Name:

Reg. No: .

EIGHTH SEMESTER B.TECH DEGREE EXAMINATION, JUNE 2013

## (2004 Scheme)

CS 04 802 - COMPUTER ARCHITECTURE & PARALLEL PROCESSING

Time: Three Hours

Maximum: 100 Marks

PART-A

1. State the role of compilers.

- 2. How is an instruction set encoded? Give an example.
- 3. What do you mean by instruction level parallelism?
- 4. Mention about the compiler and hardware support for instruction level parallelism.
- 5. How are the cache misses reduced in a system?
- 6. Differentiate the working of virtual memory and main memory.
- 7. Define synchronization.
- 8. Mention the steps involved in connecting more than two computers.

 $(8 \times 5 = 40 \text{ Marks})$ 

PART-B

II A) Define pipelining. Explain the various hazards in detail.

Or

- B) Explain the DLX architecture in detail.
- III A) Explain the dynamic scheduling mechanism in detail with an example.

Or

- B) Explain the vector processing concept in detail along with its architecture.
- IV A) Explain the Unix file system and its performance in detail.

Or

- B) Explain the I/O Systems and its working in detail.
- V A) Explain the models of memory consistency in detail.

Or

B) With an example, differentiate the working of the centralized memory and the distributed memory architectures. (15 x 4 = 60 Marks)

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