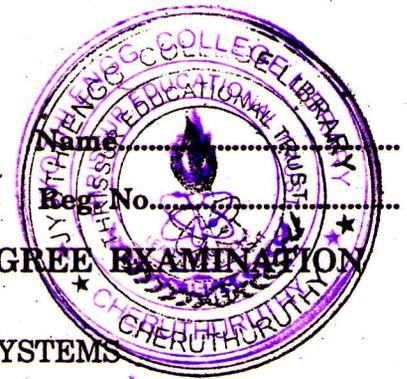


C 31892



**FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION
JUNE 2007**

CS 2K 404—ELECTRONIC CIRCUIT AND SYSTEMS

Time : Three Hours

Maximum : 100 Marks

- I. (a) State and explain miller effect.
(b) Compare ECL and CMOS logic families.
(c) Differentiate RAM from ROM.
(d) Draw a neat sample and hold circuit. State its applications.
(e) State clamping circuit theorem. Mention the types of clampers.
(f) Differentiate DAC from ADC.
(g) What is the need for modulation ? Explain.
(h) Explain the advantages of super heterodyne receivers.

(8 × 5 = 40 marks)

- II. (a) (i) Explain the function of a transistor as a switch.
(ii) Differentiate Monostable from Astable multivibrator.

Or

- (b) Tabulate the differences between clippers and clampers. Sketch all types of clampers and explain their principle in detail.

- III. (a) Broadly compare the performances and parameters of all logic families.
(b) Give an account on :

- 1 Logic levels.
- 2 Mos Flip-Flops.

- IV. (a) Write short notes on :
- 1 Magnetic bubble memories.
 - 2 SRAM and DRAM.

Or

- (b) Draw a neat circuit diagram of any one DAC. Explain its principle of operation.

- V. (a) (i) Define and explain Noise figure. Derive an expression for noise figure.
(ii) Differentiate AM from FM.

Or

- (b) Draw net block diagrams of TRF and superheterodynes of TRF and superheterodyne receivers and explain their principle of operation in detail.

(4 × 15 = 60 marks)