 x 2 = 20)

Answer All the Questions

1. Define slew rate.

2. Write the different current sources.

3. Draw the circuit and waveforms for low pass & band pass filters.

4. What is Schmitt trigger?

5. Define VCO.

6. What is PLL?

7. What are the advantages of dual slope type A/D converters.

8. What is resolution of 10 bit D/A converters?

9. Define Isolation Amplifier.

10. Draw the circuit for F/V converter.

PART – B (5 x 12 = 60)

Answer All the Questions

11. Explain the various characteristics of monolithic Op-Amp & their specifications.

(or)

12. Explain the analysis of differential amplifiers with active loads and variations of supply voltage & temperature.

13. Derive an output equation for an instrumentation amplifier. Explain its applications.

(or)

14. Draw with neat circuit diagram of sine wave oscillator.

15. Explain the operation of voltage controlled oscillator with neat diagram.

(or)

16. Explain the following
(a) FSK Modulation.
(b) FSK Demodulation.

17. Explain the block diagram of single slope, dual slope type A/D converters.

(or)

18. Explain the types of D/A converters.

19. Explain the neat block diagram of switched mode power supply.

(or)

20. Explain the astable mode of operations of 555 timers.