

FACULTY OF ENGINEERING

B.E. 4/4 (CSE) I-Semester (Main) Examination, November / December 2012

**Subject : Advanced Computer Architecture
(Elective-I)**

Time : 3 Hours

Max. Marks: 75

Note: Answer all questions of Part - A and answer any five questions from Part-B.

PART – A (25 Marks)

1. Explain basic parallel techniques. (3)
2. List out the basic approaches of ILP-instruction scheduling. (2)
3. Define Shelving buffering. (2)
4. What is ILP? Give examples. (3)
5. Explain hypercube connectivity of data-parallel architectures. (3)
6. What are neural computers? (2)
7. Describe synchronicity of systolic programmatically. (3)
8. What are the applications of convex system? (2)
9. List out the problems of scalable computers. (2)
10. Explain static data flow architecture. (3)

PART – B (5x10=50 Marks)

11. Discuss data dependencies and control dependencies. (10)
12. Discuss superscalar instruction issue policies. (10)
13. Explain the massively parallel processor of fine-grained SIMD architecture. (10)
14. Discuss design space of systolic architectures. (10)
15. Discuss hybrid multithreaded architectures. (10)
- 16 Explain about the associative string processor. (10)
- 17.(a) Discuss commercial VLIW architecture. (6)
(b) Explain guarded execution. (4)
