Code: 9A10504

R09

B.Tech III Year I Semester (R09) Supplementary Examinations December 2015

LINEAR & DIGITAL IC APPLICATIONS
(Common to E.Con.E, EIE and ECC)

Time: 3 hours   Max Marks: 70

Answer any FIVE questions
All questions carry equal marks
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1 (a) Draw the block diagram of a 741 Op amp and discus its features.
   (b) Explain slew rate, CMRR, PSRR and drift.

2 (a) Explain the working of an instrumentation amplifier using Op amps.
   (b) How does an Op amp work as an integrator and differentiator?

3 (a) Draw the characteristic waveforms and explain the working of a Schmitt trigger.
   (b) Write short notes on FM and FSK.

4 (a) Explain the dynamic electrical behavior of CMOS.
   (b) Discuss different logic families with respect to their features.

5 (a) Compare 74XX and CMOS 40XX.
   (b) Write short notes on low voltage CMOS logic and interfacing.

6 (a) Write about libraries and packages used in VHDL.
   (b) With an example, explain data flow design elements.

7 (a) Write short notes on Mux, De Mux and Code converters.
   (b) Explain the action of parity circuits and comparators.

8 (a) Draw the VHDL model of a shift register and explain.
   (b) Discuss the impediments to synchronous design.

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