C 58253

Reg. N

FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE **JUNE 2009**

CS 2K 404—ELECTRONIC CIRCUITS AND SYSTEMS

Time: Three Hours.

Maximum: 100 Marks

Answer all questions.

- I. (a) Write the operation of clamping circuit.
 - (b) Write the concept of bistable mulvibrator.
 - (c) Write the concept of VLSI.
 - (d) Construct CMOS-NOR gate.
 - Write the basic concepts of ROM.
 - Write the drawbacks of weighted resistor D/A converter.
 - (g) What is meant by 'internal noise'?
 - (h) Draw the basic block diagram of communication system.

 $(8 \times 5 = 40 \text{ marks})$

II. (a) Discuss the principle of monostable multivibrator with neat circuit.

- (b) Explain the principle of a stable multivibrator with a neat circuit diagram.
- III. (a) Explain the ECL operation with a neat circuit diagram.

(15 marks)

(b) Write the concepts of totempole TTL and open collector TTL.

(15 marks)

(a) Draw the block diagram of dual slope A/D converter and explain. IV.

(b) Discuss the concept of magnetic surface storage devices.

(15 marks)

(a) Explain the principle of amplitude modulation and demodulation with necessary equations.

(b) Discuss the role of radiation and propagation of electromagnetic waves in communication

(15 marks)

 $[4 \times 15 = 60 \text{ marks}]$