

1. Suppose you have a CPU that is capable of consuming 128 words per clock cycle. You have a memory that is capable of producing one word (or perhaps two words) per clock cycle. How can you match the speed of the memory to the speed of the CPU? Give more than one technique.
2. Explain the differences between the DRAM (Dynamic RAM), SRAM (Static RAM), and Flash RAM.
3. Explain the terms SISD, SIMD, and MIMD.
4. Discuss the Cache Coherence problem. Explain the differences between snoopy protocols and directory-based protocols.
5. Draw a picture of a MOSFET and explain how it works.
6. Give a description of the SCSI protocol. Imagine that you want to read a sector from a SCSI disk, and use that as an example. In the process of doing this, explain why 8-bit SCSI can have only 8 devices on the bus.
7. Explain what happens when a USB device is plugged in (and the computer is already powered up and running.)