

FOURTH SEMESTER B. TECH. (ENGINEERING) DEGREE EXAMINATION, JUNE 2010

CS 04 406 - ELECTRONIC CIRCUITS AND SYSTEMS

(2004 Admissions)

Time: Three Hours

Maximum: 100 Marks

Part A Answer all the questions.

- 1. What is a diode switch?
- 2. What is a clipping circuit?
- 3. What are different logic levels? Explain briefly.
- 4. Compare the logic families.
- 5. What are Programmable Roms?
- 6. Explain Timing circuits briefly.
- 7. What are the needs for modulation?
- 8. Explain external and internal noise briefly.

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

Part B

1. Explain clipping and clamping circuits in detail with neat sketch.

Or

Explain Schmitt trigger circuit in detail with neat sketch.

(15 marks)

2. Draw a 3 input Standard TTL based NAND gate and explain how the truth table is obtained. What modifications can be incorporated in this?

Or

Explain TTL and MOS Flip-flops in detail with neat sketch.

(15 marks)

3. What is RAM? Explain in detail the different classifications of RAM.

Or

Explain the Magnetic surface storage devices in detail.

(15 marks)

4. Draw the block diagram of a communication system and explain. Discuss the need for modulation and briefly explain about external and internal noises.

Or

Discuss in detail about the radiation and propagation of EM waves.

(15 marks)

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