**Milestone Two GPIO UART Lab Questions**

**1. Why do both the SerialTest-Write.py and SerialLightControl-Client.py scripts use the encode() method of the string datatype when writing data to the serial port?**  
When sending data through a serial port, the computer needs to change the text into a format that can be sent like turning words into a language the computer understands. The encode() method changes the string into bytes, which is the form needed to send it over the serial port.

**2. Why does the SerialTest-Read.py script use the decode() method of the string datatype when reading the data from the serial port?**  
When the computer gets data from the serial port, it comes in as bytes via the encode() method and not regular text. The decode() method turns those bytes back into a readable string so the program can understand and show it as normal text.

**3. What is the purpose of the try/except block in both the SerialLightControl-Client.py script and the SerialLightControl-Server.py script?**  
The try/except block helps catch errors so the program doesn’t crash. If something goes wrong like a missing connection, the program can handle it safely instead of breaking. It’s like a safety net that catches mistakes and keeps things running smoothly.

**4. Why is it necessary to make sure that the GPIO pins are always returned to their original state at the end of program run?**  
GPIO pins control things like lights or motors. If you don’t reset them at the end, they might stay on or be in a bad state. This can cause problems or even damage stuff. Resetting them makes sure everything is safe and ready for the next time you use the program.