

Code: R7410504

**R07** 

B.Tech IV Year I Semester (R07) Supplementary Examinations December 2015

## ADVANCED COMPUTER ARCHITECTURE

(Computer Science and Engineering) (For 2008 regular admitted batch only)

Time: 3 hours Max. Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 (a) What are the technology trends in computer design?
  - (b) What are the principles of computer design?
- 2 (a) What are the categories of Flynn's classification of a computer? Explain it.
  - (b) Distinguish between little Endian and big Endian format.
- 3 (a) What are the basic compiler techniques for ILP?
  - (b) What are the limitations of ILP?
- 4 (a) Explain different addressing modes for main memory.
  - (b) What are the hardware and software solutions for ILP?
- 5 (a) Give the reasons why cache coherence is an accepted requirement in small scale multi processor.
  - (b) Draw the state transition diagram for an individual cache block in a directory based system.
- 6 Explain in detail about the RAID levels.
- 7 Describe different shared memory multi processor models.
- 8 (a) Define the performance parameters of the interconnection networks.
  - (b) Write the practical issues in inter connecting networks. Explain.

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