C 15225

Name.....

Reg. No.....

FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION DECEMBER 2010

EC 04 405—ELECTRONIC CIRCUITS—II

(2004 Admissions)

Time : Three Hours

Maximum : 100 Marks

I. (a) Explain the non-ideal characteristics of the differential amplifier.

(b) Define the terms CMRR, voltage gain and slow rate with respect to differential amplifier.

(c) Write the function of compensated attenuator.

(d) Explain the operation of triggering circuits.

(e) Explain the operation of collector coupled a stable multivibrator.

(f) Explain the applications of sweep circuits.

(g) What is meant by harmonic distortion ? Explain.

(h) Explain the concepts of broad banding using inductive loads.

(8 × 5 = 40 marks)

II. (A) Explain the operation of differential amplifier with active load.

Or

(B) Explain the large and small signal operation of MOS differential pair.

III. (A) Explain the principle of self biased transistor bistable circuit.

Or

(B) Discuss the Schmitt trigger analysis of emitter coupled circuit.

IV. (A) Discuss the principle and analysis of collector coupled and emitter coupled versions of monostable multivibrator.

Or

(B) Discuss the principles of Miller and boot strap circuit with neat diagrams.

V. (A) Explain the operation of class B and class C amplifiers and discuss their maximum efficiencies.

Or

(B) Explain low frequency and high frequency compensation techniques.

(4 × 15 = 60 marks)