SIMON FRASER UNIVERSITY

School of Mechatronic Systems Engineering MSE 352 Digital Logic and Microcontrollers Problem Set I



- 1- Obtain the 1's and 2's complements of the following binary numbers:
 - (a) 00010000
- (b) 00000000
- (c) 11011010
- (d) 10101010
- (e) 10000101
- 2- Convert (AA)₁₆ and (55)₁₆ to binary then multiply them (assume signed 16 bit numbers).
- 3- (a) Convert C3DF to binary.
 - (b) Find the 2's complement of the result in (a).
- 4- * Convert decimal 6,514 to both BCD and ASCII codes.
- 5- Solve the following questions form the book. 1.7, 1.8, 1.10, 1.18, 1.20, 129*

^{*:} Find the ASCII codes on the Internet.