

Code No: **R32052****R10****Set No. 1****III B.Tech II Semester Supplementary Examinations, April – 2017****COMPUTER ARCHITECTURE****(Computer Science Engineering)****Time: 3 hours****Max. Marks: 75****Answer any FIVE Questions****All Questions carry equal marks**

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- 1 Describe at least four characteristics of MIMD multiprocessor that distinguish them from multiple computer systems or computer networks. [15M]
- 2 a) Draw and explain the memory hierarchy for personal mobile devices. [8M]  
b) Write a short note on Virtual Memory and Virtual Machines. [7M]
- 3 a) Make a comparison between the typical RISC and typical CISC processor architectures. [10M]  
b) Explain about Instruction-set Architectures. [5M]
- 4 a) Define latency. Explain Collision with scheduling latency. [7M]  
b) Give a brief note on Instruction Execution Phases. [8M]
- 5 a) Explain the principles of vector processing. [7M]  
b) Discuss the Cray Y-MP Multi vector Multiprocessors. [8M]
- 6 a) Briefly explain the Bus-Snooping Cache Coherence Protocols. [7M]  
b) Discuss the Directory-based cache coherence. [8M]
- 7 a) Explain MIMD with distributed Memory with a neat diagram. [7M]  
b) List and explain MIMD design Issues. [8M]
- 8 a) Write a short note on Complexity of PRAM Algorithms. [7M]  
b) Discuss about the Cray Line of Computer Systems. [8M]

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