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Assignment No. 01
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Introduction to Computing-CS101

Solution By:

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Answer to Question # 1:

Compare Serial and Parallel Ports. Give any five points in tabular form

Serial Port	Parallel Port
Transmits 1 Bit of Data at a time	Transmit Multiple Bits of Data
Works Relatively Slow	Works Relatively Fast
Male Port	Female Port
Used for Mouse, Modem, Keyboard etc.	Used mostly for Printers
Less Numbers of Wires are Used for Communication	Many number of Wires are Used for Communication

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Serial

The serial interface does not suffer the same problems on the parallel port. The behavior of the serial port is now standard on all machines so no surprise. The real problems are: ports and a limited bandwidth. The serial interface is the slowest of the group. If a host adapter that to 400 kbit / s support, taking into account the fact that the serial interface supports only 115 kbps claims. It makes no sense.

Parallel

The parallel port can be fast enough for most applications, but suffers from many problems. The most important is that the port is not standard. Users of the parallel interface operate on OS or BIOS ask questions. And good luck trying to use the parallel port of the laptop. Most manufacturers have different implementations of the parallel port. In most teams there is usually only parallel port, which can cause headaches when the port to a printer or scanner to be shared.

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Parallel ports are easy to program and faster compared to the serial ports. But main disadvantage is it needs more number of transmission lines. Because of this reason parallel ports are not used in long distance communications. Let us know the basic difference between working of parallel port and serial port. In serial ports, there will be two data lines: One transmission and one receive line. To send a data in serial port, it has to be sent one bit after another with some extra bits like start bit, stop bit and parity bit to detect errors. But in parallel port, all the 8 bits of a byte will be sent to the port at a time and a indication will be sent in another line. There will be some data lines, some control and some handshaking lines in parallel port. If three bytes of data

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01000101 10011100 10110011 is to be sent to the port, parallel port communication is faster then serial port.

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Serial communication means less number of wire and it is slow, one by one bit of massege signal is send to reciever.parallel communication has so many numbers of wire & it is fast.

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Serial Communications and Parallel communications both define a way of transporation of data over networks.

- In Serial devices: transmit data bit-after-bit, serially over time. When 8 bits are received, after 8 bit-times (plus a little extra for signal synchronization), they are assembled back into a byte and delivered to the software.
- In Parallel communication: a word of some data length, say like 8 bits, travels all at once, along multiple parallel channels (one channel per bit position). At the receiver, an 8-bit byte is received every "bit time". In effect, you have 8 serial channels transmitting and receiving data simultaneously, making it (by definition) at least 8 times faster than a single serial channel using the same transceiver technology.

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