

**SUBJECT CODE NO:- P-8094**  
**FACULTY OF ENGINEERING AND TECHNOLOGY**  
**M.E.(CSE/SE) Examination MAY/JUNE-2016**  
**EI-1 Advanced Computer Architecture**  
**(Revised)**

[Time:Three Hours]

[Max Marks:80]

“Please check whether you have got the right question paper.”

- N.B i) Solve any **two questions** from each section.
- Section A**
- Q.1 a) Explain different approaches of scalability analysis? 07  
b) Explain cache memory organization? 07  
c) Explain parallel processing applications. 06
- Q.2 a) Explain Instruction pipeline design? 08  
b) Explain any one linear pipeline processor? 07  
c) Explain different problems in Arithmetic pipeline design. 05
- Q.3 Write short notes (**Any four**) 20  
i) Flynn’s classification.  
ii) SIMD Array processor  
iii) Super scalar pipe line design.  
iv) Interconnecting networks.  
v) Parallel algorithm for array processors.
- Section B**
- Q.4 a) What is vector processing? Explain domain area of vector processing? 08  
b) Explain array processor with diagram. 06  
c) Explain Associative array processors? 06
- Q.5 a) What is loosely coupled multiprocessor system? Describe different models. 08  
b) Explain cache coherence in detail. 06  
c) Explain message passing mechanism. 06
- Q.6 Write short notes on (**Any four**) 20  
i) RISC processors.  
ii) Parallel processing models  
iii) VLIW Architecture.  
iv) Vector Instructions  
v) Cross bar switch interconnection network.