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FOURTH SEMESTER B.TECH. (ENGINEERING) DEGREE EXAMINATION MAY 2012

EC 09 403/PT EC 09 402—ELECTRONIC CIRCUITS

(2009 admissions)

Time: Three Hours

Maximum: 70 Marks

Part A

- 1. Define ripple factor.
- 2. What is a bode plot?
- 3. Define CMRR.
- 4. State an application of monostable multivibrator and Schmitt trigger.
- 5. What is the principle of low power transformers?

 $(5 \times 2 = 10 \text{ marks})$

Part B

Answer any four questions.

- 1. Discuss briefly on inductors.
- 2. Discuss the low and high frequency response of common emitter amplifier.
- 3. Discuss the characteristics of UJT.
- 4. Discuss the working of transistor as a switch.
- 5. Draw the hybric π and τ models of BJT. Discuss the effect of temperature on BJT model parameters.
- 6. Discuss on the stability of oscillators.

 $(4 \times 5 = 20 \text{ marks})$

Part C

1. (a) Discuss the working and efficiency of L, C and LC filters.

Or

- (b) Explain the working of RC coupled multistage amplifier. Discuss its frequency response.
- 2. (a) Explain the working of class AB amplifier.

Or

- (b) Discuss the working of Emitter follower.
- 3. (a) Discuss the working of Hartley oscillator.

Or

- (b) Discuss the frequency response of differential amplifier and methods to improve CMRR of differential amplifier.
- 4. (a) Explain the working of Schmitt trigger.

Or

(b) Explain the working of a monostable multivibrator.

 $(4 \times 10 = 40 \text{ marks})$