The Big Picture

Hardware

OS Services

Processor → Processes, scheduling, synchronization

Memory → Allocation, protection, addressing

I/O → Disk management, filesystems, networking
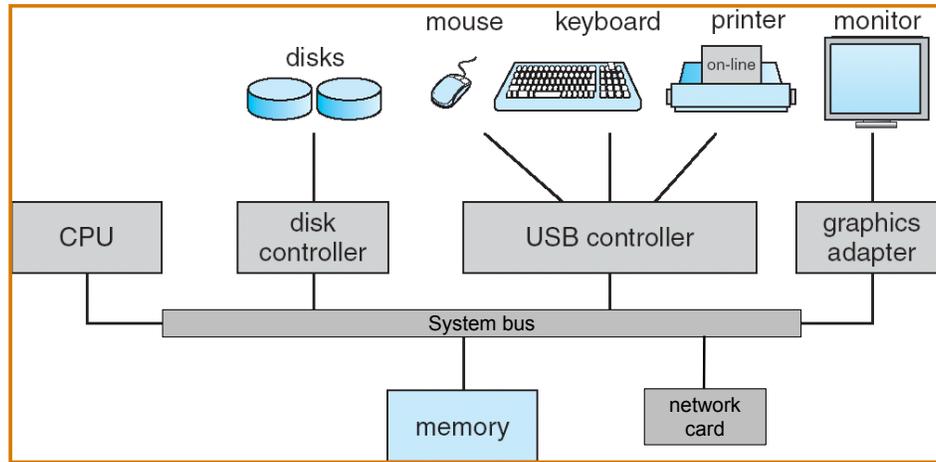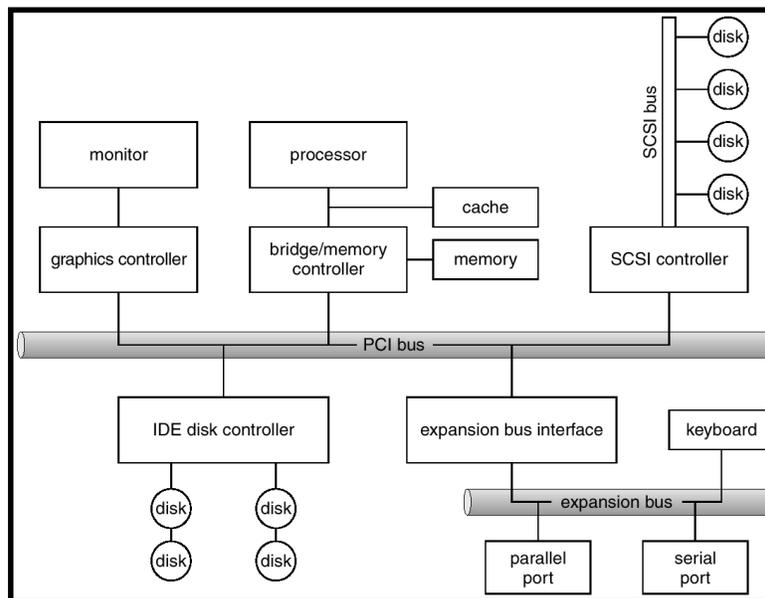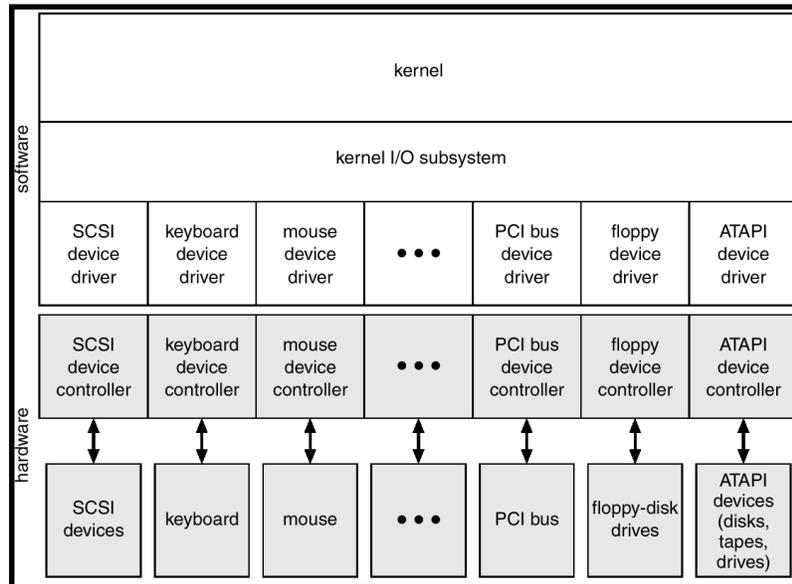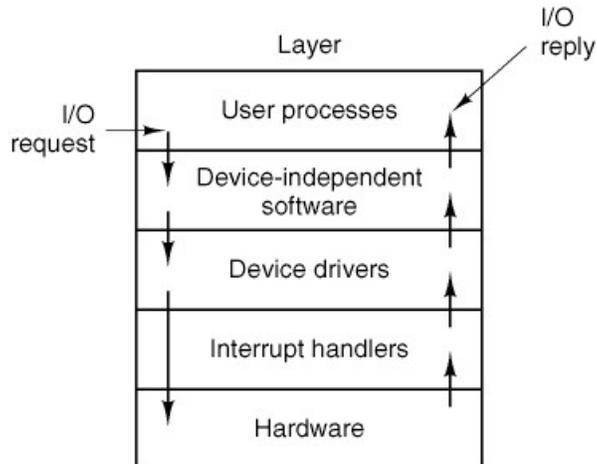
I/O Devices

System Architecture

Bus Structure

Device Drivers

I/O System Layers

Synchronous & Asynchronous I/O