

Roll No. ....

**24487**

**B. Tech. 7th Semester (CSE)**

**Examination – May, 2015**

**ADVANCED COMPUTER ARCHITECTURE**

**Paper : CSE-401-F**

*Time : Three Hours ]*

*[ Maximum Marks : 100*

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

*Note : Attempt five questions in all. Q. No. 1 is compulsory. Select one question from each Unit.*

1. (a) What is pipelined processor ? Explain.
- (b) What is On-Chip caches ?
- (c) What is memory module ?
- (d) What is multiple issue machines ?
- (e) What is virtual caches ? Explain.

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**SECTION – A**

2. (a) Write and explain various phases of processor project ? Explain.
- (b) Explain processor evaluation matrix.
3. (a) Explain different type of instruction set.
- (b) Describe three level of addressing.

**SECTION – B**

4. (a) What do you mean by Two-Level Caches ? Explain. <http://www.HaryanaPapers.com>
- (b) Explain different type of traffic created by instruction.
5. (a) Describe Split-I-and D-caches.
- (b) An integrated cache with two reference per instruction (one I reference and, one D reference). The data (D) references are divided: 68% reads, 32% writes 30% Dirty Lines, 8B Physical word, 64B line, 5% Read miss rate. Compute the memory traffic for a 5% miss rate for each.

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### SECTION - C

6. Explain models of multiple simple processors and memory.
7. (a) How to determine the waiting time, relative performance and buffer size ? Explain.  
(b) Describe Open-Queue memory model in details.

### SECTION - D

8. What is vector processor ? Describe vector functional units.
9. (a) What are the basic issues in multiprocessor ? Explain.  
(b) Explain memory coherence in shared memory multiprocessor.