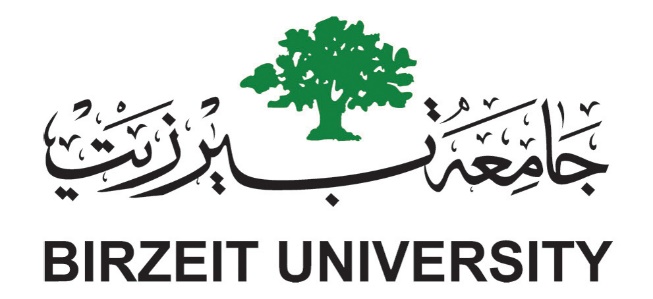
[](http://www.google.ps/url?sa=i&source=images&cd=&cad=rja&docid=TNC2o42g4wGV0M&tbnid=n9SnL2A2yBmR1M:&ved=0CAgQjRwwAA&url=http://sites.birzeit.edu/comp/ArabicOntology/news-events/siera-kick-off-conference-in-the-news/&ei=3wMlUZ6uGPKK4gT864CIAw&psig=AFQjCNG7NukYdzV3_HLvAhGHpdxIJPGq1Q&ust=1361466719460852)

**Department of Computer System Engineering**

**COMPUTER DESIGN LAB**

**ENCS 411**

**PRELAB 3**

**Experiment No. 6**

***Serial Data Communication Using RS-232***

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**Student Number: 1110017**

**Instructor: Dr. Ahmad Afaneh**

**Section: 3**

**Date: 31/03/2014**

* **From Figure 3 how can you explain why the address of COM1 is 3F8h?**

**From Figure 3**, we found that the is connected to NAND gate which has

(A9 A8 A7 A6 A5 A4 A3 AEN) as inputs, and is active low and so A9 … A3 will take the value of logic 1, COM1 is located at output zero using (A2 A1 A0), as a result:

COM1 has:

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| A9 | A8 | A7 | A6 | A5 | A4 | A3 | A2 | A1 | A0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |

Which equals 3F8H.

* **What are the values of 3F8 and 3F9 registers, when programming the UART to operate using baud rate to be 4800bps?**

Baud rate =1.8432M/ (16\*count)

4800 bps = 1.8432M / (16\*count)

Count = 1.8432M / (16 \* 4800) = 24

(24)10 = 00011000 ---> 18H

And so, we will send 18 (least significant) on 3F8 and 00 (most significant) 3F9.