

C 48102



Name .....

Reg. No .....

**FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE**  
**EXAMINATION, JUNE 2008**

**CST 2K 404 – ELECTRONIC CIRCUITS AND SYSTEMS**

Time : Three Hours

Maximum : 100 Marks

- I. (a) State the potential applications of Schmitt trigger.  
(b) Explain the need for bootstrap sweep generators.  
(c) Compare TTL and ECL logic families.  
(d) Explain the concept of SSI.  
(e) Draw the input and output waveforms of sample and hold circuit. Explain them.  
(f) Draw a simple D/A converter circuit. Explain its principle in detail.  
(g) Distinguish PM from FM.  
(h) What are the *three* factors that influence the propagation of electro magnetic waves? Explain them.

(8 × 5 = 40 marks)

- II. (a) Draw a neat circuit diagram of BJT bistable multivibrator. Explain its principle of operation with neat waveforms.

Or

- (b) What are clampers? What are its types? Sketch all the circuits and explain their principle in detail.

- III. (a) Broadly compare all the parameters and performances of logic families.

Or

- (b) Give an account on TTL and MOS flip-flops.

- IV. (a) (i) Explain the following :-

(1) PROM

(2) RAM

(3) SRAM and DRAM

- (ii) Give an account on CD-ROMS.

Or

- (b) (i) Differentiate DAC from ADC.

- (ii) Draw a neat circuit diagram of sample and hold circuit. Explain its principle of operation with waveforms.

- V. (a) (i) Explain the need for modulation.

- (ii) Differentiate AM from FM.

Or

- (b) Tabulate the difference between TRF and superheterodyne receiver. Explain the principle of any one in detail with a neat block diagram.

(4 × 15 = 60 marks)