

Correct answers (in green) for Quizz1 AVDARK 2013

1) Which of these statements are true?

- Computer architecture is fun
- VIPT is a kind of victim cache
- High cache associativity implies high dynamic power
- $CPI=1/IPC$
- 4kB is a common page size for x86 architectures
- A skewed cache has many index functions
- ILP stand for Instruction Logic Processing
- Multicores leverages Thread-Level Parallelism

2) How many entries does a 1MB direct-mapped cache with 64B cache lines have?

- 4k
- 16k
- 64k

3) How many cycles does it take to execute one instruction

- Exact one cycle
- Exact as many cycles as there are pipeline stages
- At least as many cycles as there are pipeline stages

4) Viewing the virtual memory system (VM) as a cache, which of these statements are true?

- It is fully associative
- It often implement pseudo-LRU replacement strategies
- It is a write-through cache
- Pages are its cache lines

5) Which statements about VIPT caches are true?

- It stores virtual address tags
- A cache lookup is done before the TLB lookup
- It suffers from the synonym problems
- Is restrictive about how many index bits can be used