

SUBJECT CODE:- 8250
FACULTY OF ENGINEERING AND TECHNOLOGY
M.E.(CSE/SE) Examination Nov/Dec 2015
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.

ii) Assume suitable data if necessary.

Section A

- Q.1 Write short notes (any two) 20
- i) Parallel processing applications
 - ii) Flynn’s classification.
 - iii) Performance metrics & measures
 - iv) Arithmetic pipeline design
 - v) Super scalar pipeline design.

- Q.2 a) Explain the basic features of an array processor SIMD machine with neat diagram. 10
b) Explain in detail non-linear pipeline processor. 10

- Q.3 a) Explain the role of parallel algorithms for array processors? 10
b) Explain instruction pipeline design in detail. 10

SECTION-B

- Q.4 a) What is associative array processing? Explain array processor in detail? 10
b) How the message passing mechanism is used in multicomputer? Describe challenges of message passing? 10

- Q.5 a) Explain in detail. Vector processing principles? Describe vector instructions. 10
b) What is tightly coupled multiprocessor system? Describe different models of the same. 10

- Q.6 Write short notes (any two) 20
- a) RISC processors
 - b) Parallel processing languages
 - c) VLIW architecture
 - d) Vector processors
 - e) Cache coherence