R09

Code No: C7009

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.Tech I Semester Examinations March/April-2011
ADVANCED COMPUTER ARCHITECTURE
(ELECTRONICS & COMMUNICATION)

Time: 3hours   **Max.Marks:60**

Answer any five questions
All questions carry equal marks
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1) a) What is computer Architecture? Differentiate RISC and CISC Instruction sets?
   b) What is the code sequence for C = (A+B) * (A-B) for four classes of
      Instruction sets.   [12]

2) What is memory addressing? What is the need of addressing mode? Explain.
   types of addressing modes (at least nine) with examples. And also explain the
   usage of each addressing mode.   [12]

3) Write short notes on the following
      a) Segmentation
      b) Semiconductor and ferrite core memory
      c) Cache memory vs virtual memory   [12]

4) a) Explain programmed I/O.
    b) Write about various peripheral devices.   [12]

5) Write a note on distributed Shared Memory Multiprocessors.   [12]

6) What is Instruction level parallelism? Explain various data dependencies and
    Hazards.   [12]

7) a) Differentiate 'ILP using software approach' and 'ILP using hardware approach'.
    b) Write about thread level parallelism.   [12]

8) a) Write about RAID.
    b) Write about Interconnection network media.   [12]

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