

Name:

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ICS 233, Term 072

Computer Architecture & Assembly Language

Quiz# 1

Date: Wednesday, Feb. 27, 2008

Q1. Fill the blanks in the following questions:

1. There is a one-to-one correspondence between _____ and _____.
2. Advantages of programming in high-level language are: _____, _____ and _____.
3. Advantages of programming in assembly language are: _____ and _____.
4. The processor consists of two main units: _____ and _____.
5. Given an address bus of 20 bits and data bus of 16 bits, the maximum memory size that can be interfaced with the CPU is _____ bytes and the maximum number of bytes that can be read in a single read/write cycle is _____ bytes.
6. _____ RAM is slower than _____ RAM but is denser and cheaper.
7. Given a magnetic disk with Rotation speed = 8000 RPM (rotations per minute). Then, the average rotation latency, i.e. average time to locate a needed sector is _____.
8. The need for a memory hierarchy is due to _____.
9. Cache memory is faster than _____ but slower than _____.

10. _____ is a register that holds the address of the next instruction to be fetched from memory.
11. Given that a wafer can be diced into 1000 dies, out of which 200 dies are defective. Then, the yield is _____.
12. The _____ is considered as an interface between software and hardware and consists of _____, _____ and _____.
13. _____ is a program that manages the resources of a computer for the benefit of the programs that run on that machine.
14. _____ is program that translates from high-level languages to assembly language.
15. _____ is a technology in which a single chip contains hundreds of thousands to millions of transistors.