**Victor Castor**

**CS 10**

**Assignment 1A**

**Question 1**

* 100100101
* 100101001
* 11101100
* 11011100

**Question 2**

* C235
* 8A34
* F5E7
* C3AD

**Question 3**

* 1010 0011 0000 1111
* 1100 0001 1111 1111
* 1001 1000 0111 0110
* 0100 1101 0011 1010

**Question 4**

* 2A6
* 3E8
* 1000
* FF

**Question 5**

* 12
* 13
* 16
* 22

**Question 6**

* Level 4 High-Level language
  + Application Oriented Languages its statements resembles the terminology of user.
  + Examples of High-Level languages = Java, C, Python, or C++
  + Programs compile into assembly language.
* Level 3 Assembly Language
  + It is a human readable language.
  + Every mnemonic written will corresponds to a single instruction in machine code.
  + Oldest programming language.
  + A low-level programming language.
  + Closest to native machine language.
  + It can direct access to computer hardware, enabling user to understand computer’s architecture and operating system.
  + Programs are translated into Instruction Set Architecture Level.
* Level 2 Instruction Set Architecture
  + Computer architecture.
  + This is called as machine language.
  + The machine-language instruction can be executed by computer’s hardware or microprogram.
  + Executed by digital logic.
* Level 1 Digital Logic
  + Constructed from digital logic gates.
  + Examples or gates are AND, OR, XOR, NAND, and NOR.
  + Same with Boolean logic.
  + Makes decisions such as yes/no.
  + It is either 1 or 0. 1 for true/yes and 0 for false/no.
  + System bus.
  + Memory
  + Implemented using bipolar transistors