

Roll No. ....

Total Pages : 02

BT-6/J-25

46167

ADVANCED COMPUTER ARCHITECTURE  
PE-CS-S302A

Time : Three Hours]

[Maximum Marks : 75

**Note :** Attempt *Five* questions in all, selecting at least *one* question from each Unit. All questions carry equal marks.

**Unit I**

1. What are Instruction level parallel processors ? Also explain code scheduling for instruction level parallel processors in detail. 15
2. Define Computer architecture. Explain the taxonomy of parallel architectures in detail. 15

**Unit II**

3. What are VLIW processors ? Discuss VLIW processors and superscalar processors in detail. 15
4. Discuss the various approaches of branch handling in detail. Also discuss various branch prediction schemes. 15

### Unit III

5. What do you mean by MIMD ? Discuss two different classes of MIMD multicomputers. 15
6. Write short notes on the following : 15
- (i) Crossbar networks
  - (ii) NUMA
  - (iii) Static connection networks.

### Unit IV

7. What is cache coherence problem and when do you say a memory system is coherent ? What are cache coherence protocols ? 15
8. Explain memory hierarchy technology in detail. Also explain snoopy cache protocols and some software based protocols in detail. 15

EXAMKIT

