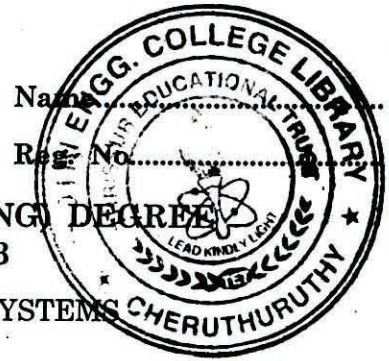


D 33168



FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE
EXAMINATION, FEBRUARY 2013

CS 04 406—ELECTRONIC CIRCUITS AND SYSTEMS

(2004 admissions)

Time : Three Hours

Maximum : 100 Marks

*Answer all questions of I.
Each question carries 5 marks.*

- I. (a) What are the regions in the output characteristics of an amplifier used to operate BJT as a switch ? Why ?
(b) Explain the operation of clipping circuits.
(c) Write the concepts of MOS flip-flop.
(d) Compare the concepts of SSI, MSI and LSI.
(e) Write short notes on magnetic bubble memories.
(f) Write the functions of CD ROMs.
(g) Write the principle and applications of phase modulation.
(h) Define noise figure and give its significance.

(8 × 5 = 40 marks)

*Answer any one question each of II–V.
Each question carries 15 marks.*

- II. (a) Construct a monostable multivibrator and explain the operation.
Or
(b) Explain the concepts of Bootstrap sweep generator with neat diagrams. (15 marks)
- III. (a) Draw the logic circuit of ECL and explain the operation.
Or
(b) Construct logic gates using CMOS and explain each. (15 marks)
- IV. (a) Write the principle of dual slope A/D converter with neat diagram.
Or
(b) Explain the concepts of ROM and programmable ROM. (15 marks)
- V. (a) Explain the principle of FM with mathematical expressions and explain the advantages.
Or
(b) Draw the block diagram of superheterodyne receiver and explain the operation. (15 marks)

[4 × 15 = 60 marks]