

ECT-215  
Data and Fiber Optic Communications  
Sr. Professor Wheeler

SPECIAL PROBLEM SET ON THE UNIVERSAL SERIAL BUS (USB)

Instructions: You will need to visit the following web sites to gather the information needed to answer the questions below. In a separate document, write your answers to the questions, making sure to use complete sentences.

Recommended web reading:

<http://www.howstuffworks.com/usb1.htm>

[http://www.usb.org/developers/data/usb\\_20.zip](http://www.usb.org/developers/data/usb_20.zip) (Note: 6+ MB file!)

1. What "problem" with computer peripherals is USB a solution to?
2. What are "A" and "B" connectors?
3. How many devices can be connected to a USB bus?
4. What is the maximum data transfer rate of any single device on the bus?
5. What is the total data transfer rate available on the bus?
6. What is the maximum current that can be drawn from a PC USB interface?
7. What hardware option *must* be implemented in any device that draws power from the USB?
8. What happens during enumeration?
9. List the three main data transfer modes supported by USB devices.