C 31892

Name.....

Reg. No.....

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)