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Name.....

Reg. No.....

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

EC 04 405—ELECTRONIC CIRCUITS—II

(2004 admissions)

Time : Three Hours Maximum : 100 Marks

Answer **all** *questions.*

I. (a) Draw the circuit of symmetrical emitter coupled differential amplifier, and explain the operation.

(b) Define common mode range and slew rate of a differential amplifier.

(c) Explain the triggering methods in multivibrator circuits.

(d) Write short notes on compensated attenuator.

(e) Write the function of sweep generator.

(f) Explain the principle of monostable multivibrator.

(g) Write the concepts of wideband amplifier.

(h) Write short notes on broadbanding using inductive loads.

(8 × 5 = 40 marks)

II. (a) Explain the large and small signal operation of BJT differential pair.

Or

(b) Discuss the non-ideal characteristics of differential amplifier.

(15 marks)

III. (a) Explain the operation of fixed bias and self biased transistor bistable circuit.

Or

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

(15 marks)

IV. (a) Explain the concepts of astable multivibrator with neat circuits.

Or

(b) Explain the principle of Miller and bootstrap circuits.

(15 marks)

V. (a) Explain the principle and applications of Class A, B, AB and Class C amplifiers.

Or

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

(15 marks)

[4 × 15 = 60 marks]