



Faculty of Engineering and Technology
Department of Electrical and Computer Engineering
Interfacing Laboratory - ENCS412
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Quiz #1

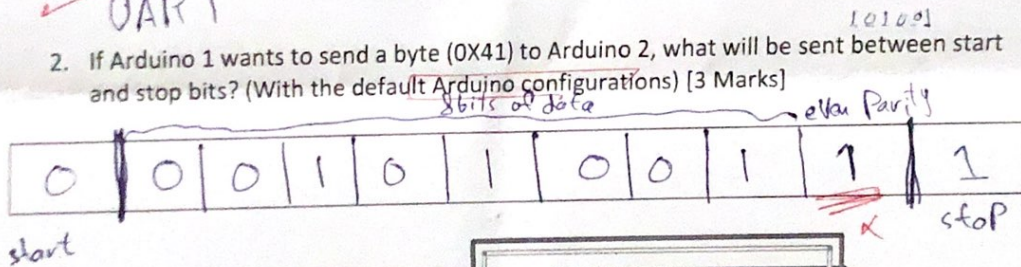
ID: 1181404

Q2: Consider the following figure and answer the following questions:

1. What protocol can be used with these connections? [1 Mark]

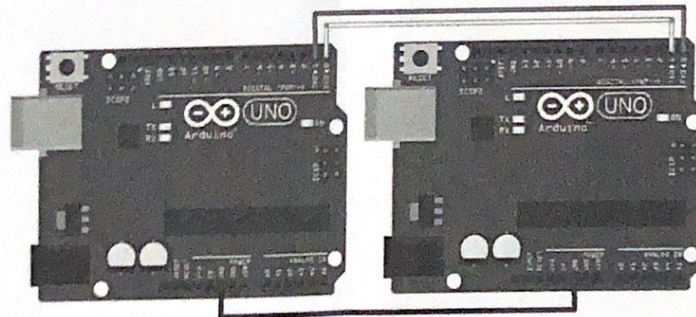
UART

2. If Arduino 1 wants to send a byte (0x41) to Arduino 2, what will be sent between start and stop bits? (With the default Arduino configurations) [3 Marks]



start

-1



Q2: List two differences between I2C and UART. [2 Marks]

- 2- UART is Asynchronous, I2C is synchronous "depends on a clock".
- 2- UART has stop and start bits, I2C starts when the data signal moves from high to low when the clock is high. I2C stops communicate when the data signal moves from low to high when the clock is high & arbitration.

Q3: How many wires are required for I2C communications? Describe them. [3 Marks]

2 wires.

SDA data wire : to move the data from the master to the slave
and to ~~the~~ carry the address of the slave.

SCL clock wire : to synchronize the data and to make the devices
knows when to communicate.

Q4: Who starts the communication in I2C protocol? [1 Mark]

Master