EE 208: Tutorial#1

1-( 1A2.4 )16 =(?)10 => 1 x 162 + 10 x 161 + 2 x 160 + 4 x 16-1 = (418.25)10

2- ( 1011 )2 =(?)10 => 1 x 23 + 0 x 22 + 1 x 21 + 1 x 20 = (11)10

3-(653.52)10 = (?)8

4-Convert (418.25)10 to Binary then to Octal and Hex

5-Convert (E8B)16 to Binary and Octal

6-Convert (542)8 to Binary then to Hex

7-1 1 0 0 1 1 - 0 1 1 1 0 1

8-110 X 101 , (AB)16 x (2F)16

9- 30-10, 10-30 using signed binary

Overflow & Underflow:

10- 70+80, -70-80 8 bit signed number

11- BCD







b) Odd



Solution:



Exercises

Q.1: Convert the following to Binary, Hex and Octal

(166.5)10 :

Q.2 :

1 1 0 0 1 1 0 – 0 1 1 1 1 0 1

Q.3 : 112+50 using 8 bit signed number, detect if there is an overflow and if there is, fix the problem.

Q.4 : What is the largest positive number that can be represented in sign magnitude format using 16-bits? Express in hexadecimal.