

Roll No. ....

## CS-605

**B. E. (Sixth Semester) EXAMINATION, June, 2012**

**(Computer Science & Engg. Branch)**

**ADVANCE COMPUTER ARCHITECTURE**

**(CS-605)**

*Time : Three Hours*

*Maximum Marks : 100*

*Minimum Pass Marks : 35*

**Note :** Attempt *one* question from each Unit. All questions carry equal marks.

### Unit-I

1. (a) Explain different computer models briefly. 10
- (b) Define the following : 10
  - (i) Multiprocessors
  - (ii) Multicomputers
  - (iii) Multivector

*Or*

2. (a) Compare static interconnection networks and dynamic interconnection networks. 10
- (b) Explain Hardware and Software parallelism. 10

### Unit-II

3. (a) Draw VLIW architecture. 10
- (b) Describe Interleaved memory organization. 10

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*Or*

4. (a) Explain Addressing and Timing protocols. 10
- (b) Describe Backplane Bus system. 10

### Unit-III

5. (a) Discuss different pipeline designs for processors. 10
- (b) What is Branch handling ? Also write its advantages. 10

*Or*

6. (a) Write Tomasulo's algorithm. 10
- (b) Draw superscalar pipeline design. 10

### Unit-IV

7. (a) What is snoopy protocols ? Where is it used ? 10
- (b) Discuss message routing schemes for multicomputer network. 10

*Or*

8. (a) Write vector processing principles. 10
- (b) Define virtual channel. Explain what is its need. 10

### Unit-V

9. (a) Describe about shared-variable model. 10
- (b) Write name of software; tools and environments for parallelism. 10

*Or*

10. (a) Draw message-passing model. 10
- (b) Write languages name for parallel programming. 10

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