

After his lecture you should be able to answer the following questions:

1. What is the purpose of IO modules?
2. What is programmed IO, interrupt driven IO, and DMA?
3. How do Magnetic Disks read and write data?
4. What is RAID and what are the RAID levels?
5. How does Optical storage read and write data?

Multiple choice questions (answers on the last page)

1. Which is not a function of an IO module ?
 - a. Control and timing
 - b. Data buffering
 - c. CPU and Device communication
 - d. speeding up the CPU
2. Using Programmed I/O the CPU
 - a. has direct control over I/O
 - b. Issues the command and receives an interrupt to transfer the data
 - c. Issues the command and receives an interrupt when the transfer is done.
 - d. is not needed.
3. Using DMA the CPU
 - a. has direct control over I/O
 - b. Issues the command and receives an interrupt to transfer the data
 - c. Issues the command and receives an interrupt when the transfer is done.
 - d. is not needed.
4. Access time is defined as
 - a. seek + latency time
 - b. recovery + transfer rate
 - c. recovery + seek time
 - d. latency + transfer rate
5. RAID 0 is
 - a. 2 mirrored drives
 - b. x drives and 1 parity drive
 - c. X drives with parity striped across all drives
 - d. data striped across all drives, no redundancy
6. RAID 1 is
 - a. 2 mirrored drives
 - b. x drives and 1 parity drive
 - c. X drives with parity striped across all drives
 - d. data striped across all drives, no redundancy
7. RAID 5 is
 - a. 2 mirrored drives
 - b. x drives and 1 parity drive
 - c. X drives with parity striped across all drives
 - d. data striped across all drives, no redundancy
8. A very cheap, slow, serial access device describes which of the following?
 - A. CDROM
 - B. Hard Drive
 - C. Disk
 - D. Tape

1. d 2. a 3. c 4. a 5. d 6. a 7. c 8. d