**IVY TECH COMMUNITY COLLEGE**

**Intro to Binary Numbers**

**INTRODUCTION:** Evaluate and complete each Question and answer in the correct format.

**ASSIGNMENT: Evaluate and complete the problems.**

* Question 1 - Convert each of the following binary representations to its equivalent base ten representation:

1111 = 15

0001 = 1

10101 = 21

1000 = 8

10011 = 19

000000 = 0

1001 = 9

10001 = 17

100001 = 33

11001 = 25

11010 = 26

11011 = 27

* Question 2 - Convert each of the following base ten representations to its equivalent binary representation:

7 = 111

11 = 1011

16 = 10000

17 = 10001

31 = 11111

128 = 10000000

132 = 1000100

* Question 3 - Convert each of the following binary representations to its equivalent base ten representation:

10001 = 17

10101 = 21

01101 = 13

01111 = 15

11111 = 31

* Question 4 - What bit patterns are represented by the following hexadecimal notations?

CD = 11001101

67 = 01100111

9A = 10011010

FF = 11111111

10 = 00010000

* Question 5 - Express the following bit patterns in hexadecimal notation:

1010 0000 1010 = A0A

1100 0111 1011 = C7B

0000 1011 1110 = 0BE

0011 0101 0011 = 353

**To submit your assignment:**

Please answer the question on the Lab Document and submit your file through Canvas.