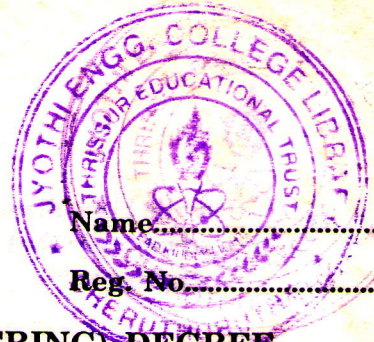


C 6340

(Pages : 2)



Name.....

Reg. No.....

**FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, JUNE 2005**

CS 2K 404. ELECTRONIC CIRCUITS AND SYSTEMS

(New Scheme)

Time : Three Hours

Maximum : 100 Marks

*Answer all questions.
Assume suitable data that are not given.*

1. (a) Draw the response of Schmitt trigger circuit for loop gain ≤ 1 and for loop gain > 1 .
(b) Draw the circuit of Bootstrap sweep circuit with short recovery time.
(c) Define : Fan-out and Noise margin.
(d) Draw the waveforms for measurement of propagation delay times.
(e) Discuss and compare ROM, PROM and erasable ROM.
(f) Discuss dynamic memory storage.
(g) Write the need for modulation.
(h) Write the advantages of FM over AM.

(8 × 5 = 40 marks)
2. (a) Draw the circuit of Miller time base generator and explain its operation.

Or

(b) Draw the circuit of emitter coupled monostable multivibrator and explain its operation with neat waveforms.

(15 marks)
3. (a) Explain wired-AND logic with gate outputs tied together and two input NAND gate with open collector output. Also explain the procedure to determine the value of pull up resistor.

Or

(b) Draw the circuit of Schottky TTL-NAND gate and explain its operation.

(15 marks)
4. (a) (i) Draw the block diagram of four-word, four bit memory and explain. (8 marks)
(ii) Draw the circuit of static MOS memory cell. (7 marks)

Or

(b) Draw the block diagram of a dual-slope A/D converter and explain its operation.

(15 marks)

Turn over

5. (a) Draw the block diagram of the superheterodyne receiver and explain its operation. What are the advantages that the superheterodyne receiver has over the TRF receiver ? Are there any disadvantages ?

Or

(b) For the three common methods of radiowave propagation, explain briefly the mechanisms of propagation, give the approximate frequency and distance ranges of each and mention briefly the limitations of each of the modes of propagation.

[4 x 15]

