

**Code No: 155AA****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****B. Tech III Year I Semester Examinations, February - 2022****ADVANCED COMPUTER ARCHITECTURE****(Computer Science and Engineering)****Time: 3 hours****Max. Marks: 75**

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

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- 1.a) Explain the Multiprocessors and Multi computers.  
b) Discuss the Multi vector and SIMD Computers. [7+8]
- 2.a) Elaborate the PRAM and VLSI models.  
b) Describe the System interconnect Architectures. [7+8]
- 3.a) Explain the Advanced Processor Technology.  
b) Explain the applications of parallel processing. [7+8]
- 4.a) Discuss the Speed up performance laws.  
b) Describe the processes and Memory Hierarchy. [7+8]
5. With the help of a neat diagram, explain the classification of pipeline processors in detail. [15]
- 6.a) Illustrate the Instruction Pipeline design.  
b) Explain about shared memory organization. [7+8]
- 7.a) Discuss the Multiprocessors and Multicomputer.  
b) Explain the message passing mechanisms. [6+9]
- 8.a) List and explain the Principals of Multithreading.  
b) Explain the data flow architecture. [7+8]

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