

**R09**

**Code No: C3809, C5505**

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**M.Tech I Semester Examinations March/April-2011**

**ADVANCED COMPUTER ARCHITECTURE**

**(COMMON TO DIGITAL ELECTRONICS & COMMUNICATION,  
EMBEDDED SYSTEMS)**

**Time: 3hours**

**Max.Marks:60**

**Answer any five questions  
All questions carry equal marks**

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1. Explain the quantitative principles of computer design. [12]
2. a. Explain the Addressing modes for signal processing.  
b. Describe the role of compiler. [12]
3. a. Explain the limitations of the ILP?  
b. What is data hazard? Explain different types of data hazards. [12]
4. What is ILP? Explain the basic compiler techniques for exposing ILP. [12]
5. a. Explain the process of virtual memory protection.  
b. Explain how to reduce the penalty of cache misses and miss rate. [12]
6. Explain the architecture of symmetric shared memory. [12]
7. a) Explain the reliability, availability and dependability.  
b) Explain RAID? Explain various types of RAIDS. [12]
8. Explain the issues of interconnection networks. [12]

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